

# Nova Southeastern University Health Professions Division

2010–2011 Catalog



Nova Southeastern University • Health Professions Division • 2010–2011 Catalog

College of Osteopathic Medicine

College of Pharmacy

College of Optometry

College of Allied Health and Nursing

College of Medical Sciences

College of Dental Medicine



Health Professions Division

3200 South University Drive

Fort Lauderdale, Florida 33328-2018

(954) 262-1101 • 800-356-0026, ext. 21101

[www.nova.edu](http://www.nova.edu)



**Notice:** Credits and degrees earned from colleges within the state of Florida that are licensed by the State Board of Independent Colleges and Universities do not automatically qualify the individual to participate in professional examinations in Florida. The established procedure requires the appropriate state professional board to review and recognize the colleges granting the degrees prior to scheduling examinations. Additional information regarding Nova Southeastern University Health Professions Division and its Colleges of Osteopathic Medicine, Pharmacy, Optometry, Allied Health and Nursing, Medical Sciences, and Dental Medicine may be obtained by contacting the State Board of Independent Colleges and Universities, Department of Education, Tallahassee, Florida. Any student interested in practicing a regulated profession in Florida should contact the Department of Business and Professional Regulation, 2009 Apalachee Parkway, Tallahassee, Florida 32301.

This brochure is for information purposes only and does not represent a contract. Information contained herein is subject to change at any time by administrative decision or the direction of the Board of Trustees.

## **Accreditation**

Nova Southeastern University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097, Telephone number: 404-679-4501) to award associate's, bachelor's, master's, educational specialist, and doctoral degrees.

## **Notice of Nondiscrimination**

Consistent with all federal and state laws, rules, regulations, and/or local ordinances (e.g., Title VII, Title VI, Title III, Title II, Rehab Act, ADA, and Title IX), it is the policy of Nova Southeastern University not to engage in any discrimination or harassment against any individuals because of race, color, religion or creed, sex, pregnancy status, national or ethnic origin, nondisqualifying disability, age, ancestry, marital status, sexual orientation, unfavorable discharge from the military, veteran status, or political beliefs or affiliations, and to comply with all federal and state nondiscrimination, equal opportunity, and affirmative action laws, orders, and regulations.

This nondiscrimination policy applies to admissions; enrollment; scholarships; loan programs; athletics; employment; and access to, participation in, and treatment in all university centers, programs, and activities. NSU admits students of any race, color, religion or creed, sex, pregnancy status, national or ethnic origin, nondisqualifying disability, age, ancestry, marital status, sexual orientation, unfavorable discharge from the military, veteran status, or political beliefs or affiliations, to all the rights, privileges, programs, and activities generally accorded or made available to students at NSU, and does not discriminate in the administration of its educational policies, admission policies, scholarship and loan programs, and athletic and other school-administered programs.

# **Nova Southeastern University Health Professions Division**

**College of Osteopathic Medicine**

**College of Pharmacy**

**College of Optometry**

**College of Allied Health and Nursing**

**College of Medical Sciences**

**College of Dental Medicine**



# Table of Contents

Letter from the NSU Chancellor .....	1	Advanced Placement .....	34
Letter from the HPD Chancellor.....	2	Course of Study .....	34
Administration .....	3	<b>Curriculum Outline.....</b>	<b>36</b>
NSU Board of Trustees.....	4	<b>College of Osteopathic Medicine</b>	
NSU Mission Statement.....	5	<b>Course Descriptions .....</b>	<b>42</b>
HPD Board of Governors.....	6	<b>Affiliated Hospitals.....</b>	<b>56</b>
HPD Mission Statement .....	7	<b>Special Academic Programs .....</b>	<b>57</b>
2010–2011 Academic Calendar.....	8	The Interdisciplinary Generalist	
University History .....	10	Curriculum (IGC) Program .....	57
Campus .....	10	Osteopathic Principles	
Foreign Coursework.....	12	and Practice Laboratories.....	58
Admissions Policy.....	12	Area Health Education	
Background Checks.....	12	Center (AHEC) Program.....	58
Voluntary Withdrawal		Consortium for Excellence	
Tuition Refund Policy .....	13	in Medical Education (CEME).....	59
Florida Residency .....	14	West Palm Beach	
Financial Aid.....	14	Veterans Affairs Medical Center .....	59
Certificate of Physical Examination.....	15	Rural Medicine Program .....	60
Immunization Requirements.....	15	Preventive Medicine .....	60
Student Housing.....	16	Geriatric Teaching Program.....	61
Dress Code.....	18	M.B.A. Program.....	62
Identification Requirements		M.P.H. Program .....	62
and Fieldwork Prerequisites.....	19	Master of Health Law.....	62
Student Insurance Requirement .....	19	Master of Science in Education .....	62
Veterans' Benefits.....	20	D.O. Program for Doctors	
Service Units Learning Resources .....	21	of Podiatric Medicine (D.P.M.) .....	63
Health Care Centers .....	22	D.O./D.M.D. Dual-Degree Program .....	63
Core Performance Standards		<b>Master of Public Health Program.....</b>	<b>63</b>
for Admission and Progress .....	23	Program Mission .....	64
		Course of Study .....	64
		Accreditation.....	65
		Admission to the	
		Master of Public Health Program .....	65
		Graduate Certificate Programs.....	66
		Nondegree-Seeking Students.....	67
		Tuition and Fees .....	68
		Financial Aid.....	68
		Transfer of Credits.....	68
		Graduation Requirements.....	69
		<b>Curriculum Outline.....</b>	<b>70</b>
		<b>Master of Public Health</b>	
		<b>Program Courses .....</b>	<b>72</b>
		<b>Master of Science in</b>	
		<b>Biomedical Informatics .....</b>	<b>77</b>

Course of Study .....	78	Tuition and Fees .....	110
Admission to the Master of Science in Biomedical Informatics .....	79	Graduation Requirements .....	110
Application Procedures .....	80	International/Immigration Information .....	110
Nondegree-Seeking Students .....	80	<b>International Curriculum Outline.....</b>	<b>111</b>
Tuition and Fees .....	80	<b>College of Pharmacy</b>	
Transfer of Credits .....	80	<b>Course Descriptions .....</b>	<b>113</b>
Graduation Requirements .....	81	Basic Medical Sciences .....	113
Curriculum Requirements .....	81	Pharmacy—Required Courses.....	113
<b>Biomedical Informatics Program</b>		Elective Courses .....	123
<b>Curriculum Outline.....</b>	<b>82</b>	<b>Student Organizations.....</b>	<b>131</b>
Biomedical Informatics Core Courses .....	83	Student Council .....	131
Elective Courses .....	85	Other Organizations.....	131
<b>College of Osteopathic Medicine Departments .....</b>	<b>89</b>	<b>College of Pharmacy Faculty.....</b>	<b>131</b>
		Biochemistry .....	131
<b>College of Pharmacy</b>		Microbiology.....	131
Mission Statement.....	95	Physiology .....	131
Vision Statement .....	95	Pharmaceutical Sciences .....	131
Values .....	95	Sociobehavioral and Administrative Pharmacy .....	131
Administration .....	95	Pharmacy Practice .....	132
Pharmacy .....	96	<b>Experiential Sites.....</b>	<b>132</b>
Accreditation.....	96		
Facilities .....	96	<b>College of Optometry</b>	
Financial Aid.....	97	Mission Statement.....	143
Transfer Credits .....	97	Administration .....	143
Class Cancellation Policy .....	98	Optometry.....	143
<b>Entry-Level Program</b>		Accreditation.....	144
<b>Doctor of Pharmacy Degree.....</b>	<b>98</b>	Requirements for Admission.....	144
Requirements for Admission.....	98	The Application Process .....	145
Foreign Coursework.....	99	Tuition and Fees .....	146
Application Procedure .....	99	Financial Aid.....	147
Program Requirements .....	101	Undergraduate /O.D. Dual Admission Program .....	147
Tuition and Fees .....	101	Transfer Students.....	147
Undergraduate/Pharm.D.		Promotion, Suspension, Dismissal, and Readmission .....	148
Dual Admission Program .....	102	Requirements for Graduation .....	148
Internship.....	102	Course of Study .....	148
Course of Study .....	103	Extended (Five-Year) Doctor of Optometry Degree .....	149
Study Abroad.....	104	Student Organizations.....	149
Graduation Requirements .....	104	Master of Science in Clinical Vision Research Graduate Program.....	150
<b>Entry-Level Curriculum Outline.....</b>	<b>105</b>	<b>Traditional Four-Year Program</b>	
<b>International Pharmacy Graduates</b>		<b>Curriculum Outline.....</b>	<b>151</b>
<b>Doctor of Pharmacy Degree.....</b>	<b>107</b>		
Admissions Requirements .....	107		
Application Procedures .....	108		
Requirements .....	110		

Extended Program Curriculum Outline .....	154
--	-----

College of Optometry Course Descriptions .....	158
Medical Sciences .....	158
Optometric Basic Sciences.....	159
Optometry Clinical Education.....	164

## College of Allied Health and Nursing

Mission Statement.....	169
Administration .....	169
College of Allied Health and Nursing.....	170
Expenses and Financial Aid.....	171
Transfer Credits .....	171
Promotion, Suspension, Dismissal, and Readmission.....	171

## Audiology Department

Program Overview.....	172
Accreditation.....	172
Requirements for Admissions .....	172
Computer Requirements .....	173
Application Procedures.....	174
Personal Interviews.....	174
Tuition and Fees .....	174
Requirements for Graduation .....	175
Course of Study: Postbachelor's Program.....	175

### Curriculum Outline:

Postbachelor's Program.....	176
Curriculum Outline: UK Program.....	178
Audiology Course Descriptions.....	178

## Occupational Therapy Department

Accreditation.....	183
Master of Occupational Therapy Admissions Requirements.....	184
Master of Occupational Therapy Application Procedures.....	185
Undergraduate/Occupational Therapy Department Dual Admission Program ....	186
Tuition and Fees .....	187
Computer Requirements .....	187
Master of Occupational Therapy Course of Study .....	188
Requirements for Graduation .....	188

Curriculum Outline for Master of Occupational Therapy Program .....	189
--	-----

Doctoral Programs in Occupational Therapy .....	191
Doctor of Occupational Therapy (Dr.OT).....	191
Doctor of Philosophy (Ph.D.).....	193
Computer Requirements .....	195
Nonmatriculating Students.....	195
Occupational Therapy Course Descriptions .....	196

## Physical Therapy Department

Physical Therapy Student Organizations .....	205
---	-----

Entry-Level Doctor of Physical Therapy (D.P.T.) .....	206
Application Procedures.....	207
Undergraduate/Entry-Level Doctor of Physical Therapy Dual Admission Program .....	209
Requirements for Graduation .....	210

Full-Time Entry-Level Doctor of Physical Therapy Curriculum Outline.....	211
--	-----

Tampa Hybrid Entry-Level Doctor of Physical Therapy Curriculum Outline.....	213
---	-----

Entry-Level Doctor of Physical Therapy Course Descriptions .....	215
---	-----

Postprofessional Doctoral Programs in Physical Therapy .....	228
Transition Doctor of Physical Therapy Program (T-D.P.T.) .....	228
Application Procedures .....	230
Curriculum Overview.....	230

Transition D.P.T. Course Descriptions .....	233
Doctor of Philosophy in Physical Therapy (Ph.D.).....	237
Curriculum Overview.....	237
Application Procedures .....	238

Doctor of Philosophy in Physical Therapy Course Descriptions .....	240
---	-----

## Physician Assistant Department— Fort Lauderdale

Accreditation.....	246
--------------------	-----

Mission Statement.....	246	Requirements for Graduation .....	279
Admissions Requirements.....	246	Academic Dismissal in the Physician Assistant Program.....	279
Computer Requirements .....	247	Readmission Policy in the Physician Assistant Program.....	279
Application Procedures.....	248	Remediation Policy .....	279
Tuition and Fees .....	249	Course of Study .....	280
Requirements for Graduation .....	249	<b>Curriculum Outline for the Master of Medical Science (M.M.S.) in Physician Assistant Program—Orlando .....</b>	<b>282</b>
Academic Dismissal in the Physician Assistant Program.....	249	<b>Physician Assistant—Orlando Course Descriptions .....</b>	<b>285</b>
Readmission Policy in the Physician Assistant Program.....	250	<b>Physician Assistant Department— Jacksonville</b>	
Course of Study .....	250	Accreditation.....	291
<b>Curriculum Outline for the Master of Medical Science (M.M.S.) Physician Assistant Program— Fort Lauderdale .....</b>	<b>251</b>	Mission Statement.....	292
<b>Physician Assistant—Fort Lauderdale Course Descriptions.....</b>	<b>254</b>	Admissions Requirements.....	292
<b>Physician Assistant Department— Southwest Florida</b>		Computer Requirements .....	293
Accreditation.....	260	Application Procedures.....	293
Mission Statement.....	261	Undergraduate/Physician Assistant Dual Admission Program—Jacksonville .....	295
Admissions Requirements.....	261	Tuition and Fees .....	295
Computer Requirements .....	262	Requirements for Graduation .....	296
Application Procedures.....	263	Academic Dismissal in the Physician Assistant Program.....	296
Undergraduate/Physician Assistant Dual Admission Program with Hodges University .....	264	Readmission Policy in the Physician Assistant Program.....	296
Tuition and Fees .....	265	Course of Study .....	296
Requirements for Graduation .....	265	<b>Curriculum Outline for the Master of Medical Science (M.M.S.) in Physician Assistant Program—Jacksonville.....</b>	<b>298</b>
Academic Dismissal in the Physician Assistant Program.....	265	<b>Physician Assistant—Jacksonville Course Descriptions .....</b>	<b>300</b>
Readmission Policy in the Physician Assistant Program.....	266	Sources of Additional Information.....	306
Course of Study .....	266	<b>Department of Health Science</b>	
<b>Curriculum Outline for the Master of Medical Science (M.M.S.) in Physician Assistant Program—Southwest Florida ...</b>	<b>267</b>	Computer Requirements .....	307
<b>Physician Assistant—Southwest Florida Course Descriptions .....</b>	<b>269</b>	<b>Bachelor of Health Science Online Degree Completion Program.....</b>	<b>308</b>
<b>Physician Assistant Department— Orlando</b>		Description of Curriculum .....	308
Accreditation.....	275	General Education .....	309
Mission Statement.....	275	Admissions Requirements .....	311
Admissions Requirements.....	275	Transfer Credit Policy.....	312
Computer Requirements .....	277	Distance Education Support .....	313
Application Procedures.....	277		
Tuition and Fees .....	279		



Technical Help .....	314	Vision .....	349
Testing Services .....	314	Admissions Requirements .....	349
Application Procedures .....	314	Computer Requirements .....	350
Tuition and Fees .....	315	Personal Interviews.....	350
Requirements for Graduation .....	316	Tuition and Fees .....	350
Graduation with Honors .....	316	Application Procedures .....	351
Commencement .....	316	Requirements for Graduation .....	352
Nondegree-Seeking Students .....	316	<b>Anesthesiologist Assistant Curriculum— Fort Lauderdale .....</b>	<b>353</b>
Computer Skills.....	317	<b>Anesthesiologist Assistant—Fort Lauderdale Course Descriptions.....</b>	<b>356</b>
Address and Name Changes .....	317	<b>M.H.Sc.—Anesthesiologist Assistant, Tampa .....</b>	<b>363</b>
<b>Bachelor of Health Science— Vascular Sonography (On-Campus, Entry-Level) .....</b>	<b>318</b>	Accreditation.....	363
Curriculum Overview.....	318	Mission.....	364
Admissions Requirements .....	319	Vision.....	364
Application Procedures .....	320	Admissions Requirements .....	364
Distance Education Support .....	321	Computer Requirements .....	365
Tuition and Fees .....	321	Personal Interviews.....	365
Requirements for Graduation .....	322	Tuition and Fees .....	366
Graduation with Honors .....	322	Application Procedures .....	366
Computer Skills.....	322	Requirements for Graduation .....	367
Accreditation, National Examinations, and Registry .....	322	<b>Anesthesiologist Assistant Curriculum— Tampa .....</b>	<b>368</b>
<b>Curriculum Outline Bachelor of Health Science—Vascular Sonography</b>	<b>323</b>	<b>Anesthesiologist Assistant—Tampa Course Descriptions .....</b>	<b>370</b>
<b>Bachelor of Health Science Course Descriptions .....</b>	<b>324</b>	Sources of Additional Information.....	377
<b>Master of Health Science Program for Health Professionals.....</b>	<b>332</b>	<b>Master of Health Science—Vascular Sonography (On-Campus, Entry-Level) ..</b>	<b>377</b>
Admissions Requirements .....	332	Program Objectives .....	377
Tuition and Fees .....	334	Curriculum Overview.....	378
Application Procedures .....	334	Accreditation, National Examinations, and Registry .....	379
Requirements for Graduation .....	335	Prerequisites.....	379
Course of Study .....	336	Admissions Requirements .....	379
<b>Curriculum Outline— Master of Health Science Program.....</b>	<b>337</b>	Personal Interviews.....	379
Specialty Tracks in the Master of Health Science Program.....	338	Application Procedures .....	380
<b>Master of Health Science Course Descriptions .....</b>	<b>342</b>	Distance Education Support .....	381
Didactic Core Component Courses.....	342	Tuition and Fees .....	381
Elective Courses .....	342	Requirements for Graduation .....	382
Practical Components.....	347	Graduation with Honors.....	382
<b>M.H.Sc.—Anesthesiologist Assistant, Fort Lauderdale .....</b>	<b>347</b>	Computer Skills.....	382
Accreditation.....	348	<b>Curriculum Outline Master of Health Science—Vascular Sonography .....</b>	<b>383</b>
Mission.....	348	<b>Master of Health Science—Vascular Sonography Course Descriptions .....</b>	<b>384</b>
		<b>Accelerated Dual-Degree M.H.Sc./D.H.Sc. Program .....</b>	<b>387</b>

Admissions Requirements.....	388	R.N. to B.S.N. Tuition and Fees.....	434
Tuition and Fees .....	388	<b>Curriculum Outline—</b>	
Application Procedures.....	389	<b>R.N. to B.S.N. Track .....</b>	<b>435</b>
Computer Requirements .....	389	<b>R.N. to B.S.N. Course Descriptions ...</b>	<b>437</b>
Requirements for Graduation .....	389	R.N. to M.S.N. Track Admissions	
Specific Requirements for Graduation ...	390	Requirements.....	439
Course of Study .....	392	R.N. to M.S.N. Application Procedures	440
<b>Course Descriptions .....</b>	<b>394</b>	R.N. to M.S.N. Tuition and Fees.....	440
Master of Health Science.....	394	<b>Curriculum Outline—R.N.</b>	
Doctor of Health Science .....	395	<b>to M.S.N. Track .....</b>	<b>441</b>
<b>Doctor of Health Science</b>		<b>Graduate Nursing Program.....</b>	<b>443</b>
<b>(D.H.Sc.) Program .....</b>	<b>399</b>	<b>Master of Science in</b>	
Admissions Requirements.....	399	<b>Nursing (M.S.N.).....</b>	<b>443</b>
Application Procedures .....	400	Admissions Requirements.....	443
Tuition and Fees .....	401	Application Procedures.....	444
Requirements for Graduation .....	401	Tuition and Fees .....	444
<b>Curriculum Outline.....</b>	<b>402</b>	Academic Policies .....	444
<b>Doctor of Health Science</b>		Courses of Study.....	445
<b>Course Descriptions .....</b>	<b>404</b>	<b>Curriculum Outline—</b>	
Capstone Course (all) .....	409	<b>M.S.N. Program .....</b>	<b>446</b>
<b>Doctor of Philosophy (Ph.D.) in Health</b>		<b>Post-Master of Science in Nursing</b>	
<b>Science Program.....</b>	<b>410</b>	<b>Certificate (Post-M.S.N. Certificate) ..</b>	<b>447</b>
Admissions Requirements.....	410	Admissions Requirements.....	447
Application Procedures.....	411	Application Procedures.....	447
Transfer of Credits .....	412	Tuition and Fees .....	447
Tuition and Fees .....	412	Academic Policies .....	447
Requirements for Graduation .....	412	Transfer Credits .....	447
Computer Requirements .....	413	Progression Requirements .....	447
<b>Curriculum Outline.....</b>	<b>414</b>	Certificate Completion Requirements ...	448
<b>Doctor of Philosophy in Health Science</b>		Course of Study .....	449
<b>Course Descriptions .....</b>	<b>416</b>	<b>M.S.N. Course Descriptions .....</b>	<b>449</b>
<b>Nursing Department</b>		<b>Doctor of Philosophy in</b>	
Department Mission Statement.....	422	<b>Nursing Education (Ph.D.).....</b>	<b>452</b>
Accreditation.....	422	Admissions Requirements.....	452
Undergraduate Courses of Study .....	422	Application Procedures.....	453
B.S.N. Program Goals .....	423	Tuition and Fees .....	453
Entry-Level B.S.N. Track		<b>Curriculum Outline—</b>	
Admissions Requirements.....	423	<b>Ph.D. Program.....</b>	<b>454</b>
Entry-Level B.S.N.		<b>Ph.D. Program</b>	
Application Procedures.....	424	<b>Course Descriptions .....</b>	<b>455</b>
Entry-Level Track Tuition and Fees.....	425		
<b>Curriculum Outline—</b>		<b>College of Medical Sciences</b>	
<b>Nursing Entry-Level Track.....</b>	<b>426</b>	Mission Statement.....	463
<b>Entry-Level Course Descriptions .....</b>	<b>427</b>	Administration .....	463
R.N. to B.S.N. Track		Degree Programs.....	463
Admissions Requirements.....	433	Accreditation.....	463
R.N. to B.S.N. Application Procedures... 433		Admissions Requirements.....	463
		Application Procedures.....	464

Schedule of Application for Admission Cycle.....	464
Tuition and Fees .....	464
Transfer Credits .....	465
Dismissal and Suspension.....	465
Policy on Readmission .....	465
Graduation Requirements.....	466
Course of Study .....	466
Student Organization .....	466
<b>College of Medical Sciences</b>	
Course Descriptions .....	467

### **College of Dental Medicine**

Mission Statement.....	473
Administration .....	473
Dental Medicine.....	473
Accreditation.....	474
Facilities.....	474
<b>Predoctoral Program</b> .....	474
Requirements for Admission .....	474
Required Courses.....	475
Other Courses.....	475
Suggested Additional Preparation .....	475
Transfer of Credit Policy .....	475
Application Procedure .....	476
Tuition and Fees .....	477

### **International Dental**

<b>Graduate Program</b> .....	478
Requirements for Admission.....	478
Application Procedures .....	478
Tuition and Fees .....	480
Expenses and Financial Aid for All Predoctoral Programs.....	480
Policies Related to Academic and Student Affairs .....	481
Graduation Requirements.....	481
Course of Study .....	481
2010–2011 Curriculum Outline.....	482

### **College of Dental Medicine**

Course Descriptions .....	490
Interdisciplinary Biomedical Sciences.....	490
Division of Primary Care.....	491
Division of Developmental Sciences.....	502
Division of Surgical Sciences.....	505

<b>Related Educational Programs.....</b>	<b>509</b>
--	------------

<b>Research.....</b>	<b>511</b>
----------------------	------------

<b>Postdoctoral Programs .....</b>	<b>511</b>
Postdoctoral Core Courses .....	511
Postdoctoral Specialties.....	512
Anticipated Expenses.....	517
Requirements for Admission.....	517
Application Procedures .....	518
Postdoctoral Tuition and Fees.....	518

### **Health Professions Division Faculty**

Emeritus Faculty .....	523
Full-time Faculty.....	524
Adjunct/Clinical/Visiting Faculty.....	559





## Letter from the NSU Chancellor



Ray Ferrero, Jr., J.D.  
NSU Chancellor

Nova Southeastern University is Florida's largest independent university, based on enrollment, and the seventh largest, not-for-profit, independent institution in the United States. As chancellor of NSU, I invite you to become an ambassador of this remarkable educational showcase that has now entered its fifth decade.

In 1967, NSU served an entire student body of 17 from one building. Today, we have more than 29,000 students enrolled in 16 academic centers, with programs offered in virtually every state and many foreign countries. The university boasts more than 130,000 alumni.

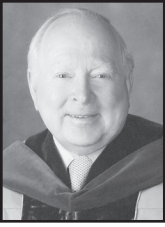
The university's sustained growth is due, in large part, to its exploration of alternative strategies in educating professionals, as well as its commitment to excellence in academics and clinical collaboration at all levels and with diverse partners.

As you pursue your studies at Nova Southeastern University, you are welcomed as a member of the university community. Along with your membership to the university community comes many rights and responsibilities. This catalog outlines these rights and responsibilities, university policies and procedures, and university resources.

We look forward to a lifelong partnership with you, our student. The entire NSU community is dedicated to providing service and academic excellence to you as you continue on the road to graduation and your success in the new millennium.

Ray Ferrero, Jr.  
NSU Chancellor

## Letter from the HPD Chancellor



Frederick Lippman,  
R.Ph., Ed.D.  
HPD Chancellor

If you wish to be a leader in the health professions, Nova Southeastern University can help you reach your potential.

The Health Professions Division is unique in that it has been developed as an interdisciplinary educational center from its inception. The division was founded on the concept that the interdisciplinary approach to education is beneficial to students of all professions, and by preparing students to work effectively with health care providers from different fields, barriers are broken and patient care is enhanced.

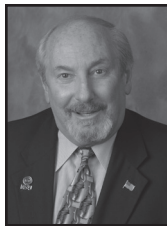
In less than two decades, NSU's Health Professions Division has developed into a multidisciplinary academic health center of international stature. Composed of the Colleges of Osteopathic Medicine, Pharmacy, Dental Medicine, Optometry, Allied Health and Nursing, and Medical Sciences, the health professions division continues its commitment to academic excellence, innovation, and community service, while expanding its mission in research and scholarship. Together, as a team, the distinguished faculty prepares students for an exciting career on tomorrow's dynamic health care team.

Frederick Lippman, R.Ph., Ed.D.  
HPD Chancellor

## Administration



Irving Rosenbaum,  
B.A., M.P.A., D.P.A., Ed.D.  
Executive Dean for  
Administration



A. Alvin Greber,  
D.O., FACOI  
Executive Dean for  
Professional Affairs

Ray Ferrero, Jr., J.D.  
*NSU Chancellor*

George L. Hanbury II, Ph.D.  
*President*

Frederick Lippman, R.Ph., Ed.D.  
*HPD Chancellor*

Irving Rosenbaum, B.A., M.P.A., D.P.A., Ed.D.  
*Executive Dean for Administration*

A. Alvin Greber, D.O., FACOI  
*Executive Dean for Professional Affairs*

Stanley Cohen, B.S., M.Ed., Ed.D.  
*Executive Vice Dean for Educational Support*

Raymond G. Ferrero III, J.D.  
*Executive Director of Intramural Health Affairs*

Jay M. Tischenkel, B.Sc., R.Ph.  
*Director, Institutional Advancement*

Steve Weinstein, CPA  
*Director of Finance*

Robert S. Oller, D.O.  
*Chief Executive Officer, NSU Clinics*



## **Nova Southeastern University Board of Trustees**

Ronald G. Assaf, Chair

Barry J. Silverman, M.D., Vice Chair

Ray Ferrero, Jr., J.D., Chancellor

George L. Hanbury II, Ph.D., President

W. Tinsley Ellis, J.D., Secretary

Mitchell W. Berger, J.D.

Keith A. Brown

Rick Case

Andrew J. DiBattista

R. Douglas Donn

Arthur J. Falcone

Silvia M. Flores, M.D.

David W. Horvitz

H. Wayne Huizenga

Royal F. Jonas, J.D.

Milton L. Jones, Jr.

Alan B. Levan

Nell McMillan Lewis, Ed.D.

Thomas E. Lynch

Albert J. Miniaci

Samuel F. Morrison

Paul M. Sallarulo

E. Clay Shaw, Jr.

Franklin L. Smith, Ed.D.

J. Kenneth Tate

Zachariah P. Zachariah, M.D.

### **Ex Officio**

George I. Platt, J.D.

Martin R. Press, J.D.

Tony Segreto

Michael Zager

### **Honorary Trustee**

Hamilton C. Forman

### **University President Emeritus**

Abraham S. Fischler, Ed.D.

## **Nova Southeastern University Mission Statement**

Nova Southeastern University, a private, not-for-profit institution, offers a diverse array of innovative academic programs at the undergraduate, graduate, and professional levels, complementing on-campus educational opportunities and resources with accessible distance learning programs, and fostering intellectual inquiry, leadership, and commitment to community through engagement of students and faculty in a dynamic, life-long learning environment.

## Health Professions Division Board of Governors

Royal Flagg Jonas, J.D.,  
Chairman

Howard Neer, D.O.,  
Secretary

Jay M. Tischenkel, B.Sc., R.Ph.,  
Treasurer

Ray Ferrero, Jr., J.D.,  
NSU Chancellor

George L. Hanbury II, Ph.D.,  
NSU President

Ronald G. Assaf

Robert Barron

Howard Braverman, O.D.

Frank DePiano, Ph.D.

Rosebud Foster, Ed.D.

Jeffrey S. Grove, D.O.

Peter Keller, D.D.S.

Marcelino Oliva, D.O.

Anthony Ottaviani, D.O., M.P.H.

Joel Rush, D.O.

Sandra L. Schwemmer, D.O.

Phillip L. Shettle, D.O.

Barry J. Silverman, M.D.

J. Kenneth Tate

Joel Wilentz, M.D.

### *Emeritus:*

Thomas F. Carney, D.O.

Mervin E. Meck, D.O.

Sidney J. Stern, O.D.

## **Health Professions Division Mission Statement**

The mission of Nova Southeastern University Health Professions Division is to train primary care health practitioners in a multidisciplinary setting, with an emphasis on medically underserved areas.

The institutional premise is that health professionals should be trained in a multidisciplinary setting and, whenever possible, with integrated education. The university trains students in concert with other health profession students so that the various disciplines will learn to work together as a team for the good of the public's health. During their didactic work, students share campus facilities and, in some cases, have combined classes. In their clinical experiences, they work together in facilities operated by the university.

Furthermore, the division aims to educate health care practitioners who will eventually increase the availability of health care in areas of Florida that suffer from health care shortages. The division aims to alleviate some of these shortages by exposing the entire student body to the needs, challenges, and rewards of rural, underserved urban, and geriatric care. Existing curricula require all students to attend ambulatory care clerkships in rural or urban areas, or both, making Nova Southeastern University strongly oriented toward a pattern of training its students in areas geographically removed from the health center itself, and to the care of indigent and multicultural population groups.

In doing this, it developed training programs that address the primary care needs of the region's most medically underserved populations.

## 2010–2011 Academic Calendar

**Note:** Individual college schedules may be obtained from the college offices. All dates are subject to change by the administration.

Monday–Friday, July 26–30, 2010 .....	Fall orientation and registration week
Sunday, August 1, 2010 .....	Family official orientation/registration
Monday, August 2, 2010.....	Classes begin, freshmen
Friday, August 27, 2010 .....	Graduation rehearsal, College of Allied Health and Nursing
Saturday, August 28, 2010.....	Senior Awards Dinner, College of Allied Health and Nursing
Sunday, August 29, 2010.....	Graduation, College of Allied Health and Nursing
Monday, September 6, 2010 .....	Labor Day, <b>university closed</b>
Wednesday, November 24, 2010.....	Thanksgiving recess begins, <b>5:00 p.m.</b>
Thursday–Friday, November 25–26, 2010.....	Thanksgiving Holiday, <b>university closed</b>
Monday, November 29, 2010 .....	Classes resume
Friday, December 17, 2010.....	Winter recess begins, <b>5:00 p.m.</b>
Friday, December 24, 2010–	
Sunday, January 2, 2011 .....	Winter closure, <b>university closed</b>
Monday, January 3, 2011 .....	Classes resume
Monday, January 17, 2011.....	Martin Luther King Day, <b>university closed</b>
Monday–Friday, March 14–18, 2011 .....	Spring recess, <b>no classes</b>
Monday, March 21, 2011 .....	Classes resume
Saturday, May 28, 2011 .....	Senior Awards Dinner
Sunday, May 29, 2011.....	Graduation
Monday, May 30, 2011 .....	Memorial Day, <b>university closed</b>
Tuesday–Friday, May 31–June 3, 2011 .....	Orientation, College of Allied Health and Nursing

Monday, July 4, 2011 .....Independence Day, **university closed**  
Saturday, August 27, 2011.....Senior Awards Dinner, College of Allied  
Health and Nursing  
Sunday, August 28, 2011 .....Graduation, College of Allied Health  
and Nursing  
Monday, September 5, 2011 .....Labor Day, **university closed**

## University History

Sustained growth and unity has made Nova Southeastern University (NSU) the largest independent university in the state of Florida. This growth culminated in January 1994, when Nova University and Southeastern University of the Health Sciences merged to become Nova Southeastern University.

Nova University was chartered in 1964 as a graduate institution in the physical and social sciences. Over time, Nova added programs in law, education, business, psychology, computer science, oceanography, social and systemic studies, and hospitality, and, in 1972, introduced its first off-campus course of study, in education. Soon, Nova became nationally recognized for its innovative distance learning programs. Today, field-based programs are located in 32 other Florida cities, in nearly 30 other states, and at selected international sites.

While Nova continued to expand its educational reach, Southeastern University of the Health Sciences also was on an expansion course. Southeastern was created by osteopathic physicians committed to establishing a College of Osteopathic Medicine in the Southeast. As a result, Southeastern College of Osteopathic Medicine, as it was first known, opened in 1981.

From 1987 to 1997, Southeastern added Colleges of Pharmacy, Optometry, Allied Health, Medical Sciences, and the College of Dental Medicine, which admitted 88 students in 1997. This growth was unprecedented, but not

unsurpassed. There was still more to come.

The merger brought on new possibilities. Prior to 1994, Nova had evolved with innovative technology and Southeastern expanded to provide much needed health care education. With the merger, Nova Southeastern University's resources make possible a more transdisciplinary education. Students have an opportunity to integrate across the disciplines and understand how their professions relate to society as a whole.

## Campus

Nova Southeastern University's Health Professions Division offers a rare blend of tropical South Florida weather, plentiful sunny beaches, an easily accessible campus, a dedicated and professional faculty, well established affiliations with many hospitals, clinics, and health care systems in the area, and a mission to educate professionals capable of providing the highest quality health care service.

The university's main campus is located on a lush 300-acre site in the Greater Fort Lauderdale area, 10 miles inland of the Atlantic Ocean and readily accessible via several highways and Florida's Turnpike.

The Health Professions Division complex, dedicated in June 1996, is located on 21 acres and encompasses more than 1 million square feet of buildings. The division comprises the Colleges of Osteopathic Medicine, Pharmacy, Optometry, Allied Health and Nursing, Medical Sciences, and Dental Medicine.

The division elicited input from students and faculty members and incorporated innovations in architecture, ergonomics, and computer-aided technology to provide facilities that enhance the learning experience.

The complex is an arrangement of eight buildings, four of which are connected by air conditioned lobbies. The Sanford L. Ziff Health Care Center, physical plant, and 1,600-space garage are connected to the central buildings by covered walkways. Administration and faculty offices are on the upper levels of the five-story Terry Administration Building, with the departments of admissions and student affairs, and a cafeteria located on the first floor.

Located in the lobby of the Terry Building, the Health Museum exhibits artifacts and antiques representing each of the colleges of the Health Professions Division. The collection houses an informative and historical display of medical memorabilia for students, faculty members, and visitors to explore.

Private tours of the museum can be arranged with the curator, Cynthia Magalian Tupler, B.F.A. Contact Helen Caidin in the Pharmacy Department to schedule an appointment, (954) 262-1380.

Adjacent to the administration building is the Assembly Building, which consists of a 500-seat auditorium, a 250-seat auditorium, and eight 126-seat amphitheater-classrooms, all equipped with computerized audio/video systems.

Connected to this is the three-story Library/Laboratory Building. On the first floor is the library and a

100-seat cardiac laboratory utilizing "Harvey," a computerized mannequin that duplicates the sounds and symptoms of most heart conditions.

Also on the first floor are patient simulation training rooms and a 50-station computer laboratory for student use. The second and third floors house laboratories, a student lounge, and a research area. Laboratories are equipped for viewing pretaped medical procedures, and each large laboratory has a video system and hookups to equipment such as an electron microscope, so that illustrations can be amplified for laboratory-wide viewing.

Just north of the Library/Laboratory Building is the Health Care Center, with facilities for primary health care, rehabilitative services, eye care, pharmacy, and a simulation nursing laboratory.

The College of Dental Medicine's 70,500-square-foot building advances the state-of-the-art in dental education facilities. The first floor contains a 100-operator predoctoral clinic facility and clinics and support laboratories for oral medicine, radiology, and oral surgery. The second floor houses a faculty practice and clinics for post-graduate programs in endodontics, orthodontics, pediatric dentistry, periodontology, and prosthodontics, a 120-position simulation technique laboratory and support laboratories. Faculty and administration offices and an auditorium are on the third floor.

The Health Professions Division added a building to foster opportunities for interdisciplinary education and to meet the need for additional



classroom, computer, and research facilities. This modern, spacious facility known as the Assembly II Building contains more than 31,000 square feet of instructional and research facilities, including a 312-seat auditorium, ultrasound training center, a 50-station computer science laboratory, and 37 seminar and study rooms.

### **Foreign Coursework**

Undergraduate coursework taken at a foreign institution must be evaluated for U.S. institution equivalence by one of the three services listed below. You should contact one of the following:

- World Education Services  
P.O. Box 5087  
Bowling Green Station  
New York, NY 10113-0745  
(212) 966-6311  
[www.wes.org](http://www.wes.org)
- Josef Silny & Associates  
7101 SW 102nd Avenue  
Miami, Florida 33173  
(305) 273-1616  
(305) 273-1338 fax  
[www.jsilny.com](http://www.jsilny.com)
- Educational Credential  
Evaluators, Inc.  
P.O. Box 514070  
Milwaukee, Wisconsin 53203-3470  
(414) 289-3400  
[www.ece.org](http://www.ece.org)

It is the applicant's responsibility to have this coursework evaluated, and a complete course-by-course evaluation must be sent to the Office of Admissions.

### **Admissions Policy**

Students provisionally are admitted to a degree-seeking program based on a review of unofficial transcripts or other specific program admission requirements. However, this admission includes a condition that final and official transcripts, documents, and requirements must be received within 90 calendar days from matriculation. If these final and official transcripts, documents, and/or requirements are not received by that time, the student will not be allowed to continue class attendance. Financial aid will not be disbursed to a provisional/conditional student until he or she has been fully admitted as a regular student (all admissions requirements have been approved by the college/program admissions office). Students who have an unpaid balance 30 days from the start of the term will be assessed a \$100 fee.

### **Background Checks**

Accepted applicants and students are required to authorize the NSU Health Professions Division to obtain background check(s) as per the policy adopted on April 22, 2005. Students also may be required by the Health Professions Division to obtain a background check or authorize, where appropriate, clinical training facilities to conduct the check and to permit the results of the consumer reporting agency be provided to HPD and/or the clinical training facilities. If the background check(s) reveal information of concern, which the NSU Health Professions Division may deem unfavorable, HPD will request

that the individual provide a detailed written explanation of the information contained in this report, along with appropriate documentation (e.g., police reports). This information must be responded to in the same format it is requested (electronic or written) to the NSU Health Professions Division Background Check Committee within 10 business days of the date the communication is sent or another date specified by HPD in its communication with the student.

Offers of admission will not be considered final until the completion of the background check(s), with results deemed favorable by the NSU Health Professions Division, and where appropriate, by the clinical training facilities. If information received indicates that the student has provided false or misleading statements, has omitted required information, or in any way is unable to meet the requirements for completion of the program, then the admission may be denied or rescinded, the student may be disciplined or dismissed, or his or her enrollment may be terminated.

Following the initial background check(s), students will be asked annually to provide a certification relating to any convictions or guilty or no-contest pleas to any criminal offense other than traffic violations.

### **Voluntary Withdrawal Tuition Refund Policy**

Students who wish to withdraw must submit a written request for voluntary withdrawal to the dean, who will evaluate the student's request. After

completing the required withdrawal form(s) and obtaining the dean's approval, an eligible student may receive partial refund of the tuition, according to the following formula:

- First three class days.....70 percent
- Fourth or fifth class day.....60 percent
- Sixth or seventh class day .....40 percent
- Eighth, ninth, or tenth class day .....20 percent
- After the tenth class day .....0 percent
- **No refunds will be made thereafter. (Students with questions should consult the program office.)**

Students may not be given refunds for portions of tuition paid by financial aid funds. As appropriate, the respective financial aid programs will be credited in accordance with federal regulations. Students should notify the Office of Student Financial Assistance prior to withdrawing to determine the effect this will have on financial aid. For complete withdrawals, please refer to the Return of Title IV Funds section of the student handbook.

Failure to comply with these requirements could jeopardize future receipt of the Title IV student assistance funds at any institution of higher education the student may attend.

The regulation requires that if the student has received a financial aid overage to assist with related, but indirect educational costs, e.g., living expenses, books, supplies, transportation and/or personal expenses, this

must be prorated for the period the student attended the institution. The student must then refund the difference (between the actual overage and prorated amount) to the institution for restoration to the appropriate Title IV account.

Failure to comply with these requirements could jeopardize future receipt of Title IV student assistance funds at any institution of higher education the student may attend.

A refund due the student will be mailed to the student's permanent home address or deposited directly into his or her checking account as soon as the dean of the respective college has approved the withdrawal. The tuition refund policy is subject to change at the discretion of the university's board of trustees.

### **Florida Residency**

Eligible students must request in-state tuition on application. For tuition purposes, students' Florida residency status (in-state or out-of-state) will be determined at initial matriculation and will remain the same throughout the entire enrollment of the student at NSU. Accordingly, tuition will not be adjusted as a result of any change in residency status after initial enrollment registration.

### **Financial Aid**

The Office of Student Financial Assistance assists qualified students in obtaining the funds necessary to pursue their educational objectives. In order to be eligible for student financial aid, students must complete the

U.S. Department of Education's Free Application for Federal Student Aid (FAFSA) and meet federal general eligibility criteria. A need analysis is performed, utilizing information from the FAFSA to determine the student's Expected Family Contribution (EFC), or the amount the student and the student's family can contribute toward the student's educational expenses. Financial need is defined as the difference between the institution's Cost of Attendance (COA) and the EFC. The university's cost of attendance includes tuition and fees, books and supplies, room and board, transportation, and personal expenses.

The fastest way to apply for the FAFSA is online through FAFSA on the Web at [www.fafsa.edu.gov](http://www.fafsa.edu.gov). By applying electronically, financial aid information is forwarded to the Office of Student Financial Assistance within 72 hours, expediting the awarding process and reducing errors due to built-in edits. Students should request a Department of Education Personal Identification Number (PIN) online through [www.pin.ed.gov](http://www.pin.ed.gov). By using the PIN, students will be able to esign their FAFSA, which eliminates the need to send a signature page.

Undergraduate students may be eligible for grants, student employment, loans, and scholarships. Graduate/professional students may be eligible for loans in the form of Federal Subsidized and Federal Unsubsidized Stafford Loans, Federal Graduate Plus Loans, and private/alternative loans, as well as student employment (FWS) and scholarships. In order to successfully complete the financial aid process, students should

apply early, provide all necessary documents and requests to the Office of Student Financial Assistance in a timely manner, register for at least the minimum number of credits required per term (half time in a degree-seeking program), and meet required deadlines.

For more information regarding the financial aid process, contacts, and other pertinent information, students may visit the NSU Financial Aid Web site at [www.nova.edu/cwis/finaid](http://www.nova.edu/cwis/finaid). Students will be notified of missing information, their financial status, award notifications, and other financial aid related information via their NSU email addresses.

Office of Student Financial Assistance  
hours of operation:

#### **Horvitz Administration Building**

Monday–Thursday, 8:30 a.m.–7:00 p.m.  
Friday, 8:30 a.m.–6:00 p.m.  
Saturday, 9:00 a.m.–noon  
(No Sunday hours)

#### **Terry Administration Building**

Monday–Thursday, 8:30 a.m.–6:00 p.m.  
Friday, 8:30 a.m.–5:00 p.m.  
(No Saturday or Sunday hours)

#### **Orlando Student Educational Center**

Monday–Friday, 9:00 a.m.–5:30 p.m.  
(No Saturday or Sunday hours)

#### **Palm Beach Student Educational Center**

Monday–Friday, 9:00 a.m.–5:30 p.m.  
(No Saturday or Sunday hours)

For further assistance, please call  
(954) 262-3380 or 800-806-3680.

## **Certificate of Physical Examination**

Students must have a certificate of physical examination completed by their physician. Forms will be distributed by the HPD Office of Admissions and Student Services to each matriculant as part of the admissions package, or can be downloaded from [www.nova.edu/smc/](http://www.nova.edu/smc/).

Students may request that the University Health Service perform these examinations after matriculation. The University Health Service will make appointments in as timely a manner as possible, and the appointments, once made, become an obligation of the student, and must be kept.

These certificates (whether done privately or by the university) will be placed in an appropriate facility.

## **Immunization Requirements**

Students must have completed the mandatory immunization form, which can be found at [www.nova.edu/smc/](http://www.nova.edu/smc/).

The following immunization procedures are required of students at the Health Professions Division.

### **Immunizations**

Every student is required to have had an immunization for the following diseases before matriculating at Nova Southeastern University: diphtheria-pertussis-tetanus, varicella (chicken pox), and measles-mumps-rubella. A written memorandum of the immunization given and the date, signed by a physician, must be filed with the Office of Admissions on the day of registration at the latest. These

basic immunizations are the financial responsibility of the student. The university also has the right to require additional immunizations.

### **Current Additional Required Immunizations**

#### **•Hepatitis B Vaccine**

Since every student at the Health Professions Division potentially can be exposed to this deadly virus, and since many rotation sites require it of personnel, we will administer and require hepatitis B vaccinations for every entering student during the first year with a follow-up blood test showing the presence of the hepatitis B antibody. The cost of this vaccination will be supported through the student activities fee.

#### **•Tuberculosis**

Because of the resurgence of tuberculosis and the possible exposure of students to TB, the Health Professions Division will require and provide a yearly tuberculosis test for every student. The student activities fee supports this, as well.

### **Arrangements**

The University Health Service will schedule appointments for students for tuberculosis testing and for hepatitis B vaccination. Because both of these require preparation, any student who does not keep a scheduled vaccination appointment will be required to pay for the immunization personally.

The university is not required to provide alternate sites for clinical practicum or rotations should immunization be a requirement for placement.

Therefore, the student may be delayed in meeting the graduation requirements of his or her program.

### **Student Housing**

NSU offers a residential living program that is designed to meet a wide array of student needs. Students who live on campus have numerous opportunities to participate in a variety of programs and activities that maximize intellectual growth and personal development. The types of facilities and amenities offered are listed below.

#### **Leo Goodwin Sr. Residence Hall**

The Leo Goodwin Sr. Residence Hall was opened in the 1992–1993 academic year. This residence hall facility houses 325 students during the academic year. Leo Goodwin Sr. Residence Hall is the primary undergraduate facility for students with 0–30 credits.

Each room is built for single-, double-, or triple-occupancy and features a private bathroom, large closet space, and high ceilings. Each room is furnished with beds, desks, desk chairs, dressers, and a built-in storage/counter facility. The building houses a classroom, a computer lab, study lounges on each floor, laundry facilities, a kitchen, and a large TV lounge.

All students living in the Leo Goodwin Sr. Residence Hall, regardless of credit hours, must purchase a mandatory declining balance plan. The minimum amount a resident can apply to their NSU I.D. card for the declining balance plan is \$1,300 per semester. Residents who choose to apply additional funds to their cards are able to

do so at any time by going to the NSU Campus Card Office in the University Center. If a balance exists on a resident's declining balance plan at the end of the fall semester, the resident's funds will roll over to the winter semester. Once the winter semester has ended, the remaining balance will no longer be available to the resident.

### **The Commons**

The Commons opened in August 2007 and houses undergraduate and graduate students. The state-of-the-art living and learning community includes 525 beds, classroom and meeting space, 16 community living rooms, 16 study rooms, and plenty of indoor and outdoor common space. The 16 community living rooms have comfortable furnishings that create unique spaces for students and groups to conduct study sessions or group meetings or to congregate with friends. The Office of Residential Life and Housing is located in The Commons.

All undergraduate students living in The Commons, regardless of credit hours, must purchase a mandatory declining balance plan. The minimum amount a resident can apply to their NSU I.D. card for the declining balance plan is \$1,300 per semester. Residents who choose to apply additional funds to their cards are able to do so at any time by going to the NSU Campus Card Office in the University Center. If a balance exists on a resident's declining balance plan at the end of the fall semester, the resident's funds will roll over to the winter semester. Once the winter semester has ended, the remaining balance will no longer be available to the resident.

### **Founders, Farquhar, and Vettel Residence Halls**

These residence hall facilities will house approximately 50 upper-division, undergraduate residents each during the academic year. The oldest of NSU's residence halls, each building has recently undergone major renovations that included new doors, tile, paint, kitchens, and appliances. Each apartment is furnished and features single, double, and triple options; a kitchen with a full refrigerator and stove; a private bathroom; and a living room.

### **Cultural Living Center**

The Cultural Living Center (CLC) was built in 1984 and houses approximately 135 graduate students during the academic year. Its unique balcony structure makes it a popular choice for returning graduate students. Each apartment is furnished and features one or two bedrooms, a kitchen with a full refrigerator and stove, a private bathroom, and a living room.

### **Rolling Hills Graduate Residence Hall**

The Rolling Hills Graduate Residence Hall, opened on August 1, 2008, is approximately one mile west of the NSU main campus and houses approximately 373 graduate and doctoral students. The Rolling Hills Graduate Hall complex is made up of a seven-story building and a three-story building. The buildings feature single studios and quad apartments that are furnished and feature a kitchen, bathroom, and living room.

The Rolling Hills Graduate Hall complex is made up of 10 separate communities, 3 of which are based upon themes. Two of these themes are

- HPD Communities (seven-story and three-story building)
- Law Community (seven-story building)

For more information, please contact the Office of Residential Life and Housing at (954) 262-7052 or visit their Web site at [www.nova.edu/reslife/](http://www.nova.edu/reslife/).

### Dress Code

Students in the Health Professions Division must maintain a neat and clean appearance befitting students attending professional school. Therefore, attire should convey a professional appearance whenever the student is on the division campus and in classes or laboratory or on an experiential rotation or program. The following constitute acceptable attire:

1. Students must wear their white consultation jackets with their names and appropriate college designation embroidered over or on the left breast pocket. A white jacket is to be worn daily over the prescribed attire.
2. Shirt, tie, slacks, socks, and regular shoes for men, and for women it should be professional business dress, which includes slacks, pants, or skirt with blouse, or dress and appropriate shoes.
3. Matching scrub sets, socks, and shoes.
4. In addition to the above attire, **students must wear their white clinical jackets.**

5. **Identification badges** will be issued at the Health Professions Division Badge Room, in the Don Taft University Center, or from the Office of Student Affairs for distance programs students, and **must be worn at all times when the student is on campus or clinical rotation.** Please note that ID badges are necessary for proper use of on-campus auditoriums, library and recreational facilities, offices, laboratories, and certain restricted parking areas.

Students **may not** wear the following:

- shorts
- cut-offs
- mini-skirts (higher than mid-thigh)
- jeans
- see-through clothing or halter-tops
- open-toed shoes, including beach/flip-flops, sandals, thong footwear, or plastic clogs with holes on the sides or top (Croc type)
- t-shirts (as the outer shirt)
- jogging or exercise clothing
- hats or caps, unless of a religious nature

All individuals who work or study in the clinic environment must be proactive in reducing the potential for workplace foot injuries. No open-toed shoes are to be worn in the clinics. These guidelines apply on campus from 8:00 a.m.–5:00 p.m., Monday through Friday, and while on duty on rotations.

Students inappropriately dressed or groomed may be requested to leave the campus. In this circumstance, an unexcused absence will be recorded

until the student returns properly attired. Questionable or disputed cases of dress or grooming shall be presented to the dean, whose decision shall be final. Repeated violations will be considered improper professional behavior and may result in disciplinary action. When a class requires special dress (such as the wearing of scrub suits in anatomy laboratory), it will be the only exception to the dress code allowed during that time.

The dress code is to be observed at all times including midterms and examination periods.

**Students are expected to consult their respective program handbooks for compliance with any program-specific supplemental dress code policy.**

### **Identification Requirements and Fieldwork Prerequisites**

An affiliated clinical/fieldwork teaching facility may also require a student to pass a state of Florida Department of Health screening before rotation. Other requirements that may be held by the affiliated facility include, but are not limited to, fingerprinting, a criminal background check, urinalysis for drugs and alcohol, and proof of immunization. If a student does not meet all requirements held by the affiliated facility before the first day of the scheduled placement, the student's placement will be canceled. If the placement has already begun, the student will be asked to leave.

### **Student Insurance Requirement**

It is required that each Health Professions Division student (except those in online education programs and R.N. to B.S.N. or R.N. to M.S.N. nursing programs) carry adequate personal medical and hospitalization insurance. It is strongly suggested that students and their families avail themselves of the insurance plan obtainable through the university. Information about the policy can be obtained through the HPD Admissions and Student Services Office, or by accessing the Web site at [www.nova.edu/smc](http://www.nova.edu/smc) and clicking on the link for Student Health Insurance. Please note that students will see a charge for health insurance appear on their student account as part of the academic registration process.

For those students who already have health insurance coverage and do not need the NSU-endorsed insurance plan, this charge will be removed from their account once proof of coverage has been submitted by completing the online waiver. To complete the waiver form, go to [www.nova.edu/insurancewaiver](http://www.nova.edu/insurancewaiver). The online waiver is the only process by which insurance charges will be removed and coverage will be cancelled. Students who fail to complete the waiver form and provide proof of health insurance by the stated deadline will not be eligible to have charges removed and will continue to be enrolled in the insurance plan endorsed by NSU. Waivers must be completed each academic year.



## **Veterans' Benefits**

Department of Veterans Affairs educational benefits are designed to provide eligible individuals with an opportunity for educational and career growth. Eligible veterans and their dependents should contact the veterans benefit specialist by calling (954) 262-7236 or toll free at 800-541-6682, ext. 27236, Monday through Friday, between 8:30 a.m. and 5:00 p.m., or by visiting the veterans benefits Web page at [www.nova.edu/financialaid/veterans/index.html](http://www.nova.edu/financialaid/veterans/index.html). If you have any questions concerning eligibility, you may also contact the U. S. Department of Veterans Affairs (DVA) at 888-442-4551 or visit their Web site at [www.gibill.va.gov](http://www.gibill.va.gov).

### **Standards of Progress**

A student receiving veterans' benefits must maintain satisfactory progress. Students will be considered to be making satisfactory progress as long as they meet the academic standards set by their school for retention in their degree programs.

A student who, at the end of any evaluation period, has not attained and maintained satisfactory progress will be certified, in a probationary status, for only one additional evaluation period. Should this student not attain and maintain satisfactory progress by the end of the probationary period (one evaluation period), the student's Department of Veterans Affairs (VA) educational benefits will be terminated for unsatisfactory progress.

A student whose VA educational benefits have been terminated for unsatisfactory progress may petition the school to be recertified after one evalua-

tion period has elapsed. The school may recertify the student for VA educational benefits only if there is a reasonable likelihood that the student will be able to attain and maintain satisfactory progress for the remainder of the program. To initiate the petition, students should contact the Office of Student Financial Assistance, VA Benefits representative, at 800-986-3380.

For VA payment of benefits purposes, an *I* (Incomplete) designation for a course must be converted to a credit grade counting toward graduation, or a failing grade, by the end of one calendar year unless permission for a delay is granted by the academic dean for that program. An *NG* (no grade) designation for a course must be converted to a credit grade counting toward graduation, or a failing grade, by the end of one regular semester unless permission for a delay is granted by the academic dean for that program.

### **Grade/Progress Reports**

Each student who has VA benefits will be provided a grade/progress report at the end of every evaluation period (e.g., term, semester). A copy of each report will be placed in the student's permanent file maintained by the school. The university periodically furnishes each student with a working transcript that shows current status of grades and earned semester hours for all courses completed and/or attempted, plus grades for all courses in which the student is currently enrolled.

### **Credit for Prior Training (CPT)**

Nova Southeastern University complies with federal regulations for veterans' training in that it is mandatory for all

veterans' benefit recipients to report either prior education and/or training. A student receiving veterans' benefits who has previous postsecondary educational training/experience must request official transcript(s) to be sent to the school. If the transcript has not been received prior to the end of the student's second term at Nova Southeastern University, the student can not be certified for veterans' benefits for the upcoming term. The student can be certified for veterans' benefits only after the transcript has been received.

The school will evaluate the student's previous training and/or experience and grant credit as appropriate. Should credit(s) be accepted and/or granted, the tuition and training time will be reduced proportionately, with the student eligible for veterans' benefits and VA so notified.

### **Student Conduct**

All students are expected to comply with the legal and ethical standards of this institution.

Academic dishonesty and/or non-academic misconduct will result in disciplinary action. Specific instances of misconduct include, but are not limited to, cheating, plagiarism, knowingly furnishing false information to the institution, and forging or altering institutional documents and/or academic credentials.

The institution reserves the right to require a student to withdraw at any time for misconduct as described above. It also reserves the right to impose probation or suspension on a

student whose conduct is determined to be unsatisfactory.

Students who feel their rights have been denied are entitled to due process.

**Students are expected to consult their respective program handbooks for compliance with any program-specific supplemental student conduct policy.**

### **Service Units Learning Resources**

The HPD Library is located on the first floor at the north end of the Terry Building Complex in the Library/Lab Building. The print collection consists of more than 23,300 volumes, with 383 active journal subscriptions and more than 1,396 CD-ROMs, videocassettes, DVDs, and audiotapes. In addition, the Electronic Library is accessible 24/7 from any computer with an Internet connection. It provides access to 50 medical/health databases, including Medline, CINAHL, UptoDate, MD Consult, Micromedex, and Clinical Pharmacology, as well as interactive databases such as Procedures Consult, Mosby's Nursing Skills, and Doc.com. More than 300 medical textbooks are available full-text online, along with more than 7,053 medical, full-text electronic journals. Interlibrary loan and document delivery services provide access to journal articles and books not available locally. Professional reference assistance is available during most operating hours. Students have access and borrowing privileges to print collections at any NSU library and may access more than 300 electronic databases via

the HPD library home page ([www.nova.edu/hpdlibrary](http://www.nova.edu/hpdlibrary)).

In addition, there are 48 individual/small group study rooms in the library and Assembly II Building. Rooms can be checked out for up to three hours. All rooms are equipped with white boards and the library study rooms have video players. A small teaching lab is available for group instruction and two 50-station computer labs are open when the library is open. Both buildings have full wireless connectivity. Laptop computers and DVD players are available for checkout.

Hours of operation for the library, study center, and adjoining computer labs are:

Monday–Thursday, 7:30 a.m. to midnight

Friday, 7:30 a.m. to 9:00 p.m.

Saturday–Sunday, 10:00 a.m. to midnight

During exam periods, the library is open until 1:00 a.m. each night.

For further assistance, please call (954) 262-3106.

Students also have checkout privileges at other NSU libraries, including the Shepard Broad Law Center Library; the Oceanographic Center Library; and the Alvin Sherman Library, Research, and Information Technology Center (a joint-use facility with the Broward County Board of County Commissioners).

## Health Care Centers

The Health Professions Division Health Care Centers serve an important function and are an integral part of the training programs. They provide a vital community function by bringing health care service to areas whose medical needs traditionally have gone unmet.

### • Student Medical Center

The mission of the student medical center is to provide quality primary health care services to our collegiate population. The Student Medical Center is located on the first floor of the Sanford L. Ziff Health Care Center. It is staffed by board certified physicians and physician assistants who provide primary care services including physical exams, women's health care, immunizations, preventive care, general medical care, and minor surgical procedures.

### • Henderson Student Counseling Services for NSU Students

Henderson Student Counseling Services is committed to helping NSU students effectively manage the personal and social challenges of learning and changing in a university environment. All services are provided on the main campus at University Park Plaza, 3538 South University Drive. Services that are provided include individual counseling, couples counseling, group counseling, and psychiatric services.

- **NSU Health Care Center at North Miami Beach**

1750 NE 167th Street  
North Miami Beach, Florida

This facility houses a full-service primary care family medicine practice as well as a state-of-the-art dental center, a comprehensive optometric clinic and optical dispensary to serve the community.

- **Sanford L. Ziff Health Care Center**

3200 South University Drive  
Fort Lauderdale, Florida

A primary care facility that contains the following services: family medicine, pediatrics, internal medicine, nephrology and hypertension, geriatrics, obstetrics/gynecology, dermatology, sports medicine, osteopathic medicine, X-ray, occupational therapy, pharmacy, physical therapy, optometric clinic, optical dispensary, and cardiology and other specialty practices.

- **Eye Care Institute of Fort Lauderdale**

The Eye Care Institute of Fort Lauderdale, located in the North Broward Hospital District building at 1111 West Broward Boulevard, provides primary eye care and pediatric/binocular vision services to the urban community in the downtown area as well as the hospital district patients. Along with routine and emergency eye care, services for early detection and monitoring and treatment of glaucoma and other eye diseases are provided by students

supervised by experienced faculty members in this state-of-the-art facility. Specialty care, including vision training for children up to 12 years of age, is offered by the Eye Institute's pediatric section. A wide selection of frames and lenses for both children and adults are available at reasonable cost on-site.

- **Hearing and Balance Center**

3600 South University Drive  
Davie, Florida

The Hearing and Balance Center evaluates individuals of all ages using a variety of diagnostic testing procedures to determine the exact nature of the hearing and/or balance impairment. We also provide tinnitus evaluation and treatment services, as well as auditory processing evaluation and treatment. We offer an array of treatment options for hearing loss to fit a patient's lifestyle and communication needs. These include digital hearing instruments and assistive listening devices. Additionally, we offer newborn hearing screenings, hearing conservation services, and hearing protection device services.

### **Core Performance Standards for Admission and Progress**

The Nova Southeastern University Health Professions Division is pledged to the admission and matriculation of qualified students and wishes to acknowledge awareness of laws that prohibit discrimination against anyone on the basis of race, color, religion or creed, sex, pregnancy status, national or ethnic origin, nondisqualifying disability, age, ancestry, marital status, sexual

orientation, unfavorable discharge from the military, veteran status, or political beliefs or affiliations.

Regarding those students with verifiable disabilities, the university will not discriminate against such individuals who are otherwise qualified, but will expect applicants and students to meet certain minimal technical standards (core performance standards) as set forth herein with or without reasonable accommodation. In adopting these standards, the university believes it must keep in mind the ultimate safety of the patients whom its graduates will eventually serve. The standards reflect what the university believes are reasonable expectations required of health professions students and personnel in performing common functions.

The holders of health care degrees must have the knowledge and skills to function in a broad variety of clinical situations and to render a wide spectrum of patient care. In order to carry out the activities described below, candidates for Health Professions Division degrees must be able to integrate consistently, quickly, and accurately all information received, and they must have the ability to learn, integrate, analyze, and synthesize data.

Candidates for degrees offered by the Health Professions Division must have, with or without reasonable accommodation, multiple abilities and skills including intellectual, conceptual, integrative, and quantitative abilities; interpersonal communication; mobility and strength; motor skills; and hearing, visual, tactile, behavioral, and social attributes. Candidates for admission

and progression must be able to perform these abilities and skills in a reasonably independent manner.

### **Intellectual, Conceptual, Integrative, and Qualitative Abilities**

These abilities include measurement, calculation, reasoning, analysis, and synthesis. Problem solving—a critical skill—requires all of these intellectual abilities. Candidates and students must have critical thinking ability sufficient for good clinical judgment. This is necessary to identify cause-effect relationships in clinical situations and to develop plans of care. In addition, candidates and students should be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures. An individual is expected to be able to perform multiple tasks in a diverse, dynamic, highly competitive, and challenging learning environment. All individuals are expected to meet their program requirements on a satisfactory level as determined by HPD administration or the applicable college/program administration. Osteopathic medical students must be able to perform multiple tasks in a diverse, dynamic, highly competitive, and challenging environment. They must be able to think quickly and accurately in an organized manner, despite environmental distractions.

### **Interpersonal Communication**

Candidates and students should be able to interact with and observe patients in order to elicit information; perform examinations; describe changes in mood, activity, and posture; and perceive nonverbal communications. They must be able to communicate

effectively and sensitively with patients. Communication includes not only speech but also reading and writing. Candidates and students must also be able to communicate effectively and efficiently in all written forms with all members of the health care team. They must have interpersonal abilities sufficient to interact with individuals, families and groups from a variety of social, emotional, cultural, and intellectual backgrounds.

### **Motor Skills**

Candidates and students should have sufficient motor function to execute movements reasonably required to provide general care and emergency treatment to patients. Examples of emergency treatment reasonably required to some health care professionals are cardiopulmonary resuscitation (CPR), administration of intravenous medication, the application of pressure to stop bleeding, the opening of obstructed airways, and the ability to calibrate and use various pieces of equipment. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses of touch and vision. Physical therapy and occupational therapy students must be able to position patients for treatment, as well as teaching the functions involving gross and fine movements. Pharmacy candidates and students must have sufficient motor skills to weigh chemical and pharmaceutical (including intravenous) solutions, prepare prescriptions, and carry out sterile procedures.

### **Strength and Mobility**

Candidates and students must have sufficient mobility to attend to emergency codes and to perform such maneuvers as CPR when required. They must have the physical ability to move sufficiently from room to room and to maneuver in small places. Osteopathic medical students must have the ability to position patients for the administration and delivery of osteopathic manipulative treatment in a variety of settings and to position and move patients when required.

Pharmacy students must be able to move about within a pharmacy setting and a patient's room.

Physical therapy and occupational therapy students must be able to administer treatment in a variety of settings and positions and move patients when required.

### **Hearing**

Candidates and students should have sufficient auditory ability to monitor and assess health needs. They must be able to hear information given by the patient in answer to inquiries; to hear cries for help; to hear features in an examination, such as the auscultatory sounds; and to be able to monitor equipment.

### **Visual**

Candidates and students must have visual ability sufficient for observation and assessment necessary in patient care. It must be consistent in many cases with being able to assess asymmetry, range of motion, and tissue texture changes. Osteopathic medicine, optometry, and physician assistant students

must have sufficient visual ability to use ophthalmologic instruments. It is necessary to have adequate visual capabilities for proper evaluation and treatment integration. Candidates and students must be able to observe the patient and the patient's responses including body language and features of the examination and treatment. Pharmacy students must be able to interpret prescriptions and medical orders, as well as to inspect medicine for deterioration or expiration.

### **Tactile**

Candidates and students must have sufficient tactile ability for physical assessment. They must be able to perform palpation and functions of physical examination, and/or those related to therapeutic intervention. Pharmacy students must be able to measure and compound, sometimes transferring from container to container and to carry out sterile procedures. Dental students must be able to deliver appropriate treatment using high technology equipment such as dental drills and surgical instruments.

### **Sensory**

Osteopathic and physician assistant students are required to have an enhanced ability to use their sensory skills. These enhanced tactile and proprioceptive sensory skills are essential for appropriate osteopathic evaluation and treatment of patients.

### **Behavioral and Social Attributes**

Candidates and students must possess the emotional health required for full use of their intellectual abilities; the exercise of good judgment; the prompt completion of all responsibilities attendant to the diagnosis and care of patients; and the development of mature, sensitive, and effective relationship with patients. Candidates and students must be able to physically tolerate taxing workloads, to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties inherent in the clinical problems of many patients. Compassion, integrity, concern for others, interpersonal skills, interest, and motivation are all personal qualities that will be assessed during the admissions and education process.



# College of Osteopathic Medicine

PATIENTS NAME \_\_\_\_\_

AD TIME OF ADMISSION \_\_\_\_\_

42  
A+  
Wale  
01-01-00 3:15 pm





# College of Osteopathic Medicine



Anthony J. Silvagni,  
D.O., Pharm.D.,  
M.Sc., FACOFP  
Dean

## An Osteopathic Physician

Two types of complete physicians may practice medicine in all 50 states: the doctor of osteopathic medicine (D.O.) and the doctor of medicine (M.D.). While both types of physicians are trained in all aspects of patient care, D.O.s offer a distinct, holistic approach to medicine.

Osteopathic medicine is distinguished by an emphasis on primary care, by using osteopathic manipulative medicine when necessary, and by a tradition of caring for patients in underserved rural and urban areas.

Osteopathic physicians recognize the relationship between physical structure and organic function and view the human body as an interdependent unit rather than an assortment of separate parts and systems.

While all medical and surgical specialties are represented within the osteopathic medical profession, the training of vitally needed family physicians and the drive to reach rural, minority, geriatric, and indigent populations, make the osteopathic medical profession unique.

We are proud of our success in producing vitally needed primary

care physicians—nearly 70 percent of our graduates practice in the primary care disciplines of family medicine, general internal medicine, or general pediatrics—and we remain committed to training physicians capable of delivering the highest standards of total-patient care in all practice settings.

## Accreditation

Nova Southeastern University College of Osteopathic Medicine has been granted accreditation by the Commission on Osteopathic College Accreditation of the American Osteopathic Association. This body is recognized by the U.S. Department of Education and the Council of Post-Secondary Accreditation as the accrediting agency for colleges educating osteopathic physicians and surgeons.

## Administration

**Anthony J. Silvagni**, D.O., Pharm.D.,  
M.Sc., FACOFP  
Dean

**Lawrence E. Jacobson**, D.O.  
Vice Dean

**Elaine Wallace**, D.O., M.S.  
Executive Associate Dean  
for Academics

**Leonard Levy**, D.P.M., M.P.H.  
Associate Dean for Education,  
Planning, and Research

**Howard Neer**, D.O., FACOFP  
Associate Dean for Alumni Affairs

**Steven Zucker, D.M.D., M.Ed.**  
Associate Dean for  
Community Affairs

**Joseph DeGaetano, D.O., FAAFP**  
Associate Dean of Clinical  
Curriculum and Graduate Medical  
Education (GME)

**Martha Echols, Ph.D.**  
Assistant Dean for  
Medical Education

**Albert W. Whitehead, D.M.D.,  
M.Ed., M.B.A.**  
Assistant Dean for Clinical Services  
and Admissions

**Margaret Wilkinson, Ph.D.**  
Assistant Dean for  
Preclinical Education

**Lynne Cawley, M.Ed.**  
Director, Student and  
Alumni Services

**Cyril Blavo, D.O., M.S.,  
M.P.H. and T.M., FACOP**  
Director, Public Health Program

**Jennie Q. Lou, M.D., M.Sc.**  
Director, Medical Informatics

## **Admission to the College of Osteopathic Medicine**

### **Requirements for Admission**

Applicants for the first-year class must meet the following requirements prior to matriculation:

1. have a bachelor's degree from a regionally accredited college or university (A minimum of 90 semester hours of coursework work from a regionally accredited college or university may be considered for admission.)

2. have successfully completed the following with a grade of 2.0 or higher

- 8 semester hours of each of the following courses:
  - a. biological science with laboratory (e.g., biology, embryology, genetics, microbiology, physiology, etc.)
  - b. general chemistry with laboratory
  - c. organic chemistry with laboratory or biochemistry
  - d. physics (with laboratory)
- 6 semester hours of English

Note: These are minimum academic requirements for admission. Students are encouraged to take additional upper-level science, behavioral sciences, and humanities courses. It is recommended that applicants complete at least one course in biochemistry and one course in physiology.

3. A minimum cumulative and science GPA of 3.0 is required. However, the dean is empowered to evaluate the total qualifications of every student and to modify requirements in unusual circumstances.

4. All applicants are required to take the Medical College Admission Test (MCAT). Applications for the MCAT may be obtained online at [www.aamc.org](http://www.aamc.org), from your college's preprofessional adviser's office, by calling (319) 337-1357, or by writing directly to

Medical College Admission Test  
Program Office  
2255 North Dubuque Road  
P.O. Box 4056  
Iowa City, IA 52243-4056

MCAT scores must be no more than three years old prior to the application cycle.

The discipline and intensive study required by the osteopathic medicine curriculum make the attainment of a superior GPA in undergraduate studies essential.

The college receives more than 3,500 applications a year, from which only 230 students are chosen. These students have varied backgrounds, and while some many enter the college directly from an undergraduate program, other students come from successful careers.

The Committee on Admissions recommends applicants to the dean on the basis of demonstrated academic excellence, leadership, compassion, and commitment to the osteopathic medical profession.

### **Application Procedure**

The college participates in the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS) for the receipt and processing of all applications. AACOMAS takes no part in the selection of students.

Applicants should submit applications electronically through AACOMAS Online, an interactive, Web-based application at [www.aacom.org](http://www.aacom.org). For questions, applicants may call (301) 968-4190.

The following steps are necessary to the primary application process.

1. The applicant should submit the following materials to AACOMAS by January 15:

- completed AACOMAS application
- official transcripts from the registrars of all colleges or universities attended, mailed directly to AACOMAS by the college or university
- MCAT scores (must be no more than three years old prior to the application cycle)

2. The applicant must submit the following to the college by March 1 :

- a secondary application, which will be sent to the applicant by the college on receipt of the AACOMAS application
- a nonrefundable application fee of \$50
- a letter of evaluation from the preprofessional committee, or, if such a committee does not exist, then three letters of evaluation: two from science professors, and one from a non-science professor
- a letter of evaluation from a physician

A personal interview is a part of the admission process; however, being interviewed is not a guarantee of admission. Not all applicants will be granted an interview. Those selected for an interview will be notified of the date and time of such interview by the Office of Admissions.

Notice of acceptance will be on a rolling or periodic schedule; therefore, early completion of the application is in the best interest of the applicant because of the limited number of spaces available in each class.

After acceptance, final and official documents and requirements must be received by the Office of Admissions within 90 days following

the start of the first term. If these final and official documents are not received, or other requirements are not met by that time, the student will not be able to continue his or her enrollment. Financial aid will not be disbursed to anyone until he or she has been fully admitted as a regular student (all admissions requirements have been approved by the program office).

### **Tuition and Fees**

1. The tuition for 2010–2011 (subject to change by the board of trustees without notice): \$34,480 for Florida residents and \$40,375 for out-of-state students. Eligible students must request in-state tuition on their application. For tuition purposes, a student's Florida residency status (in-state or out-of-state) will be determined at matriculation and will remain the same throughout the entire enrollment of the student at NSU.

Accordingly, tuition will not be adjusted as a result of any change in residency status after initial enrollment registration.

2. For first-year students, a microscope/laboratory fee of \$100 is required. In addition, a Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually. Additional program fees may apply.

3. Acceptance fee is \$1,250. This fee is required to reserve the accepted applicant's place in the entering first-year class. This advance payment will be deducted from the tuition payment, but is not refundable in case of a withdrawal.

4. Deposit is \$750. This advance payment is due March 15. It will be deducted from the tuition payment, but is not refundable in the event of a withdrawal. Applicants accepted after this date will have a due date following the date of acceptance.

Applicants accepted prior to November 15 will have until December 14 to pay the acceptance fee. Applicants accepted between November 15 and January 14 will have 30 days, and those accepted between January 15 and May 14 will have 14 days to pay their acceptance fee. Anyone accepted on May 15 or later will be asked to immediately pay the combined acceptance fee and deposit of \$2,000. Those accepted between March 16 and May 14 will be required to submit their combined acceptance and deposit fees within 14 days.

The first semester's tuition and fees, less the \$2,000 previously paid, are due upon receipt of the NSU invoice. Students will be billed tuition for each subsequent semester. Students will not be admitted until their financial obligations have been met.

The financial ability of applicants to complete their training at the college is important because of the limited number of positions available in each class.

Applicants should have specific plans for financing four years of medical education, including tuition, living expenses, books, equipment, clinical rotation travel, and miscellaneous expenses.

## Schedule of Application for Admission Cycle

**June**—Application cycle for the next academic year begins. Inquiries are invited by Nova Southeastern University College of Osteopathic Medicine, and AACOMAS forms are made available.

**July**—Credentials sent to AACOMAS are processed, and applicant records are forwarded to Nova Southeastern University College of Osteopathic Medicine. A supplemental application is then sent to the applicant. When the supplemental application is completed and returned and when recommendations are received, the completed application is evaluated for interview.

**August**—Personal interviews start.

**January 15**—Deadline for AACOMAS applications.

**March 1**—Deadline for NSU-COM supplemental applications.

## Computer Requirements

Students are required to own a laptop computer. As part of the curriculum, students will develop medical research skills, hone and refine information management skills, and be exposed to medical informatics. Students have access to a variety of computer educational resources and course material, including

- WebCT Courses
- Computer-Assisted Instruction (case studies)
- Medical Spanish
- Course Evaluations
- EMS Accessibility

- Electronic Library
- Up-To-Date
- Kaplan Board Review
- Clinical Procedures Modules
- Integration Week Activities

A campus-wide wireless network exists to provide students with electronic access anywhere on campus.

## Academics

### Transfer of Credit

Circumstances may warrant that a student enrolled in one osteopathic college seeks to transfer to another institution. Credits may be transferred from medical schools and colleges accredited by the Commission on Osteopathic College Accreditation (COCA) of the American Osteopathic Association or by the Liaison Committee on Medical Education (LCME).

- Transfers from a medical school accredited by the COCA or the LCME shall require that, at minimum, the last two years of instruction be completed within the NSU College of Osteopathic Medicine.
- Transfer credits will only be given if the student is in good academic standing at, and eligible for readmission to, the previously attended COCA- or LCME-accredited medical school.
- Credit is only given for completed courses with grades of 70 percent (2.0) or greater that fulfill the COM's graduation requirements.

Anyone wishing to transfer to Nova Southeastern University College of Osteopathic Medicine must meet the following criteria:

1. make a formal application to Nova Southeastern University College of Osteopathic Medicine Office of Admissions
2. satisfy all admission requirements to Nova Southeastern University College of Osteopathic Medicine, which include submitting official transcripts of all college work (including osteopathic transcripts); MCAT scores; National Board scores, if taken; and letters of evaluation
3. be in good standing at the transferring institution, as documented by a letter from the dean of the transferring institution
4. supply a letter of recommendation from a faculty member of the transferring osteopathic institution
5. supply a written statement outlining reasons for request for transfer

Decisions on transfer are made by the dean. No applicant will be accepted without an interview. The decision will be based on factors which include, but are not limited to, academic record, interview, circumstances leading to the transfer request, available space, and admission standards.

### **Advanced Placement**

Request for advanced placement for any course at Nova Southeastern University College of Osteopathic Medicine must be declared and all supporting documentation must be submitted by the student no later

than 45 days prior to the first day of class. The student must present all supporting documents to the College of Osteopathic Medicine Office of Student Affairs.

The student will be required to attend all classes and take all examinations until the disposition of the advanced placement request is finalized.

A student must have significant training or history of accomplishments in a basic science area that warrants consideration for advanced placement examinations. Students must pass a comprehensive examination given for the purpose of determining the student's competency in the subject involved. The passing requirement will be determined by the College of Osteopathic Medicine.

The decision regarding the request for advanced standing will be transmitted in writing to the student by the dean. The Office of the Registrar will be appropriately notified. Courses for which advanced standing is granted will be designated as advanced placement on the student's transcript and will not show a grade or contribute to the student's grade point average.

### **Course of Study**

The College of Osteopathic Medicine has a dedicated faculty; well established affiliations with medical centers, hospitals, and health care systems; a nationally recognized rural medicine program; and a mission to educate the finest osteopathic physicians possible. We place

our students and residents at the nation's fourth largest public hospital system—the North Broward Hospital District—or at one of our regional academic centers throughout the state to improve continuity and coordination of clinical education within our vast and growing clinical training network.

Our innovative curriculum is designed to fulfill our mission of training primary-care physicians. The design of the curriculum is based on successful academic models—carefully developed and integrated. It emphasizes interdisciplinary collaboration, guiding students to develop a holistic, and more importantly, an osteopathic approach to medicine. We continually correlate basic scientific information with fundamental clinical application. Students are exposed to clinical settings in their first semester, which gives them the opportunity to prepare for the “real world” of medicine.

This clinical exposure continues into the second year when students have increased opportunity to interact with standardized patients on campus as well as be involved, under physician supervision, with real patients in the office and hospital setting.

A notable aspect of the clinical program is a required three-month rotation in a rural practice setting. In rural clinics throughout the state of Florida, our students provide health care to medically underserved and indigent patients. Our students learn

to treat various patients whose lifestyles, practices, and attitudes toward health care differ from those seen in more traditional training sites. This enriching educational experience is one that cannot be taught in the classroom.

Physicians do not work in a vacuum, but rather in a health care team, and NSU promotes interdisciplinary cooperation whenever possible. Students share faculty members and campus facilities with NSU's pharmacy, dental, optometry, physician assistant, physical therapy, occupational therapy, public health, nursing, and medical science students.



# Curriculum Outline

## M1

Credit hours

### Fall Term

COM 5021 Medical Biochemistry .....	5.5
COM 5010 Gross Anatomy .....	6.0
COM 5020 Medical Histology .....	3.0
COM 5061 Medical Physiology I.....	3.0
COM 5001 Patient-Centered Medicine I .....	3.0
COM 5121 OPP I.....	2.0
COM 5100 Medicine, Health, and Society (MHS) .....	3.0
SPAN 5000 Conversational Spanish for Health Care Professionals.....	1.0
COM 5004 Behavioral Medicine.....	1.0
COM 5800 Foundations and Applications of Clinical Reasoning I .....	2.0
COM 5080 Basic Life Support.....	1.0

**TOTAL: 30.5**

### Winter Term

SPAN 5001 Medical Spanish for Health Care Professionals.....	1.0
COM 5062 Medical Physiology II .....	4.0
COM 5030 Medical Microbiology I .....	6.0
COM 5011 Medical Neuroanatomy .....	2.0
COM 5002 Patient-Centered Medicine II.....	3.0
COM 5122 OPP II .....	2.0
COM 5101 Medicine, Health, and Society II.....	2.0
COM 5801 Foundations and Applications of Clinical Reasoning II.....	2.0

**TOTAL: 22**

### Summer Term

COM 5031 Microbiology II .....	1.5
COM 6040 Pathology.....	2.0
COM 6050 Pharmacology.....	2.0
COM 5102 Medicine, Health, and Society III .....	1.0
COM 5900 Principles of Radiology .....	1.0

**TOTAL: 7.5**

## M2

Credit hours

### Fall Term

COM 6000 Principles of Clinical Medicine.....	2.0
COM 6100 Integumentary System .....	1.5
COM 6101 Hematopoietic and Lymphoreticular System .....	1.5
COM 6102 Respiratory System.....	2.0

COM 6103 Cardiovascular System.....	3.0
COM 6104 Gastrointestinal System.....	3.0
COM 6107 Musculoskeletal System.....	2.0
COM 6173 IGC Preceptorship.....	1.0
COM 6300 Foundations and Applications of Clinical Reasoning III.....	4.0
COM 6123 OPP III.....	2.0
	<b>TOTAL: 22</b>

Winter Term

COM 6001 Principles of Clinical Medicine II.....	2.0
COM 6111 Pediatrics.....	2.0
COM 6108 Nervous System and Psychiatry.....	4.0
COM 6110 Women’s Health.....	3.5
COM 6124 OPP IV.....	2.0
COM 6002 Pre-Clerkship.....	0.5
COM 6109 Renal System.....	2.0
COM 6105 Endocrine System.....	2.0
COM 6090 Geriatrics.....	0.5
COM 6301 Foundations and Applications of Clinical Reasoning IV.....	4.0
COM 9501 Complex I Preparation.....	5.0
	<b>TOTAL: 27.5</b>

Summer Term

COM 6221 ACLS/BLS.....	1
	<b>TOTAL: 1</b>

**Predoctoral Fellows Curriculum**

Credit hours

One Year Course of Study Each	
COM 9100 Osteopathic Principles and Practice Fellowship.....	48
COM 9200 Research Fellowship.....	48
	<b>TOTAL: 48</b>

### Third Year Curriculum

Credit hours

Fall and Winter Terms—Core Clinical Rotations

COM 7093 Geriatrics.....	8.0
COM 7131 Pediatrics/Ambulatory .....	8.0
COM 7132 Pediatrics/Hospital.....	8.0
COM 7110 Obstetrics/Gynecology.....	8.0
COM 7094 Psychiatry.....	8.0
COM 7091 Family Medicine I.....	8.0
COM 7092 Family Medicine II.....	8.0
COM 7104 General Surgery I.....	8.0
COM 7105 General Surgery II .....	8.0
COM 7102 Internal Medicine I.....	8.0
COM 7103 Internal Medicine II .....	8.0
COM 7106 Internal Medicine III.....	8.0

**TOTAL: 96**

### Fourth Year Curriculum

Credit hours

Winter Term—Didactic Course

COM 8004 Senior Seminar .....	1.0
-------------------------------	-----

Fall and Winter Terms—Core Clinical Rotations

COM 7095 Emergency Medicine .....	8.0
COM 7151 Rural Medicine I.....	8.0
COM 7152 Rural Medicine II.....	8.0
COM 7153 Rural Medicine III.....	8.0

**TOTAL: 33**

Fall and Winter Terms—Clinical Elective Courses

COM 8103 Allergy and Immunology.....	8.0
• Clinical and Laboratory—Immunology	
COM 8104 Anesthesiology.....	8.0
• Critical Care Medicine	
• Pain Medicine	
• Pediatric Anesthesiology	
COM 8105 Colon and Rectal Surgery .....	8.0
COM 8108 Dermatology.....	8.0
• Dermatopathology	
COM 8009 Emergency Medicine .....	8.0
• Medical Toxicology	
• Pediatric Emergency Medicine	
• Sports Medicine	

COM 8012	Family Medicine .....	8.0
	• Sports Medicine	
COM 8015	Geriatric Medicine.....	8.0
COM 8018	Internal Medicine .....	8.0
	• Cardiovascular Disease	
	• Clinical Cardiac Electrophysiology	
	• Critical Care Medicine	
	• Endocrinology, Diabetes, and Metabolism	
	• Gastroenterology	
	• Hematology	
	• Hematology and Oncology	
	• Infectious Disease	
	• Interventional Cardiology	
	• Nephrology	
	• Oncology	
	• Pulmonary Disease	
	• Pulmonary Disease and Critical Care Medicine	
	• Rheumatology	
	• Sports Medicine	
COM 8021	Medical Genetics .....	8.0
COM 8024	Neurological Surgery .....	8.0
	• Endovascular Surgical Neuroradiology	
COM 8023	Neurology.....	8.0
	• Child Neurology	
	• Clinical Neurophysiology	
	• Neuromuscular Medicine	
	• Pain Medicine	
COM 8022	Nuclear Medicine .....	8.0
COM 8025	Obstetrics and Gynecology.....	8.0
	• Women's Health	
	• Reproductive Endocrinology	
	• Maternal/Fetal Medicine	
	• Gynecology/Oncology	
COM 8027	OPP Medicine.....	8.0
COM 8028	Ophthalmology .....	8.0
	• Retina	
	• Cornea	

COM 8029	Orthopedic Surgery.....	8.0
	• Adult Reconstructive Orthopedics	
	• Foot and Ankle Orthopedics	
	• Hand Surgery	
	• Musculoskeletal Oncology	
	• Orthopedic Sports Medicine	
	• Orthopedic Surgery of the Spine	
	• Orthopedic Trauma	
	• Pediatric Orthopedics	
COM 8011	Otolaryngology.....	8.0
	• Otolaryngology/Neurotology	
	• Pediatric Otolaryngology	
COM 8031	Pathology—Anatomic and Clinical .....	8.0
	• Blood Banking/Transfusion Medicine	
	• Chemical Pathology	
	• Cytopathology	
	• Forensic Pathology	
	• Hematology	
	• Medical Microbiology	
	• Neuropathology	
	• Pediatric Pathology	
	• Selective Pathology	
COM 8032	Pediatrics .....	8.0
	• Adolescent Medicine	
	• Neonatal/Perinatal Medicine	
	• Pediatric Cardiology	
	• Pediatric Critical Care Medicine	
	• Pediatric Emergency Medicine	
	• Pediatric Endocrinology	
	• Pediatric Gastroenterology	
	• Pediatric Hematology and Oncology	
	• Pediatric Infectious Disease	
	• Pediatric Nephrology	
	• Pediatric Ophthalmology	
	• Pediatric Pulmonology	
	• Pediatric Rheumatology	
	• Pediatric Sports Medicine	
COM 8038	Physical Medicine and Rehabilitation.....	8.0
	• Pain Medicine	
	• Spinal Cord Injury Medicine	

COM 8035	Plastic Surgery.....	8.0
	•Craniofacial Surgery	
	•Hand Surgery	
COM 8030	Preventive Medicine.....	8.0
	•Medical Toxicology	
COM 8036	Psychiatry.....	8.0
	•Addiction Psychiatry	
	•Child and Adolescent Psychiatry	
	•Forensic Psychiatry	
	•Geriatric Psychiatry	
	•Pain Medicine	
COM 8170	Public Health.....	8.0
COM 8020	Radiation Oncology.....	8.0
COM 8037	Radiology—Diagnostic.....	8.0
	•Abdominal Radiology	
	•Cardiothoracic Radiology	
	•Endovascular Surgical Neuroradiology	
	•Musculoskeletal Radiology	
	•Neuroradiology	
	•Nuclear Radiology	
	•Pediatric Radiology	
	•Vascular and Interventional Radiology	
COM 8040	Rural/International Medicine.....	8.0
COM 8014	Surgery—General.....	8.0
	•Hand Surgery	
	•Pediatric Surgery	
	•Surgical Critical Care	
	•Vascular Surgery	
	•Vascular Surgery—Integrated	
COM 8042	Thoracic Surgery.....	8.0
COM 8044	Urology.....	8.0
	•Pediatric Urology	
	<b>TOTAL:</b>	<b>240</b>

Electives may be taken in half-month or one-month increments.  
No more than four half-month electives may be taken in the fourth year.

## College of Osteopathic Medicine Course Descriptions

### **COM 5001—Patient-Centered Medicine I**

Students will learn the components of a patient history and physical examination and will develop effective interviewing techniques and skills.

3.0 Credit Hours

### **SPAN 5000—Conversational Spanish for Health Care Professionals**

This course is designed for students with little or no formal background in Spanish who are working or planning to work in health care. Focus is on basic grammar and specialized vocabulary needed to communicate effectively with Spanish-speaking patients and their families, as well as an introduction to Spanish and Latin American culture as related to health care. Class meets once per week; additional assignments and quizzes appear online. Course is open only to first-year College of Osteopathic Medicine students.

1.0 Credit Hour

### **SPAN 5001— Medical Spanish for Health Care Professionals**

This is the second course in a sequence designed for students in health care with little or no formal background in Spanish. Focus is on basic Spanish grammar, medical vocabulary, writing, and oral skills, as well as readings on Spanish and Latin American culture as related to health care. Class meets once per week; additional assignments and quizzes appear online. Course is open only to first-year College of Osteopathic

Medicine students. **Prerequisite:** SPAN 5000

1.0 Credit Hour

### **COM 5002—Patient-Centered Medicine II**

This is the second semester of a two-semester course in which the student will learn the components of a patient history and physical examination and will develop effective interviewing techniques and physical examination skills. The course will consist of assigned readings, lectures, and laboratory sessions in which diagnostic techniques will be practiced and performed by students under faculty assistance and supervision. There will also be a simulated patient experience in which each student will perform a complete history and physical examination from memory on a surrogate patient.

3.0 Credit Hours

### **COM 5004—Behavioral Medicine**

Behavioral Medicine is designed to introduce medical students to the behavioral sciences, particularly those aspects that influence, shape, and/or operate in medical practice. The course covers fundamental concepts and research findings in the biological, intrapsychic, interpersonal, and sociocultural aspects of human behavior that permeate all areas of medical practice.

1.0 Credit Hour

### **COM 5010—Gross Anatomy**

Study of the structure of the human trunk, extremities, head

and neck, including dissection by student teams.

6.0 Credit Hours

**COM 5011—  
Medical Neuroanatomy**

Study of the gross structure of the brain and spinal cord and the functional relationship among their parts. Emphasizes major motor and sensory pathways and integrative mechanisms of the central nervous system.

2.0 Credit Hours

**COM 5020—Medical Histology**

Study of cells, tissues, and organs of the body as seen through the light microscope, involving both lectures and laboratory work. Covers transmission and scanning electron micrographs.

3.0 Credit Hours

**COM 5021—  
Medical Biochemistry**

Covers biochemical reactions and pathways of normal human health; nutrition from a biochemical viewpoint; and the biochemistry of the gastrointestinal, pulmonary, renal, musculoskeletal, endocrine, and other systems.

6.0 Credit Hours

**COM 5030—  
Medical Microbiology I**

This course will be presented in lecture format to emphasize two important medical areas, immunology and microorganisms involved in infectious diseases. The immunology section covers both innate and adaptive immune responses of humans with a focus on the host's interaction with

an environment containing a variety of potential pathogens. In addition, other aspects of immunology—such as immunodeficiencies, autoimmunities, allergies, graft rejection, and immunity to tumors—are presented. Viruses, bacteria, fungi, and parasites commonly involved in human diseases, as well as new and reemerging pathogens, will be presented from a clinically relevant perspective. The sections on microorganisms will stress practical clinical skills by presenting case studies, visual illustrations of typical clinical symptoms, and the most common therapies.

7.0 Credit Hours

**COM 5031—  
Medical Microbiology II**

This course will be presented in lecture format. Parasites and fungi commonly involved in infectious human diseases, as well as newly and re-emerging pathogens, will be presented from a clinically relevant perspective. The sections will stress practical clinical skills by presenting case studies, visual illustrations of typical clinical symptoms, and the most common therapies.

1.5 Credit Hours

**COM 5061—Medical Physiology I**

Study of general physiology (cell function, membrane translocation, electrophysiology, muscle physiology), cardiovascular, renal, gastrointestinal, respiratory, endocrine, and neurophysiology.

3.0 Credit Hours



**COM 5062—****Medical Physiology II**

This is the second semester of a two-semester physiology course. As with the first semester, the material will be presented using an organ systems approach. This semester will include the study of the respiratory, renal, nervous, endocrine, reproductive, and gastrointestinal systems.

4.0 Credit Hours

**COM 5080—Basic Life Support**

An American Heart Association course that includes both didactic material (including methods of reducing cardiovascular risk) and instruction in the psychomotor skills necessary for the initial resuscitation of the cardiac arrest patient.

1.0 Credit Hour

**COM 5100, 5101, 5102—  
Medicine, Health, and Society I, II,  
and III**

This course covers three broad themes: (1) the doctor-patient relationship; (2) health promotion and disease prevention; and (3) law and health policy. The course links the humanities, social sciences, public health, and law to the practice of medicine.

7.0 Credit Hours

**COM 5121—OPP I**

Introduces general principles and techniques of diagnosis of the axial skeleton and paraspinal regions. Introduces students to basic terminology and examination skills through lecture, demonstration, and hands-on performance.

2.0 Credit Hours

**COM 5122—OPP II**

Covers principles and techniques on a regional basis. Stresses the neurophysiological aspects of muscle dysfunction and pain mechanisms. Treatment modalities include counterstrain, myofascial release, indirect technique, and muscle energy techniques.

2.0 Credit Hours

**COM 5800—Foundations and  
Applications of Clinical Reasoning I**

This course will integrate basic and clinical sciences in a case-based approach. Faculty members from multiple disciplines will guide students in developing the skills necessary to effectively assimilate knowledge from the basic sciences into the disease processes and varied patient presentations.

2.0 Credit Hour

**COM 5801—Foundations and  
Applications of Clinical Reasoning II**

This course will integrate basic and clinical sciences in a case-based approach. Faculty members from multiple disciplines will guide students in developing the skills necessary to effectively assimilate knowledge from the basic sciences into the disease processes and varied patient presentations.

2.0 Credit Hour

**COM 5900—  
Principles of Radiology**

This course provides an overview of common imaging modalities used in clinical practice. The course syllabus, as well as selected course content and radiological images, will be posted on the student WebCT throughout the duration of the course. It is the

students' responsibility to visit the WebCT prior to and after each lecture and the final exam. Students are responsible for knowing and understanding all posted content and being able to interpret all posted radiological images. Students are also expected to complete the required reading prior to each lecture.

1.0 Credit Hour

### **COM 6000, 6001—Principles of Clinical Medicine (PCM) I, II**

Principles of Clinical Medicine is a full-year course that prepares the student for clinical rotations by providing experience in evaluating standardized patients, performing common medical procedures, and documenting both.

2.0 Credit Hours

### **COM 6002— Pre-Clerkship Seminar**

A series of presentations at the end of the sophomore year to reinforce knowledge and skills useful for clinical rotations. Topics include risk management, medical record documentation, OSHA regulations, doctor/patient relationships, standard health maintenance care of adults and children, hospital protocols, literature research, and educational resources.

0.5 Credit Hours

### **COM 6040—Principles of Pathology**

The purpose of this course is to introduce the fundamental concepts of general pathology so the student may understand the basic pathological processes involved in development of diseases most likely to be encountered in hospitals and clinics. The

gap between preclinical and clinical subjects may thus be spanned with a scientific foundation of the etiology, pathogenesis, morphologic alterations, and effects of diseases. The course consists of fundamental principles of general pathology, such as cell injury, inflammation, hemodynamic derangements (including thrombosis, infarction, and shock), basic pathologic processes of infectious diseases, the role of genetics and immunity in contributing to disease, and general discussion of neoplasia.

3.0 Credit Hours

### **COM 6050—Principles of Pharmacology**

Basic pharmacological concepts and principles needed for the applied clinical science courses to follow during the semester.

2.0 Credit Hours

### **COM 6082—PALS**

PALS presents a systematic, interactive approach dealing with the survival of critically ill and injured children. This care includes a broad spectrum of services, from early identification of problems through pre-hospital, hospital, and rehabilitative care. It also presents a way for resuscitation providers to treat a desperately ill patient in a coordinated way, regardless of whether the response team consists of one person, two people, or a team. PALS-trained providers will use the same guidelines and approaches inside and outside the hospital, as well as nationally and internationally. This course will consist of 15 hours of interactive instruction supplemented by audiovisuals; demonstration of required skills on Pediatric Advance Life Support Manikins; and practice using defibril-

lators, EKG monitors, and intubation equipment.

1.0 Credit Hour

### **COM 6090—Geriatrics**

This course of instruction provides an overview of selected clinical problems or syndromes affecting older adults, with an emphasis on differential diagnosis, systematic evaluation, and management utilizing an interdisciplinary approach. Concepts of physiological changes with aging, psychosocial, and functional aspects, as well as their effects on general medical disorders, will be incorporated into the lectures.

0.5 Credit Hours

### **COM 6100— Integumentary System**

Clinical aspects of skin diseases, infections of the skin, skin pathology, pediatric dermatoses, neoplastic disorders of the skin, burn management plastic surgery, skin disorders, and cutaneous manifestations of systemic disorders and diseases of the breast.

2.0 Credit Hours

### **COM 6101—Hematology and Lymph System**

This course covers the diagnosis and management of diseases of the hematopoietic and lymphoreticular system and will consist of 30 hours of lectures. The course begins with a discussion of disorders of red cells white cells, platelets and hemostasis. Myeloproliferative, lymphoproliferative, and immunoproliferative disorders will also be discussed. Discussion of cancer chemotherapy and principles of surgical oncology will be given in the latter

part of the course. Indications for, and adverse reaction to, blood transfusion will also be addressed.

2.0 Credit Hours

### **COM 6102—Respiratory System**

This course presents pathophysiology, diagnosis and management of selected respiratory disorders, infectious disorders, and neoplasms of the respiratory system. Ventilatory functions and management of respiratory failure are discussed. Speakers are from the Departments of Internal Medicine, Family Medicine, Pediatrics, Pathology, Pharmacology, OPP, and Surgery including the Division of Otorhinolaryngology. There will be 47 hours of lecture, plus reading assignments and additional topics for independent learning.

3.0 Credit Hours

### **COM 6103— Cardiovascular System**

Pathophysiology, diagnosis, and management of common cardiovascular disorders. Teaches electrocardiography, and includes training in the use of "Harvey."

5.0 Credit Hours

### **COM 6104— Gastrointestinal System**

This course covers pathophysiology, diagnosis, and management of gastrointestinal diseases and diseases of the lower and biliary system. The instruction involves the participation of the faculty from Departments of Internal Medicine (Gastroenterology division), Surgery, Pediatrics, Pathology, Pharmacology, and Osteopathic Principles and Practice.

3.0 Credit Hours

### **COM 6105—Endocrine System**

This course presents the pathophysiology, diagnosis, and management of hormonal disorders, including diseases of the endocrine glands, as well as neoplasms and infectious diseases affecting the endocrine system. The system component of the interdisciplinary curriculum involves participation by the Departments of Internal Medicine, Pediatrics, Surgery, Pathology, Pharmacology, and Osteopathic Principles and Practice. Lectures are integrated so that clinical aspects, pathophysiology of diseases, and disorders of each system are addressed.

1.5 Credit Hours

### **COM 6107— Musculoskeletal System**

Diseases and disorders of the musculoskeletal system. Addresses pathophysiology; diagnosis and management of rheumatologic disorders; orthopedics; aspects of physical medicine; and rehabilitation. Osteopathic manipulative medicine is in this system.

2.0 Credit Hours

### **COM 6108—Nervous System and Psychiatry**

Pathology of the nervous system, neurologic dysfunctions, pathophysiology mechanisms of neurologic diseases, pharmacotherapeutics, and rehabilitative aspects of nervous system dysfunctions. Introduces the major clinical concepts of psychiatry. Emphasizes the biophysical model as it relates to the assessment, diagnosis, and empathic and compassionate treatment of major psychiatric disorders, as listed in the DSM-IV.

Addresses the application of osteopathic manipulative medicine to nervous system disorders.

4.0 Credit Hours

### **COM 6109— Renal/Urinary System**

Renal pathophysiology, glomerular, tubulointerstitial diseases, renal failure, congenital disorders, metabolic disorders, neoplasms of the renal/urinary system, and urology.

2.0 Credit Hours

### **COM 6110—Women's Health System**

Pathophysiology, diagnosis, and treatment of common gynecologic and obstetric disorders. Special issues are discussed, such as domestic violence.

3.0 Credit Hours

### **COM 6111—Pediatrics**

This course covers normal and abnormal growth and development in children. Preventive care and health interventions of newborns, growing children, and adolescents are also addressed.

2.0 Credit Hours

### **COM 6123—OPP III**

Continues the study of osteopathic diagnosis and treatment and the development of skills learned in previous semesters. High velocity, low amplitude, techniques are included. Interdisciplinary clinical correlation is emphasized.

2.0 Credit Hours

### **COM 6124—OPP IV**

Development of the osteopathic approach to systemic diseases, using

skills learned in previous semesters. Cranial osteopathic technique is included. Interdisciplinary clinical correlation is emphasized.

2.0 Credit Hours

### **COM 6173—IGC Preceptorship**

The Interdisciplinary Generalist Curriculum (IGC) Program has four components: (1) The IGC Physician Mentor Program; (2) The IGC Managed Care/Business of Medicine Program; (3) the College of Osteopathic Medicine in Community Service (COM Serve) Program; and (4) the Public Health Field Experience. The premise of the IGC Program is that exposure to professional role models is a significant determinant of medical students' career choices. In addition, an early clinical experience is an essential learning component for medical students to begin to correlate classroom knowledge with actual patient encounters.

2.0 Credit Hours

### **COM 6221—ACLS**

ACLS presents a systematic interactive approach to dealing with people experiencing a cardiopulmonary emergency or an acute cerebral vascular accident. ACLS presents a way for resuscitation providers to treat a desperately ill patient in a coordinated way, regardless of whether the response team consists of one person, two people, or more. ACLS-trained providers will use the same guidelines and approaches inside and outside the hospital, as well as nationally and internationally. This course will consist of 15 hours of interactive instruction supplemented by audiovi-

suals; demonstration of required skills on Advanced Life Support Manikins; and practice using defibrillators, EKG monitors, and intubation equipment.

1.0 Credit Hour

### **COM 6300—Foundations and Applications of Clinical Reasoning III**

This course will integrate basic and clinical sciences in a case-based approach. Faculty members from multiple disciplines will guide students in developing the skills necessary to effectively diagnose and manage patients. This course also includes a weekly, two-hour session of board review.

4.0 Credit Hours

### **COM 6301—Foundations and Applications of Clinical Reasoning IV**

This course will integrate basic and clinical sciences in a case-based approach. Faculty members from multiple disciplines will guide students in developing the skills necessary to effectively diagnose and manage patients. This course also includes a weekly, two-hour session of board review.

4.0 Credit Hours

### **COM 7091—Family Medicine I**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

### **COM 7092—Family Medicine II**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

### **COM 7093—Geriatrics**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

### **COM 7094—Psychiatry**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

### **COM 7095—Emergency Medicine**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

### **COM 7102—Internal Medicine I**

Internal Medicine is hospital-based, content-driven specialty training that places a premium on the cognitive

work and interpersonal skills necessary for providing well-patient care and for managing medical problems seen on this clinical service. Emphasis is placed on differentiating normal from abnormal history and physical findings, interpreting diagnostic tests, establishing differential diagnoses, developing skills for accurate reporting and recording of data and problems, and developing management plans—including health education for patients and families and referrals.

4.0–24.0 Credit Hours

### **COM 7103—Internal Medicine II**

Internal Medicine is hospital-based, content-driven specialty training that places a premium on the cognitive work and interpersonal skills necessary for providing well-patient care and for managing medical problems seen on this clinical service. Emphasis is placed on differentiating normal from abnormal history and physical findings, interpreting diagnostic tests, establishing differential diagnoses, developing skills for accurate reporting and recording of data and problems, and developing management plans—including health education for patients and families and referrals.

4.0–24.0 Credit Hours

### **COM 7104—General Surgery I**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty. It will also provide exper-

rience and help acquire skills in a surgical setting.

4.0–24.0 Credit Hours

### **COM 7105—General Surgery II**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

### **COM 7106—Internal Medicine III**

Internal Medicine is hospital-based, content-driven specialty training that places a premium on the cognitive work and interpersonal skills necessary for providing well-patient care and for managing medical problems seen on this clinical service. Emphasis is placed on differentiating normal from abnormal history and physical findings, interpreting diagnostic tests, establishing differential diagnoses, developing skills for accurate reporting and recording of data and problems, and developing management plans—including health education for patients and families and referrals.

4.0–24.0 Credit Hours

### **COM 7110— Obstetrics and Gynecology**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

### **COM 7131— Pediatrics/Ambulatory**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

### **COM 7132—Pediatrics/Hospital**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

### **COM 7151—Rural Medicine I**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

### **COM 7152—Rural Medicine II**

Rural medicine incorporates family medicine training into the rural setting and stresses the development of the independent practitioner who, with a minimum use of sophisticated technical and ancillary services, will have the ability to diagnose and formulate a treatment plan based on the data gathered through history, physical examinations, and minimal laboratory work. The core medical knowledge and practical experience gained in the didactic years

and in family medicine rotations will provide the platform for learning to diagnose and provide cost-effective treatment and education for patients within the rural setting.

4.0–24.0 Credit Hours

### **COM 7153—Rural Medicine III**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

### **COM 8004—Senior Seminar**

A series of presentations prior to graduation to reinforce knowledge and skills useful for the internship experience. Topics include: medical economics, risk management, on-call medication, physician impairment, professional liability, medical licensure, and emergency management. A mock trial is presented.

1.0 Credit Hour

### **COM 8009—Emergency Medicine**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

### **COM 8011—Otolaryngology**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct

supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

### **COM 8012—Family Medicine**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

### **COM 8014—Surgery—General**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

### **COM 8015—Geriatric Medicine**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

### **COM 8018—Internal Medicine**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours



**COM 8020—Radiation Oncology**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

**COM 8021—Medical Genetics**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

**COM 8022—Nuclear Medicine**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

**COM 8023—Neurology**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

**COM 8024—Neurological Surgery**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environ-

ments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

**COM 8025—Obstetrics and Gynecology**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

**COM 8027—OPP Medicine**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

**COM 8028—Ophthalmology**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

**COM 8029—Orthopedic Surgery**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct

supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

#### **COM 8030—Preventive Medicine**

Pain management is considered an elective rotation to be taken during fourth-year clerkships. COM students performing this elective clerkship will be exposed to patients with chronic pain syndromes and the management of these unique diseases by a physician who specializes in this area of medicine.

4.0–24.0 Credit Hours

#### **COM 8031—Pathology**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

#### **COM 8032—Pediatrics**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

#### **COM 8035—Plastic Surgery**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

#### **COM 8036—Psychiatry**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

#### **COM 8037— Radiology—Diagnostic**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

#### **COM 8038—Physical Medicine and Rehabilitation**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

#### **COM 8040— Rural/International Medicine**

Rural medicine incorporates family medicine training into the rural setting and stresses the development of the independent practitioner who, with a minimum use of sophisticated technical and ancillary services, will have the ability to diagnose and formulate a treatment plan based on the data gathered through history, physical examinations, and minimal laboratory work. The core medical knowledge and practical experience

gained in the didactic years and in family medicine rotations will provide the platform for learning to diagnose and provide cost-effective treatment and education for patients within the rural setting.

4.0–24.0 Credit Hours

#### **COM 8042—Thoracic Surgery**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

#### **COM 8044—Urology**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

#### **COM 8103—Allergy and Immunology**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

#### **COM 8104—Anesthesiology**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct

supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

#### **COM 8105—Colon and Rectal Surgery**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

#### **COM 8108—Dermatology**

The clerkship will expose the student to the practice of medicine in the inpatient and ambulatory environments. Students will be engaged in the care of patients under the direct supervision of a physician certified in a specialty.

4.0–24.0 Credit Hours

#### **COM 8170—Public Health**

A structured and supervised experience at a public health agency or public health-related institution. The student will acquire skills and experiences in the application of basic public health concepts and specialty knowledge to the solution of community health problems.

4.0–24.0 Credit Hours

#### **COM 9100—Osteopathic Principles and Practice Fellowship**

The continuation of the first practicum, this rotation builds on the Fellows' patient care responsibilities and stresses a more intense teaching load.

8.0–48.0 Credit Hours

### **COM 9200—Research Fellowship**

The goal of the research fellowship is to provide a year-long, structured training experience in conceptualizing, conducting, and disseminating research for select medical students in the College of Osteopathic Medicine (COM). The fellowship consists of three core activities: completing academic coursework, serving as research associate on an existing research study, and participating in communication of scientific knowledge. The percentage of time each fellow will dedicate to the three activities will be outlined in an individualized fellowship training plan. Following the model of the OPP fellowship, the fellowship year will occur between the M2 and M3 years. In addition to their fellowship year, fellows will receive tuition remission for their M3 and M4 years.

8.0–48.0 Credit Hours

### **COM 9300—Medical Spanish**

This introductory course will provide the medical student with the fundamentals needed to interview Spanish-speaking patients (history, disease presentation) and provide these patients with basic medical information with regards to diagnosis, treatment, and public health concerns.

2.0 Credit Hours

### **COM 9400—Preclinical Preceptorship**

This course provides the opportunity for the student to participate in a self-guided experience in health-related fields. The student will be under the supervision of a College of Osteopathic Medicine faculty member.

Publications and presentations may be generated from this experience.

2.0 Credit Hours

### **COM 9500—Guided Study**

Special assignment on a clinical or scientific subject, under faculty supervision.

2.0 Credit Hours

### **COM 9501—Integration of Biomedical and Clinical Sciences**

Review of basic science as it pertains to osteopathic medical knowledge considered essential for osteopathic generalists to practice medicine without supervision.

5.0 Credit Hours

### **COM 9502—Integration of Clinical Sciences and Diagnosis**

This course is designed to assess the osteopathic medical knowledge considered essential for osteopathic generalist physicians to practice medicine without supervision. Comlex Level 1 represents the basic science examination component of the licensing process of osteopathic medicine.

1.0 Credit Hour

### **COM 9600—Research**

This course provides the opportunity for the student to participate in scientific research in health-related fields. The student will be under the supervision of a research scientist/faculty member. Publications and presentations may be generated from this experience.

3.0 Credit Hours

## **Affiliated Hospitals**

**Aventura Hospital**  
North Miami Beach

**Bay Pines Veteran Affairs  
Medical Center**  
St. Petersburg

**Bethesda Memorial Hospital**  
Boynton Beach  
D.M.E.: Myron Honell, D.O.

**Broward General Medical Center**  
Fort Lauderdale  
Associate Medical Education  
Director: Glenn R. Singer, M.D.  
D.M.E.: Gary Hill, D.O.

**Columbia Hospital**  
West Palm Beach  
D.M.E.: Bradley Feuer, D.O., J.D.

**Coral Springs Medical Center**  
Coral Springs  
D.M.E.: Gary Hill, D.O.

**Florida Hospital East Orlando**  
Orlando  
D.M.E.: Joseph Allgeier, D.O.

**Florida Medical Center**  
Fort Lauderdale  
D.M.E.: Lou Isaacson, D.O.

**GEO Care**  
Pembroke Pines  
D.M.E.: Luis Castillo, M.D.

**Jackson Memorial Hospital North**  
North Miami Beach  
D.M.E.: Stanley Simpson, D.O.

**Kendall Regional Medical Center**  
Miami  
D.M.E.: Stanley Simpson, D.O.

**Lakeside Medical Center**  
Belle Glade  
D.M.E.: Daniel Kairys, M.D.

**Largo Medical**  
Largo  
Regional Dean and D.M.E.:  
Anthony Ottaviani, D.O., M.P.H.

**Larkin Community Hospital**  
Miami-Dade  
Chief Academic Officer: J.D. Suarez  
D.M.E.: Ivan Rodriguez, D.O.

**Lee Memorial Hospital**  
Fort Myers  
DME: Dean Goldberg, D.O.

**Magnolia Regional Health Center**  
Corinth, Mississippi  
D.M.E.: David Pizzimenti, D.O.,  
M.P.H.

**Memorial Regional Hospital**  
Hollywood  
Director of Medical Affairs:  
Stanley Marks, M.D.

**Miami Children's Hospital**  
Miami  
Osteopathic Program Director:  
Mark Gabay, D.O.

**Mount Sinai Medical Center  
/Miami Heart**  
Miami Beach  
D.M.E: Gary Merlino, D.O.

**Naples Community Hospital**  
Naples  
D.M.E.: Dan Kaplan, D.O.

**North Broward Medical Center**  
Pompano Beach  
Associate Medical Education Direc-  
tor: H. Murry Todd, M.D.

**Osteopathic Institute of the South**  
Atlanta  
President: Barry Doublestein

**Palmetto General Hospital**  
Hialeah  
D.M.E.: Marc Morganstine, D.O.

### **Palms West Hospital**

Loxahatchee

D.M.E.: Bradley Feuer, D.O., J.D.

### **Southeast Alabama Medical Center**

Dothan, Alabama

D.M.E.: Alan Purvis, M.D.

### **Southampton Hospital**

Southampton, New York

D.M.E.: Shawn Cannon, D.O.

### **UM/Jackson Memorial Medical Center**

Miami

Director of Emergency Care Center:  
Kathleen Schrank, M.D.

### **West Palm Beach Veterans Affairs Medical Center**

West Palm Beach

Administrator: John Ribnikar

D.M.E.: Shanta Loungani, M.D.

## **Special Academic Programs**

### **The Interdisciplinary Generalist Curriculum (IGC) Program**

The IGC Program exposes medical students to primary care clinical settings from the beginning of their first year, with the long-term goal of increasing the numbers of graduates who will pursue careers in family medicine, general internal medicine, and general pediatrics. The premise of the program is that exposure to professional role models is a significant determinant of medical students' career choices, and that an early clinical experience is an essential learning component for medical students to begin to correlate classroom knowledge with actual patient encounters. The IGC Program is composed of three components: (1) the IGC Physician Mentor Program, (2) the IGC Business of

Medicine/Managed Care Program, and (3) the College of Osteopathic Medicine in Community Service (COM<sup>2</sup>Serve) Program.

### **IGC Physician Mentor Program**

Students are placed with physician mentors, either one or two students at a time. They may elect to switch mentors every semester and are required to switch primary care disciplines and mentors after their first year. In addition to providing a broad exposure to the role of a primary care physician, the physician mentor provides the student with the opportunity to perform patient histories and physical examinations within the limits of the student's ability, and educates the student by providing timely feedback and engaging in discussions and explanations of his or her decision making. There are approximately 140 primary care physician mentors who teach first- and/or second-year medical students in their private offices. This network of preceptors is composed of physicians in the three primary care disciplines; they are located throughout the tricounty area.

### **IGC Business of Medicine/ Managed Care Program**

Students learn the business aspects of practice as well as the various components of managed care organizations (MCOs). Each student is either assigned to an MCO teaching partner, or attends a special conference or seminar on health care systems, policies, and access. Students learn how a managed care organization operates by participating in seminars and small group discussions led by professionals representing various departments/experiences such as medical operations, physician committee meetings, utilization management, quality

management, and provider/practice management.

### **IGC COM<sup>2</sup>Serve Program**

This is the community service component of the IGC preceptorship, in which second-year medical students are involved in service learning with community health centers, public health departments, homeless assistance centers, migrant farm-worker clinics, and other subsidized community clinics. The COM<sup>2</sup>Serve partner organizations provide health care and other needed services to medically underserved, minority, and at-risk populations.

### **Osteopathic Principles and Practice Laboratories**

The development of the palpatory skills used for diagnosis and treatment is a significant distinction between the educational programs in osteopathic and allopathic medical schools. *Stedman's Medical Dictionary* defines palpation as “examination with the hands and fingers; touching, feeling, or perceiving by the sense of touch.” Palpation in the osteopathic medical education context is the use of touch to examine the body. Palpatory skills are used in all areas of osteopathic medical practice and are especially important in the evaluation, diagnosis, and treatment of the musculoskeletal system.

The development of palpatory skills is taught in the first- and second-year osteopathic principles and practice (OPP) courses. Successful completion of these courses requires active participation in all laboratory sessions. During the two years, each student will palpate, in the laboratory setting,

a variety of people, representing both genders and individuals with different body types to simulate the diversity of patients expected in a practice setting. Being palpated by other students helps the student understand from the patient's perspective how palpation feels and enables the students to provide feedback to their laboratory partners, thus enhancing the palpatory skills of all students.

The osteopathic medical profession uses a variety of treatment models, and through the skills development process, the student learns the art and skills of manipulative treatment. Psychomotor skills are developed by repeated practice. Reading and observation, although helpful, do not develop the skills required to perform palpatory diagnosis and manipulative treatment. Each student is required to actively participate in all skills development laboratory sessions. These skills are taught by treating and being treated by a cadre of students of both genders and with varying body types to simulate a medical practice setting.

### **Area Health Education Center (AHEC) Program**

The mission of NSU's Area Health Education Center (AHEC) Program is to improve the access to and the quality of primary health care service to medically underserved communities by linking the resources of academic health centers with community-based health care providers. Nova Southeastern University's College of Osteopathic Medicine, the first medical school in the state of Florida to develop an AHEC Program, officially began its program in 1985. Since its inception, the program

has worked to develop effective and comprehensive training programs that improve access to quality primary health care for Florida's medically underserved rural and inner-city urban communities.

Our nationally recognized program now serves underserved communities and populations throughout a nearly 20,000 square mile area of South and Central Florida. Our first AHEC center—the Everglades AHEC—reaches underserved areas within a 10-county region extending from the inner city of northern Miami-Dade County to rural communities around Lake Okeechobee. Based on the success of the Everglades AHEC, the university was awarded additional funding to develop a Central Florida AHEC, which now serves nine counties and extends from Lake Okeechobee to north of Orlando. By including training programs in community settings, we expose students to the challenges, rewards, and practice opportunities related to working in medically underserved areas. Students have opportunities to work together while learning to provide valuable primary care services to the community.

### **Consortium for Excellence in Medical Education (CEME)**

In January 1999, the College of Osteopathic Medicine established an innovative program to revolutionize clinical education and training. The Consortium for Excellence in Medical Education (CEME), in affiliation with NSU College of Osteopathic Medicine, was formed to increase opportunities for postdoctoral medical training, including internships, resi-

dencies, fellowships, and continuing education programs.

The CEME is an alliance of affiliated clinical sites linked through electronic networks; teaching, research, and community health collaborations; and a shared commitment to excellence in the education of tomorrow's physicians. CEME partners are joining forces on postgraduate clinical education, research initiatives, and public health and preventative medicine programs to benefit Florida's elderly, indigent, and minority patient populations. The CEME creates a unified medical education system composed of Nova Southeastern University College of Osteopathic Medicine and 18 teaching hospitals and hospital systems spanning the state of Florida and includes ambulatory centers, county health departments, and social service agencies. Four additional affiliated programs are located in Georgia, Louisiana, and North Carolina.

The CEME, as a dynamic network of affiliated regional academic training centers, uses distance learning systems to strengthen teaching, research, and community health collaboration while also nurturing a shared commitment to excellence in the education of tomorrow's physicians.

### **West Palm Beach Veterans Affairs Medical Center**

The College of Osteopathic Medicine has a major affiliation with the West Palm Beach Veterans Affairs Medical Center (VAMC). This state-of-the-art health care facility's close academic ties with the college includes sharing academic positions, granting faculty appointments to VAMC staff members, a shared resi-



gency training program in preventive medicine, and major participation in the clinical program of the college. The VAMC employs a computerized paperless patient record system. It also permits X rays to be visualized with high resolution, includes laboratory and other reports that can be retrieved and tracked, has systems that ensure the selection of appropriate drugs for patient safety, and facilitates arrangements for specialist consultations. Students may spend as much as six months at the facility during their clinical years.

### **Rural Medicine Program**

Since its establishment in 1979, the College of Osteopathic Medicine has been committed to educating students about rural medicine and having them train in underserved communities. The Department of Rural Medicine's instructional programs have been recognized nationally for helping to meet the health care needs of underserved communities and enhancing the medical skills of our students.

Our fourth-year medical students train for three months in rural and underserved settings. They are expected to expand their diagnostic and therapeutic skills as well as their patient and community proficiency in relation to addressing multicultural populations. Training sites include community health centers, private physicians' offices, ambulatory care facilities operated by the West Palm Beach Veterans Affairs Medical Center, and leading health care institutions of the Florida Department of Corrections.

The Rural Medicine Training Program provides our students with a unique and enriching experience. A number of our graduates are now clinical directors at the community health centers or have established successful practices in a rural Florida region.

### **Preventive Medicine**

Prevention, in its broadest sense, is practiced by all physicians and other health professionals who help their patients to stay healthy. Preventive medicine, however, is also a distinct medical specialty, one of 25 recognized by the American Board of Medical Specialties.

The specialty of preventive medicine is based on our knowledge that promoting health and preventing disease requires work with both individuals and communities. Preventive medicine physicians are trained in both clinical medicine and public health. They have the skills to understand and reduce the risks of disease, disability, and premature death both in individuals and population groups. The distinctive aspects of preventive medicine include knowledge and competence in

- biostatistics
- bioterrorism
- epidemiology
- environmental and occupational health
- planning, administration, and evaluation of health services
- the social and behavioral aspects of health and disease
- the practice of prevention in clinical medicine

The American Osteopathic Association grants certificates to physicians who have successfully completed three years of supervised training and

a written examination in any one of three areas: general preventive medicine/public health, occupational medicine, or aerospace medicine. Specialists in general preventive medicine/public health focus their skills on population groups, such as the residents of a particular community or state or the patient population of a health center, hospital, or managed care organization.

Preventive medicine specialists work in a wide variety of settings, including primary care and managed care settings, public health and community agencies, industry, and academia. These physicians usually engage in multiple activities, including planning, administration and evaluation of disease prevention and health promotion programs, research, teaching, and direct patient care. The varied career paths include managed care, public health, occupational medicine, aerospace medicine, clinical medicine, informatics, policy development, academic medicine, international medicine, and research, covering all levels of government, educational institutions, organized medical care programs in industry, as well as voluntary health agencies and health professional organizations. About 6,000 physicians nationally are board-certified in preventive medicine.

In addition to the need for more physicians trained in the specialty of preventive medicine, there is a need for more training in prevention in all the other medical specialties, especially in primary care. Toward this end, the Department of Preventive Medicine is initiating efforts to strengthen prevention education, particularly in relation to individual patient care. This will be

accomplished by weaving the distinctive aspects of preventive medicine throughout all coursework offered to medical students at the College of Osteopathic Medicine. Specialists in preventive medicine, who have skills in population-based prevention as well as individual preventive interventions, can assist the other specialties in the further development of education in prevention and the population-based health sciences for residents and medical students alike.

### **Geriatric Teaching Program**

The College of Osteopathic Medicine has a strong commitment to teaching students, residents, and physicians about the care of the geriatric patient. As a result, the college requires a didactic geriatric course in the M-2 year, which addresses “successful aging.” Attention is given to elderly populations and their diverse profiles and circumstances. During the M-3 year, students participate in a month-long, required geriatric clerkship, where they care for elders in a variety of settings under the supervision of a geriatric specialist.

The College of Osteopathic Medicine also provides clinical teaching in geriatrics for second-year family medicine residents from its Palmetto Family Medicine Residency during a one-month rotation. The College of Osteopathic Medicine, along with the North Broward Hospital District, sponsors a geriatric fellowship training program for family medicine physicians who successfully complete an American College of Osteopathic Family Physicians (ACOFFP) approved family medicine residency program. This will prepare the physician for a Certificate of Added Qualifications (CAQ) in geriatrics. We are excited about what we are doing in geriatrics

and are looking for ways to expand our programs and teaching facilities.

### **M.B.A. Program**

The master of business administration program is available to all students who are academically in good standing and have completed the first semester of their first year. The H. Wayne Huizenga School of Business and Entrepreneurship administers the M.B.A. degree. Students may contact the Huizenga School program representative for details on this program. Participation in this program is at the discretion of the dean of the College of Osteopathic Medicine.

### **M.P.H. Program**

The Master of Public Health Program is available to students who are academically in good standing and have completed the first semester of the first year. This degree program is administered by the College of Osteopathic Medicine. Students may contact the public health program director for further information. Participation is at the discretion of the dean of the College of Osteopathic Medicine.

### **M.P.H. Scholarship**

All College of Osteopathic Medicine students who have completed the first semester of their first year and are currently enrolled in NSU-COM classes and in good academic standing are eligible to receive a scholarship for the payment of M.P.H. tuition if they are enrolled in the on-campus program option. To apply for the M.P.H. scholarship, a brief letter must be submitted to the dean of the College of Osteopathic Medicine. The student should indicate the reasons for requesting the scholarship in the letter. Students who receive the scholarship must remain in good standing with the college.

Students are eligible for the scholarship while they are enrolled in the College of Osteopathic Medicine. The scholarship is not available after graduation, unless the student continues as an intern, resident, or fellow with any of the Nova Southeastern University College of Osteopathic Medicine affiliated institutions. All scholarships require renewal by the College of Osteopathic Medicine each academic year.

### **Master of Health Law**

Students in good academic standing matriculated at the College of Osteopathic Medicine may, with the permission of the dean, apply for admission to the NSU Shepard Broad Law Center for the 30-credit Master of Health Law Program. This program, available to students upon completion of their first year of study, is designed to prepare future physicians to identify legal issues within their health professional responsibilities. It will help them acquire in-depth knowledge of the laws and regulations governing medical care and health professional practice. Students who complete the D.O./M.H.L. dual degree also will be especially qualified for leadership positions in managed health care environments as well as other organizations and programs that continue to evolve in the complex world of health care.

### **Master of Science in Education**

The Fischler School of Education and Human Services, in collaboration with the College of Osteopathic Medicine, offers a certificate or master of science degree in medical education for osteopathic medical faculty members who wish to improve their skills as medical educators. The certificate is 18 credit hours, while the master's degree is 36 credit hours. It is designed for career

medical faculty members, helping them to become master educators who are better able to train medical students and residents, develop curriculum, and evaluate education and training programs.

### **D.O. Program for Doctors of Podiatric Medicine (D.P.M.)**

A program has been established leading to the D.O. degree for D.P.M.s in an accelerated period of time. It is designed for students from podiatric medical schools accredited by the Council on Podiatric Medical Education who have been accepted to a podiatric medical and surgery residencies. Particular interest is in those applicants who intend to acquire the D.O. degree to provide added value to podiatric medical practice. A limited number of D.P.M.s will be accepted each year. The program leads to a D.O. degree and a license to practice osteopathic medicine in states requiring one year of internship as well as to eligibility for certification by the American Board of Podiatric Orthopedics and Primary Podiatric Medicine (ABPOPPM). Applicants admitted to the program will be granted credit for the core basic sciences courses in the D.O. curriculum. The ABPOPPM will determine the amount of credit it will grant toward the completion of the two-year residency in podiatric medicine and surgery. Applicants may apply from all states but preference will be granted to those who are legal residents of Florida. Additional information about the program, including details about the curriculum, may be obtained by contacting the associate dean of education, planning, and research, NSU College of Osteopathic Medicine, 3200 South University Drive, Fort Lauderdale, Florida 33328-2018.

### **D.O./D.M.D. Dual-Degree Program**

In order to address the access to care issue and meet the needs of underserved populations, Nova Southeastern University's (NSU's) College of Dental Medicine and College of Osteopathic Medicine have structured a curriculum that provides students with an opportunity to receive a D.O. (Doctor of Osteopathic Medicine) and a D.M.D. (Doctor of Dental Medicine) degree. This D.O./D.M.D. Dual-Degree Program is in accord with the missions of both schools. This dual program will prepare health care practitioners to use a totally holistic approach to health care that will address preventive medicine and general dentistry, as well as access to care issues, meeting the needs of rural and underserved populations.

Once students complete this six-year program, they will be qualified for licensure in dentistry and for post-graduate, one-year residencies that are required prior to medical licensure. Only a select number of motivated students who have attained the highest academic standards and embody the spirit of this collaborative initiative will be considered.

### **Master of Public Health Program**

The Master of Public Health (M.P.H.) Program is an accredited graduate level program designed to prepare students to define, critically assess, and resolve public health problems. The program provides training in the theories, concepts, and principles of public health and their application.

To meet the rapidly changing needs of health service professionals, including preventive medicine specialists, the curriculum is structured to accommodate a diversity of backgrounds and individual career goals.

The demand for public health professionals is increasing as a result of emerging and re-emerging diseases, environmental health concerns, health care reform, health care system, sociopolitical factors affecting our nation's health, and expansion of health issues that are global in scope. Professionals with the M.P.H. degree may hold positions of responsibility in a variety of settings including health care facilities, county and state health departments, social service agencies, health policy and planning organizations, universities, and community-based health education and health promotion settings, nongovernmental organizations, governmental agencies, international health organizations, and the corporate world. These positions often involve active participation of the M.P.H. graduate in the coordination, planning, development, implementation, and evaluation of health programs and services. Some students pursue further advancement in their graduate education upon completion of the M.P.H. degree program.

### **Program Mission**

To improve the health of the population through education, research, and service, with emphasis on multicultural and underserved populations.

### **Goal: Education**

To provide quality education in public health

### **Goal: Research**

To contribute to the discovery and application of knowledge in public health

### **Goal: Service**

To provide public health leadership and service in the community

### **Course of Study**

The M.P.H. Program offers a general master of public health (M.P.H.) degree, which requires a minimum of 42 semester hours of study. This consists of 27 semester hours of required core courses, including a public health field experience (6 semester hours), a minimum of 15 semester hours of public health elective courses, and a comprehensive examination. Coursework may be taken on a full-time or part-time basis. M.P.H. students are required to complete their course of study within five years of matriculation. A full-time student may be able to complete the requirements within two years or less. The M.P.H. degree may be completed on-site or online. A Spanish-language version of the online program is available for those who wish to complete their M.P.H. in Spanish. The curricula for the three options are identical, although the modality of instruction is different. On-site classes are offered in the evening, with each class generally scheduled one evening per week. Up to 15 credits of online courses are allowable to complete the onsite option. There are supervised elective field-based courses, projects, and research opportunities available to students. The capstone experience consists of the public health field experience and the comprehensive examination. An on-site orientation session is available at the beginning of the program each semester. Graduating students

have the opportunity to participate in a commencement exercise in May of each year.

The schedule of course offerings and other pertinent information about the program is available on the program Web site: [www.nova.edu/ph](http://www.nova.edu/ph).

## Accreditation

The M.P.H. Program is accredited by the Council on Education for Public Health (CEPH) ([www.ceph.org](http://www.ceph.org)).

The College of Osteopathic Medicine is accredited by the American Osteopathic Association.

Nova Southeastern University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (SACS).

## Admission to the Master of Public Health Program

### Admissions Requirements

The M.P.H. Program evaluates the overall quality of its applicants, including academic achievement, personal motivation, knowledge about the public health profession, health care and life experience, and recommendations. Criteria for admission are as follows:

- The applicant must hold a bachelor's, master's, or a doctoral degree from an accredited college or university.
- A cumulative grade point average (GPA) of 3.0 and above, on a four-point scale, is preferred.
- Public health or health care related experience is desirable, but not required.
- Evidence of having taken one of the following standardized tests: GRE, PCAT, OAT, AHPAT, MCAT,

DAT, GMAT, or LSAT, if the applicant does not hold a health-related graduate or professional degree. The scores must be no more than five years old. Applicants with a health-related graduate or professional degree may be required to submit official test scores upon evaluation of their application.

- Applicants enrolled in another area of study within Nova Southeastern University must provide a letter of recommendation from the dean or program director of the other college or program, and must meet the M.P.H. admission requirements.
- All application materials must be received in a timely manner to enable the Office of Admissions and the admissions committee to process the application promptly.

### Application Procedures

The Office of Admissions processes applications on a year-round basis. Applicants may apply for matriculation into any one of three semesters (fall, winter, summer), and may contact the Office of Admissions at (954) 262-1111 or access the M.P.H. Program Web site ([www.nova.edu/ph](http://www.nova.edu/ph)) for the exact deadline and start dates. All application materials should be sent to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Osteopathic Medicine  
M.P.H. Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905

Applicants must provide the following:

1. a completed online application, along with a \$50, nonrefundable application fee

2. official transcripts of all coursework attempted by the applicant at all colleges and universities (It is the responsibility of the applicant to ensure that arrangements are made for all transcripts to be sent. A final transcript of all the applicant's work up to the time of matriculation must be forwarded to the Office of Admissions prior to matriculation.)

3. official scores of one of the following standardized tests taken by the applicant: GRE, PCAT, OAT, AHPAT, MCAT, DAT, GMAT, or LSAT, if the applicant does not hold a health-related graduate or professional degree (The scores must be no more than five years old. Applicants with a health-related graduate or professional degree may be required to submit official test scores upon evaluation of their application.)

4. official scores from the Test of English as a Foreign Language for international students

5. two letters of evaluation, one of which must be from a health professional (The other letter of evaluation must be from an individual—other than a relative—such as an academic adviser, professor, coworker, or supervisor who is familiar with the applicant's character, scholastic aptitude, and work ethic.)

Upon receipt of the completed application and required material, the committee on admissions will review the application and make recom-

mendations to the program director. The applicant's file is, subsequently, reviewed by the committee on admissions, which submits a recommendation to the program director. The committee may request a phone interview to gather additional information before a recommendation is submitted. The director submits his or her recommendation on admission to the dean. The final decision on admission is made by the dean of the NSU College of Osteopathic Medicine.

### **Graduate Certificate Programs**

The M.P.H. Program offers graduate certificates in public health and health education.

Criteria for admission are as follows:

- The applicant must hold a bachelor's, master's, or doctoral degree from an accredited college or university.
- A cumulative grade point average (GPA) of 3.0 or above on a 4.0 scale is preferred.

Applicants must provide the following:

- completed online application form
- official transcripts
- nonrefundable application fee of \$50
- one letter of recommendation (academic)

### **Graduate Certificate in Public Health**

The Graduate Certificate in Public Health program is designed to educate students on the fundamental principles, concepts, and skills applied to public health practice. It consists

of the following courses, totaling 15 credit hours, and a comprehensive examination (taken within two years of successfully completing the courses):

PUH 5430 Epidemiology  
3 Credit Hours

PUH 6001 Social and Behavioral  
Sciences Applied to Health  
3 Credit Hours

PUH 5512 Health Policy,  
Planning, and Management  
3 Credit Hours

PUH 5301 Biostatistics  
3 Credit Hours

PUH 5220 Environmental and  
Occupational Health  
3 Credit Hours

This certificate will be presented to the student after all program requirements are successfully met and a comprehensive examination is successfully completed. If, after taking classes in the M.P.H. Program, a certificate-seeking student decides to pursue the M.P.H. degree, the student must submit a new and complete application to the program to become a degree-seeking student and must meet all the requirements for admission to the M.P.H. Degree Program. Previous coursework taken may be transferable if performance equals or exceeds the grade of *B* in the course.

### **Graduate Certificate in Health Education**

The Graduate Certificate in Health Education program is designed to enable the student to learn the fundamental principles, concepts, and skills

applied to health education, health promotion, and disease prevention at the graduate level. It consists of the following courses, totaling 15 credit hours, and a comprehensive examination (taken within two years of successfully completing the courses):

PUH 5115 Principles of Health  
Education  
3 Credit Hours

PUH 5516 Public Health  
Informatics  
3 Credit Hours

PUH 5002 Health Promotion and  
Disease Prevention  
3 Credit Hours

PUH 6104 Health Service Planning  
and Evaluation  
3 Credit Hours

PUH 5210 Public Health  
Communications  
3 Credit Hours

This certificate will be presented to the student after all program requirements are successfully met and the comprehensive examination is successfully completed. A student who wishes to pursue National Certification (Certified Health Education Specialists) may take 10 additional credits of recommended coursework to meet the 25 credits, with additional competencies, required to be eligible for the national certification examination.

### **Nondegree-Seeking Students**

A nondegree-seeking student is one who wishes to take a course in the public health program, but does not intend to pursue the master of public health degree at the time of application. The nondegree-seeking student



must provide the following admission requirements in order to take classes in the M.P.H. Program:

- completed online application form
- official transcripts
- nonrefundable application fee of \$50
- one letter of recommendation (academic)

Undergraduate students must have a minimum cumulative GPA of 3.0 with at least 90 hours of coursework, 30 hours of which must be upper level courses. An official transcript showing the coursework is required.

Application for nondegree status by students holding a bachelor's degree or higher will be considered by the admissions committee, through a review of the required records.

Nondegree-seeking students are limited to a maximum of 12 semester hours of public health program courses. Enrollment in these courses does not guarantee acceptance into the Master of Public Health degree-seeking program. After taking classes in the program as a nondegree-seeking student, the student must submit a complete application to the program to become degree-seeking. The student must also meet all the requirements for admission.

Graduate students from other NSU programs who elect to take public health courses may do so with the written consent of the course director.

The university reserves the right to modify any requirements on an individual basis as deemed necessary by the dean of the College of Osteopathic Medicine.

The college reserves the right to require the student's withdrawal at any time the college deems it necessary to safeguard its standards of scholarship, conduct, and compliance with the regulations, or for such other reason as deemed appropriate. The student, by his or her act of matriculation, concedes the college this right.

### **Tuition and Fees**

Tuition is \$475 per credit hour. Tuition and fees are subject to change without notice. A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.

### **Financial Aid**

The purpose of the Student Financial Assistance Program at Nova Southeastern University is to help as many qualified students as possible to complete their educational pursuit. Various loans, scholarships, and grants are available to qualified students to help ease the high cost of their education. These financial assistance programs are described in a separate university publication: *A Guide to Student Financial Assistance*.

### **Transfer of Credits**

Applicants to or enrollees of the NSU-COM M.P.H. Program may petition for transfer of a maximum of 12 credit hours of elective or core courses from a regionally accredited graduate program toward their M.P.H. degree. The core courses must have been taken at a program, school, or college accredited by the Council on Education for Public Health (CEPH).

Any courses taken at another academic program or institution that the student wants to transfer to meet the requirements of this M.P.H. degree program must have the prior approval of the program director. All courses considered for transfer into the program must have been successfully completed with a grade of B (80) or better and must not have been applied to another awarded degree. Transfer course grades are not calculated toward the student's grade point average.

The course transfer applicant must submit a written request to the program director, along with the appropriate verification documents (i.e., official transcripts, syllabi, and catalogs). The Student Progress and Advising Committee will review all applications for transfer of credit, including the documents provided on the petitioned courses. The committee will submit its recommendations to the program director who makes the final decision. The program does not give course credit for prior work experience.

## **Graduation Requirements**

To be eligible for the M.P.H. degree, the student must

- satisfactorily complete, with a grade point average of 3.0 or higher and within five years of matriculation, the course of study required for the M.P.H. degree—a minimum of 42 semester hours of courses (27 hours of required core courses, including the Public Health Field Experience, and 15 hours of electives)
- successfully pass the comprehensive examination
- complete an exit survey
- satisfactorily meet all financial and library obligations

Upon satisfactory completion of degree requirements, the student is expected to attend the rehearsal and commencement program, at which time the degree is conferred. Students who do not plan to attend the commencement ceremonies must notify the program office before the established deadline for the commencement application.

## Curriculum Outline

Core Courses (required)		Lecture	Practice	Semester Hours
PUH 5220	Environmental and Occupational Health	45	0	3
PUH 5301	Biostatistics	45	0	3
PUH 5430	Epidemiology	45	0	3
PUH 5512	Health Policy, Planning, and Management	45	0	3
PUH 5520	Legal and Ethical Issues in Public Health	45	0	3
PUH 6001	Social and Behavioral Sciences Applied to Health	45	0	3
PUH 6002	Public Health Field Experience	0	200	6
PUH 6604	Research Methods in Public Health	30	30	3

Elective Courses		Lecture	Practice	Semester Hours
PUH 5002	Health Promotion and Disease Prevention	45	0	3
PUH 5003	Public Health Seminar	30	15	3
PUH 5004	Public Health Grant Writing	15	60	3
PUH 5014	Principles and Practice of Clinical Trials	45	0	3
PUH 5101	Introduction to Public Health	45	0	3
PUH 5110	Culture, Ethnicity, and Health	45	0	3
PUH 5111	Public Health Issues of the Elderly	45	0	3
PUH 5112	Bioterrorism and All-Hazards Preparedness	45	0	3
PUH 5115	Principles of Health Education	45	0	3
PUH 5210	Public Health Communications	15	60	3
PUH 5305	Advanced Biostatistics	15	60	3
PUH 5311	Public Health Genomics	45	0	3
PUH 5313	Vaccines and Vaccine-Preventable Diseases	45	0	3
PUH 5314	Global Health	45	0	3

PUH 5420	Epidemiology of Diseases of Major Public Health Importance	45	0	3
PUH 5431	Community Health Assessment	45	0	3
PUH 5500	School Health	45	0	3
PUH 5502	Children's Health	45	0	3
PUH 5503	Women's Health	45	0	3
PUH 5504	Public Health Issues in Child Protection	45	0	3
PUH 5510	Maternal and Child Health	45	0	3
PUH 5513	Public Health Nutrition	45	0	3
PUH 5516	Public Health Informatics	45	0	3
PUH 5802	Epidemiologic Surveillance and Outbreak Investigation	30	30	3
PUH 6008	Public Health Advocacy	45	0	3
PUH 6016	Survey Methods in Public Health	30	30	3
PUH 6017	Special Studies in Public Health	0	90	3
PUH 6022	Community Health Project	0	90	3
PUH 6101	Health Care Organization and Administration	45	0	3
PUH 6104	Health Services Planning and Evaluation	45	0	3
PUH 6201	Tropical Diseases	45	0	3
PUH 6521	Budgeting and Accounting for Health Care Organizations	45	0	3
PUH 6522	Strategic Marketing for Health Care Organizations	45	0	3
PUH 6523	Strategic Leadership in Management of Human Resources	45	0	3
PUH 6605	Grant Proposal Writing Practicum	15	60	3
PUH 6606	Introduction to SAS	45	0	3
PUH 6608	Public Health Research	0	90	3
PUH 6690	Comprehensive Examination	30	0	0

## Master of Public Health Program Courses

Note: Listed at the end of each entry is lecture hours, laboratory hours, and semester hours, also note prerequisites.

### PUH 5002—Health Promotion and Disease Prevention

Students learn health education strategies that can be incorporated into multiple settings, focusing on wellness and preventive interventions. This course addresses individual and social factors as well as behavioral issues, health detriments, and community resources. (45-0-3)

### PUH 5003—Public Health Seminar

The course requires attendance at a minimum of 45 hours of public health special lectures arranged or preapproved by the course director. A written report is required for each lecture. The student may fulfill the total required hours of lectures over three semesters, starting from the semester of enrollment. (30-15-3)

### PUH 5004—Public Health Grant Writing

Introduction to the skills of grant writing in public health. Each student will submit a grant as a culminating experience. (15-60-3)

### PUH 5014—Principles and Practice of Clinical Trials

This course introduces students to the principles and practice of clinical trials and their application to public health. Ethical issues and the role of the Institutional Review Board will also be addressed. **Prerequisites:** PUH 5430, PUH 5301 (45-0-3)

### PUH 5101—Introduction to Public Health

An introduction to the history, concepts, values, principles, and practice of public health. It provides an overview of the essential areas of public health including biostatistics; epidemiology; social and behavioral sciences; environmental and occupational health; and health policy, planning, and management. (45-0-3)

### PUH 5110—Culture, Ethnicity, and Health

Introduces students to skills and insights necessary in promoting health in diverse populations. Issues discussed include the need for effective communication, with an understanding of cultural factors and how they impact on preventive efforts, health care status, access to health care, and use and cost of health care services. The course also explores traditional modalities of health maintenance among various populations. (45-0-3)

### PUH 5111—Public Health Issues of the Elderly

Examines important determinants of morbidity and mortality among the aged population. Emphasizes social, cultural, economic, behavioral, and physical characteristics of importance in the design and development of appropriate prevention efforts directed at the elderly. (45-0-3)

### PUH 5112—Bioterrorism and All-Hazards Preparedness

An overview is provided regarding disasters that may result due to bioterrorism, other weapons of mass destruction, nonintentional man-made disasters, natural disasters (e.g., hurricanes, floods, tornadoes, wildfires, earthquakes), and pandemics.

Major consideration is given to disaster prevention, response, mitigation, and recovery. The importance of a personal plan is stressed. (45-0-3)

### **PUH 5115—Principles of Health Education**

Historical and philosophical foundations of health education, focusing on the principles of the discipline and preparation for service as a professional. Theoretical models will be discussed. (45-0-3)

### **PUH 5220—Environmental and Occupational Health**

Investigates environmental and occupational factors that contribute to the development of health problems in industrialized and developing countries. Includes such topics as toxic substances, pests and pesticides, food quality, air and water pollution, solid and hazardous waste disposal, occupational hazards, and injury prevention. (45-0-3)

### **PUH 5301—Biostatistics**

This course focuses on the principles and reasoning underlying modern biostatistics and on specific inferential techniques commonly used in public health research. At course completion, students will be able to apply basic inferential methods in research endeavors, and improve their abilities to understand the data analysis of health-related research articles. (45-0-3)

### **PUH 5305—Advanced Biostatistics**

This course addresses advanced statistical methodologies for students who want to pursue research in the public health or medical professions. The concepts of regression, correlation, and prediction will provide practical methods to answer clinical/health research questions. Three types of regressions (linear, logistic, and time-

to-event) are taught. **Prerequisite:** PUH 5301 (15-60-3)

### **PUH 5311—Public Health Genomics**

This course addresses the principles and practices of genetics and genomics, as well as the ethical, legal, and social issues of genetics and genomics in public health practice. (45-0-3)

### **PUH 5313—Vaccines and Vaccine-Preventable Diseases**

This course addresses the spectrum of vaccine-preventable diseases and vaccines administered routinely to children, adults, and travelers. The benefits and problems associated with vaccinations will be addressed. (45-0-3)

### **PUH 5314—Global Health**

This course addresses global health problems and trends translated to the needs and demands of populations, as well as the socioeconomic and political impact on health delivery. The role of international health agencies will also be addressed. (45-0-3)

### **PUH 5420—Epidemiology of Diseases of Major Public Health Importance**

In-depth study of the distribution and determinants of specific infectious, non-infectious, and chronic diseases of public health importance. **Prerequisites:** PUH 5430, PUH 5301 (45-0-3)

### **PUH 5430—Epidemiology**

Examines basic principles and methods of modern epidemiology used to assess disease causation and distribution. Students develop conceptual and analytical skills to measure association and risk, conduct epidemiological surveillance, evaluate screening and diagnostic tests, and investigate disease outbreaks and epidemics. (45-0-3)

### **PUH 5431—**

#### **Community Health Assessment**

Community Health Assessment (CHA) is a process of collecting, analyzing, and reviewing public health data to understand community health needs and facilitate planning of community health resources. CHA serves a core function for local health departments and organizations. In this course, students will learn to locate appropriate public health data sources, analyze public health data, and write a community health profiling report. (45-0-3)

### **PUH 5500—School Health**

Study of the development and enhancement of school level health education and health service programs that support student health and academic achievement. (45-0-3)

### **PUH 5502—Children’s Health**

This course addresses disease and disorders of children of public health significance as well as public health issues in children such as child safety, child abuse, and newborn screening. (45-0-3)

### **PUH 5503—Women’s Health**

This course addresses disease and disorders of women of public health significance as well as public health issues of women such as domestic violence and breast cancer. (45-0-3)

### **PUH 5510—Maternal and Child Health**

This course addresses public health issues pertaining to mothers and children. It also addresses programs for prevention, both in the United States and globally, and resources for the programs. (45-0-3)

### **PUH 5512—Health Policy, Planning, and Management**

Discusses principles and logic involved in health policy, planning, and management. Addresses history, political, and environmental contexts, and their incorporation into population research. (45-0-3)

### **PUH 5513—**

#### **Public Health Nutrition**

This course will provide students with methods and skills to identify nutrition-related health problems and to plan community-based prevention programs for diverse populations. (45-0-3)

### **PUH 5516—**

#### **Public Health Informatics**

This course focuses on developing the knowledge and skills of systemic application of information, computer science, and technology to public health practice. Students will acquire a basic understanding of informatics in public health practice, and be able to apply the skills of use of some informatics tools in practice (e.g., evidence based practice, GIS). **Prerequisites:** PUH 5301, PUH 5430 (45-0-3)

### **PUH 5520—Legal and Ethical Issues in Public Health**

Introduces nonlawyers to the important roles law and ethics play in determining the public’s health. Students develop skills in analyzing political, legislative, and ethical aspects of public health issues. (45-0-3)

### **PUH 5802—Epidemiologic Surveillance and Outbreak Investigation**

This course provides a descriptive analysis of basic components and strategies required for the surveillance and investigation of disease outbreaks. Surveillance data collection, analysis, and reporting are emphasized as well as indicators for

assessing the effectiveness of such programs. **Prerequisites:** PUH 5430, PUH 5301 (30-30-3)

### **PUH 6001—Social and Behavioral Sciences Applied to Health**

Introduces students to the social, cultural, and behavioral foundations of modern public health practice as applied to interventions for disease prevention and health enhancement. Reviews the linkage between public health and other social sciences. Students gain knowledge and awareness of today's most pressing public health problems and the social and behavioral factors determining them. (45-0-3)

### **PUH 6002—Public Health Field Experience**

The field experience is a culminating experience for all M.P.H. students. This required course (200 hours of structured activities) takes place at a public health agency or public health-related institution. The student will work under the supervision of a site-based preceptor and a faculty adviser, who identify the appropriate educational objectives for the experience. The student is expected to acquire skills and experiences in the application of basic public health concepts and specialty knowledge to the solution of community health problems. A comprehensive written report and an oral presentation will be required upon completion of the field experience. **Prerequisites:** PUH 5430, PUH 5301, PUH 5512, PUH 5220, PUH 6001 (0-200-6)

### **PUH 6008—Public Health Advocacy**

This course will enable students to develop tools and skills to influence the political processes at the national, state, and community levels to enhance the public's health

and welfare. A number of faculty and guest lecturers will share their insights and strategies. Speakers will include elected officials, public health leaders, and community advocates. Students will analyze their own attitudes and insights and enhance their political advocacy skills. Case study methods will be used with emphasis on communication, marketing, and education. (45-0-3)

### **PUH 6016—Survey Methods in Public Health**

This course addresses the theory and practice of designing and conducting surveys in public health research and practice. Topics will include survey designs, sampling strategies, data collection methods, interviewing skills, coding, and data analysis. **Prerequisites:** PUH 5430, PUH 5301 (30-30-3)

### **PUH 6017—Special Studies in Public Health**

This elective is a guided study course designed to address a specific area of public health interest to the student, which is not specifically or significantly addressed in other courses. The course director and faculty adviser will guide the student to define the objectives of the course and to fulfill the desired expectations. This course is didactic, not original research, or field experience. (0-90-3)

### **PUH 6022—Community Health Project**

This course is designed to give the student the opportunity to plan, implement, or evaluate a specific community health initiative. It is an applied experience in collaboration with a field-based site. The project is approved and monitored by the course director. (0-90-3)



### **PUH 6101—Health Care Organization and Administration**

This course provides students with an overview of health care management. Organizational behavior, marketing, operations, organization strategy, quality assurance, information systems, and financial management are addressed. The importance of the integration of these components is emphasized. **Prerequisite:** PUH 5512 (45-0-3)

### **PUH 6104—Health Services Planning and Evaluation**

An in-depth study of basic planning and evaluation techniques for the implementation of a community health care program. It addresses policy analysis techniques as well as the conceptual framework for the planning and management of health care programs. The course also reviews essential methods for effective planning and evaluation considering the economic, political, epidemiological, demographic, and other components that contribute to the assessment of health needs and resource allocation. **Prerequisites:** PUH 5430, PUH 5512 (45-0-3)

### **PUH 6201—Tropical Diseases**

This course will address tropical diseases in the world today and their public health significance. Malaria, yellow fever, trypanosomiasis, leishmaniasis, filariasis, dengue fever, malnutrition, diarrheal diseases, and other tropical diseases will be discussed in relation to epidemiology, clinical presentation, and management. The impact of these diseases on global health and economic issues will be discussed. (45-0-3)

### **PUH 6521—Budgeting and Accounting for Health Care Organizations**

This course will provide knowledge and skills in various aspects of budgeting and accounting as it applies to health care organizations. (45-0-3)

### **PUH 6522—Strategic Marketing for Health Care Organizations**

This course will provide students with knowledge and strategies in marketing as it applies to health care. (45-0-3)

### **PUH 6523—Strategic Leadership in Management of Human Resources**

Focuses on the concepts and dynamics of leadership in health care organizations. Emphasizes the interactions and influence processes of leadership to effectively use problem-solving mechanisms in the management of human resources. The student will develop competencies through application of the case study approach in public health practice. (45-0-3)

### **PUH 6604—Research Methods in Public Health**

Provides an intermediate level review of basic research methodology, concepts, and principles common in public health and epidemiological studies. Issues related to the design, development, and realization of public health studies, including sampling, surveying, data collection, and management as well as the interpretation and reporting of findings are discussed. **Prerequisites:** PUH 5430, PUH 5301 (30-30-3)

### **PUH 6605—Grant Proposal Writing Practicum**

In this course, the student will prepare a grant proposal for a public health project of utility to an existing organization. The student will be guided individually by the course director in the planning, writing,

and submission of the grant proposal.  
**Prerequisites:** PUH 5430, PUH 5004 (15-60-3)

### **PUH 6606—Introduction to SAS**

This course introduces students to the basic data concepts and the structure of the SAS programming language. The course will cover both SAS data management and the statistical programming features. A review of those statistical procedures to be programmed in SAS will occur prior to the actual SAS programming. Students will learn how to manipulate actual data sets as well as how to analyze sample data. SAS will be briefly compared with SPSS.

**Prerequisites:** PUH 5301, PUH 5430, (45-0-3)

### **PUH 6608—Public Health Research**

Students conduct supervised research in any of the major areas of public health. The student and faculty adviser define the project and its objectives. **Prerequisites:** PUH 5301, PUH 5430 (0-90-3)

### **PUH 6610—Comprehensive Examination**

Each M.P.H. student must take, and pass, the comprehensive examination at the end of his or her course of study. The purpose of the exam is to assess the individual student's competency to begin work in public health. This short-answer written examination requires critical thinking to integrate learning and apply it to public health scenarios. The student writes the examination with appropriate references during a scheduled, one-week period toward the end of the registered semester (30-0-0)

## **Master of Science in Biomedical Informatics**

Nova Southeastern University College of Osteopathic Medicine in collaboration with the NSU Graduate School of Computer and Information Sciences (GSCIS) has developed a course of study leading to the degree of master of science in biomedical informatics. It is designed to train future leaders in the development, dissemination, and evaluation of information technology as it relates to health care environments, such as hospitals, health systems, health information technology system vendors, eHealth companies, insurers, pharmaceutical companies, and academic institutions. This innovative distance program uses a completely **online format** to enable working professionals to earn a master's degree in biomedical informatics without career disruption.

There has been an emergence of biomedical informatics as a discipline due to advances in computer and communications technology and an increasing awareness of the exponential growth of biomedical knowledge. This has been accompanied by clinical information that has become unmanageable by traditional, paper-based methods and the growing realization that the process involved in knowledge retrieval and decision making are important to modern biomedicine and clinical decision making.

Biomedical informatics is an interdisciplinary field that incorporates computer and information sciences, cognitive and decision sciences, epidemiology, telecommunications, and other fields. Researchers in this evolving field discover new methods and techniques to enhance health care, biomed-

cal research, and education through information technology. Those in this discipline study and encourage the use of appropriate information to support clinical care, research, teaching, and health services information.

Biomedical informatics allows physicians and other health professionals to integrate advanced information system capabilities and highly trained individuals with a clinical outlook and approach. The methods, tools, and resources developed through biomedical informatics often help physicians and other health professionals accomplish tasks that they were already doing, but in a more efficient, perhaps more accurate, or even entirely new manner. It also allows for the performance of tasks that were not previously possible. Informational technology now provides physicians and other health professionals with the potential to access large databases. As a result, they can now begin to think like epidemiologists, in addition to being providers of patient care.

Specific areas of added value provided by biomedical informatics include

- analyzing information to develop new knowledge and information
- developing action plans to use the new knowledge and to maintain a continuous quality-improvement cycle
- using information and feedback to create an impact on organizational performance
- improving the quality of an academic health center's computing and information technology environment to profoundly influence its ability to compete in education and research

- improving the ability to collaborate with other health organizations including hospitals, health departments, medical societies, and clinicians in rural and remote areas

Those who are part of the biomedical informatics community have the potential to seriously confront many issues that need to be addressed in health care. These issues include

- predicting who will become sick
- preventing health complications or problems in individuals
- making effective interventions in large populations
- reducing adverse complications in health care
- overcoming physician resistance to intricate systems and information technology
- maximizing constrained resources

### **Course of Study**

The M.S.B.I. Program is designed to prepare students for careers in information management, teaching, and research in academic health centers, other health care institutions and organizations, and the health care computing industry. It has become almost axiomatic that the organization and retrieval of information is essential for the development of new knowledge. The quality of a medical school's computing and information technology environment will profoundly affect its ability to compete in both education and research. In addition, the quality of the biomedical informatics program will influence a school's opportunities to collaborate with health organizations such as hospitals, health departments,

medical societies, and physicians in remote areas. The major areas included in the M.S.B.I. education program are computer science and its clinical application in medical informatics, management, and program evaluations of health information technology.

The program provides a course of study leading to a master's degree that will lead to the

- use of information science to enhance clinical performance
- use of information science to improve patient safety (e.g., reduce medical errors)
- acquisition of a position in medical informatics in a health care environment

At the end of the course of study leading to the degree of master of science in biomedical informatics, the graduate will be able to

- layout and design an information system
- understand the fundamentals of a telecommunication network design and the Internet
- have in-depth knowledge of database systems and structures
- evaluate medical information technology to determine what should be integrated into clinical medicine
- employ the knowledge, skills, and concepts of biomedical informatics in evidence-based medicine
- understand documentation requirements for medical records, including risk management and patient safety
- have knowledge in information security and policy formation
- be current about existing and emerging technology in biomedical informatics and related areas

- have a basic understanding of biostatistics and epidemiology and their application to biomedical informatics
- use and apply interface design principles to biomedical informatics systems

### **Admission to the Master of Science in Biomedical Informatics**

The M.S.B.I. Program evaluates the overall quality of its applicants, looking at academic achievement, personal motivation, knowledge of health care, life experience, and recommendations. Priority will be given to those individuals already holding clinical degrees in the health professions.

All applicants for admission must

- hold a bachelor's, master's, or doctoral degree from an accredited institution of higher education
- demonstrate a background in the language of the biomedical sciences by credentials or work experience
- possess a cumulative grade point average of 3.0 or above on a 4.0 scale
- demonstrate competency in the use of computers by credentials or work experience
- demonstrate the ability to clearly communicate in a written manner

A health professions degree is desirable, but not required. Students without prior degrees or work experience in health care and/or information technology may have to take additional courses. All application material must be received in a timely manner to enable the Office of Admissions and the admissions committee to process the application promptly.

## Application Procedures

The Office of Admissions processes applications on a year-round basis. Applicants may apply for matriculation into any one of the three semesters (fall, winter, summer).

To be considered by the admissions committee, all applicants must

- complete the online application
- send the nonrefundable application fee of \$50
- provide one letter of recommendation
- submit official transcripts

Please mail all supplemental admissions material to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Osteopathic Medicine  
M.S.B.I. Admissions  
3301 College Avenue  
P.O. Box 299000

Fort Lauderdale, Florida 33329-9905

Upon receipt of the completed application and required material, the Committee on Admissions will review the application and the applicant's file and make recommendations to the program director. The director submits his or her recommendation on admission to the dean. The final decision on admission is made by the dean of the College of Osteopathic Medicine.

Should you have any questions, please email [msmi@nova.edu](mailto:msmi@nova.edu) or call 800-356-0026, ext. 21032.

## Nondegree-Seeking Students

A nondegree-seeking student is one who wishes to take courses in the M.S.B.I. program, but does not intend to pursue the master's degree at the time of application. The nonde-

gree-seeking student must provide the following admission requirements in order to take classes in the M.S.B.I. program:

- completed online application form
- official transcripts
- nonrefundable application fee of \$50

Nondegree-seeking students are not guaranteed future acceptance into the Master of Science in Biomedical Informatics Program. If after taking classes in the program as a nondegree-seeking student, the student wishes to become degree seeking, they must apply to the M.S.B.I. program as a new student and meet all the requirements for admission.

Nondegree-seeking students may request credit transfer towards the degree once they are admitted to the degree program. All credit transfer requests should be submitted to the program director.

## Tuition and Fees

Tuition is \$535 per credit hour at the College of Osteopathic Medicine. Students are subject to tuition based on whether a course is being offered at NSU-COM or other colleges. An NSU student services fee of \$750 and a Health Professions Division student access fee of \$145 are required annually. Tuition and fees are subject to change without notice.

## Transfer of Credits

Applicants or enrollees of the NSU-COM Master of Science in Biomedical Informatics Program may petition for a transfer of credit hours toward their degree from an accredited institution. To be considered for transfer of credit, courses must have been completed prior to admission to the M.S.B.I. program and less than five years prior to the beginning of the

student's first semester in the M.S.B.I. program. All courses to be transferred must be substantially equivalent to courses offered in the program, as determined by the program director and appropriate faculty members.

All courses considered for transfer into the program must have been successfully completed with a grade of B (80 percent) or better. Transfer course grades are not calculated toward the student's grade point average.

An accepted applicant to the program who wishes to receive transfer credit must submit a written request and the appropriate verification documents (e.g., official transcripts, syllabi, and catalogs) to the program director.

## **Graduation Requirements**

To be eligible for the M.S.B.I. degree, students must fulfill the following requirements:

- satisfactorily complete, with a grade point average of B (3.0) or higher, within five years of matriculation, the course of study required for the M.S.B.I. degree—minimum of 43 semester hours of courses and any required additional courses, if applicable
- satisfactorily meet all NSU financial and library obligations

Upon satisfactory completion of degree requirements, the student is expected to attend the rehearsal and commencement program, at which time the degree is conferred. Students who do not plan to attend the commencement ceremony must notify the program office before the established deadline.

## **Curriculum Requirements**

To develop a comprehensive biomedical informatics program at NSU-COM, a curriculum has been developed that includes teaching, clinical care, research, and development.

The didactic courses will be offered online, using WebCT or some similar format. Students will be required to complete a practicum within the environment in which it is being conducted. Each practicum will require the submission of a completed project or report.

## Biomedical Informatics Program Curriculum Outline

Required Courses		Credits
MI 5120	Management Information Systems in Health Care	3
MI 5130	Database Systems in Health Care	3
MI 5152	Information Security in Health Care	3
MI 5153	Telecommunications and Computer Networking in Health Care	3
MI 5160	System Analysis and Design in Health Care	3
MI 5200	Survey of Medical Informatics	3
MI 5204	Clinical Decision Support Systems	3
MI 5205	Program Evaluations in Health Information Technology	3
MI 5401	Managing Organizational Behavior for Medical Informatics	3
MI 7000	Medical Informatics Project/Practicum	4
<b>Subtotal</b>		<b>31</b>

Elective Courses (12 credits required)		Credits
MI 5121	Information Systems Project Management in Health Care	3
MI 5180	Human-Computer Interaction in Health Care Settings	3
MI 5203	Medical Informatics Applications to Health Services	3
MI 6400	Outcome Research	3
MI 6401	Biostatistics	3
MI 6403	Epidemiology	3
MI 6404	Special Topics in Health Informatics	3
MI 6405	Public Health Informatics	3
MI 6406	Information Technology Applications in Management Decisions	3
MI 6407	Grant Writing	3
MI 6408	Health Policy, Planning, and Management	3
MI 6409	Health Services Planning and Evaluation	3
MI 6410	Consumer Health Informatics	3
MI 6411	Health Information Technology Acquisition and Assessment	3
MI 6412	Leadership in Health Information Technology	3
<b>Total Credits</b>		<b>43</b>

## **Master of Science in Biomedical Informatics Program Core Courses**

### **MI 5120—Management Information Systems in Health Care**

This online, interactive course covers major concepts, systems, and methodology in managing health care information systems. Topics will include concepts in system implementation and support, information architecture, IT governance in health care, information systems standards, organizing IT services, strategic planning, IT alignment with the health care facilities, and management's role in major IT initiatives. (3 credits)

### **MI 5130—Database Systems in Health Care**

This course covers basic to intermediate knowledge of the concept, design, and implementation of database applications in health care. Students will study tools and data models for designing databases such as E-R Model and SQL. The course also covers Relational DBMS systems such as Access, SQL Server, Oracle, and MySQL. Besides, database connectivity design (essential in data-driven Web development), database administration, XML, and data warehouse (support for decision-making) will also be introduced. Students will practice designing, developing, and implementing a test relational online medical informatics database application (part of a recent federal research grant) through a comprehensive project that contains the above topics. (3 credits)

### **MI 5152—Information Security in Health Care**

The course will cover concepts and applications of health care system and data security. Topics include risks and vulnerabilities, policy formation, controls and protection methods, database security, encryption, authentication technologies, host-based and network-based security issues, personnel and physical security issues, and issues of law and privacy. Areas of particular focus include secure health care system and network design, implementation and transition issues, and techniques for responding to security breaches. (3 credits)

### **MI 5153—Telecommunications and Computer Networking in Health Care**

The understanding of telecommunications and networking is imperative for adequate functioning of health care organizations. This is due to the convergence of computing, data management, telecommunications, and the growing applications of information technology in the health care arena and medical facilities. The knowledge of these key areas of information systems also becomes essential for competitive advantage. This course combines the basic technical concepts of data communications, telecommunications, and networking with the health care IT management aspects and practical applications. (3 credits)

### **MI 5160—Systems Analysis and Design for Health Care**

The need to create effective, new solutions and innovative interventions to deliver quality patient care outside of the traditional medical



setting is at the forefront of society today. The basis of this course will be providing a solid educational foundation for systems design and analysis, as it relates to current and future health care systems. In addition, this course will build upon the fundamental systems design and analysis principles to explore current and future health care systems that will include integration of disparate clinical health care systems and mobile technologies, as well as a combination of remote-monitoring technology, sensors, and online communications and intelligence to improve patient adherence, engagement, and clinical outcomes. (3 credits)

#### **MI 5200—Survey of Medical Informatics**

This online, interactive course is an introductory survey of the discipline of biomedical informatics. This course will introduce the student to the use of computers for processing, organizing, retrieving, and using biomedical information at the molecular, biological system, clinical, and health care organization levels. The course is targeted at individuals with varied backgrounds including medical, nursing, pharmacy, administration, and computer science. The course will describe essential concepts in biomedical informatics that are derived from medicine, computer science, and the social sciences. (3 credits)

#### **MI 5204—Clinical Decision Support Systems**

With the increasing complexity of clinical medicine, clinical decision support systems (CDSS) have evolved to become important cognitive prostheses for diagnostic and treatment

purposes. Clinical decision support systems have been utilized in many areas of clinical medicine, nursing, pharmacy, health care administration, and research. This course introduces students to statistical and theoretical concepts underlying modern medical decision making, including Bayesian analysis. It then proceeds to review the multiple methods for knowledge generation for CDSS systems. The course provides hands-on experience to students in performing Bayesian analysis of clinical problems and building and annotating computer-interpretable guidelines. Current implementations of stand-alone and integrated CDSS will be evaluated. Techniques for planning and evaluation of CDSS implementation will be reviewed. Human factors, including work-flow integration, and the ethical, legal, and regulatory aspects of CDSS use will be explored. (3 credits)

#### **MI 5205—Program Evaluations in Health Information Technology**

This online, interactive course will introduce students to various evaluation methods for health care informatics systems, projects, and proposals. Students will consider both quantitative and qualitative methods of evaluation as they examine the design and implementation processes. Topics will include: why to evaluate health care informatics projects, deciding what to evaluate, deciding when evaluation should occur, quantitative and qualitative evaluation methods, overview of some descriptive and inferential statistical methods, barriers and facilitators to project implementation,

and both internal and external stakeholders of an organization. (3 credits)

#### **MI 5401—Managing Organizational Behavior for Medical Informatics**

This online course is an introduction to the management of employees in health care organizations. Students will gain a working knowledge of how to manage personal, interpersonal, and group processes by having the interpersonal skills to assume responsibility for leading and promoting teamwork among diverse stakeholders. Students will learn to manage individual and group behaviors in improving organizational productivity and performance. Through experiential learning, students will learn to integrate home, work, and educational observations and experiences and to convert them into proactive practical applications for growth and renewal. (3 credits)

#### **MI 7000—Biomedical Informatics Project/Practicum**

This is a required course for all M.S.B.I. students. The project/practicum allows the student to select an area of interest in which to apply the theories, concepts, knowledge, and skills gained during the didactic courses in a real-world setting. The student will work under the supervision of a site-based preceptor and an NSU-based faculty adviser. The student is expected to acquire skills and experiences in the application of basic biomedical informatics concepts and specialty knowledge to the solution of health information technology (HIT) problems. Students will be actively involved in the development, implementation, or evaluation of an informatics-based

application or project. A specific set of goals and measurable learning outcomes will be determined by the student, the site preceptor, and the NSU-based faculty adviser. These goals must be approved by the course director. The student's area of interest would be determined at an earlier point in the program or by the needs of the precepting organization. A comprehensive written report and an oral presentation will be required upon completion of the project/practicum. (4 credits)

Please refer to [www.scis.nova.edu/Masters/Director/course\\_descriptions/mmis.html](http://www.scis.nova.edu/Masters/Director/course_descriptions/mmis.html) for additional listings of courses offered by the Graduate School of Computer and Information Sciences in the M.S. in Management Information Systems Program.

### **Elective Courses**

#### **MI 5121—Information Systems Project Management in Health Care**

This course introduces the fundamental principles of project management from an information technology perspective, but with an emphasis on health care industry applications. Fundamental aspects of project management are covered, including project integration and the management of scope, time, cost, quality, human resources, communications, and risks. Discussion also includes project management software as well as organizational management aspects, such as project planning, team building, organizational structure, and control mechanisms. (3 credits)

### **MI 5180—Human-Computer Interaction in Health Care Settings**

The dynamics of human-computer interaction (HCI) directly impacts health care. This course will introduce the student to usable interfaces and the study of social consequences associated with the changing environment due to technology innovation. (3 credits)

### **MI 5203—Medical Informatics Applications to Health Services**

This online course builds on the knowledge acquired through MI 5200 Survey of Medical Informatics. This course explores the practical aspects of health information technology and seeks to apply the information learned in previous courses to the health care arena. Students will learn to integrate the needs of health care institutions and providers with the use of information technology applications through practical task assignments. Topics will include the role of IT in patient safety, computer security, use, health outcomes, and HIPAA; public health informatics; telemedicine; budget consideration in HIT; economic impact; and access to care, as well as the current state of patient-focused HIT, federal governmental HIT involvement, DOQ-IT initiative, provider needs, and EMR system evaluation for providers. Topics will be discussed from a practical standpoint, from the health care provider's perspective. (3 credits)

### **MI 6400—Outcome Research**

This course provides an intermediate-level review of basic research methodology, concepts, and principles common in public health and epidemiological studies. Issues related

to the design, development, and realization of public health studies—including sampling, surveying data collection, and management—as well as the interpretation and reporting of findings are discussed. (3 credits)

### **MI 6401—Biostatistics**

This course focuses on the principles and reasoning underlying modern biostatistics and on inferential techniques commonly used in public health research. At course completion, students will be able to apply basic inferential methods in research endeavors and improve their abilities to understand the data analysis of health-related research articles. (3 credits)

### **MI 6403—Epidemiology**

Examines basic principles and methods of modern epidemiology used to assess disease causation and distribution. Students develop conceptual and analytical skills to measure association and risk, conduct epidemiological surveillance, evaluate screening and diagnostic tests, and investigate disease outbreaks and epidemics. (3 credits)

### **MI 6404—Special Topics in Health Informatics**

MI 6404 is an elective course designed to be student/self-directed. In consultation with the chosen adviser/mentor and the course director, the student will determine a focused topic of quasi-independent study, research, or other appropriate learning activity. A final paper or other appropriate document(s) will serve as documentation of having met the mutually agreed upon objectives. (3 credits)

### **MI 6405—Public Health Informatics**

Public Health Informatics is the systematic application of information, computer science, and technology to public health practice, research, and learning. This course focuses on developing the knowledge and skills of systemic application of information, computer science, and technology to public health practice. Students will acquire a basic understanding of informatics in public health practice, and be able to apply the skills of some informatics tools in public health practices. (3 credits)

### **MI 6406—Information Technology Applications in Management Decisions**

Students enter MIS courses with varied levels of knowledge and understanding. Effective managers know what information systems are, how they affect the organization and its employees, and how IT can make businesses more competitive. This course will help students learn to design and develop computer applications that use common end-user software packages to solve problems facing managers today. (3 credits)

### **MI 6407—Grant Writing**

The purpose of this course is to introduce students to grant development and preparation so that they can participate in the process of obtaining public or private funds to support research, education, and/or service projects. (3 credits)

### **MI 6408—Health Policy, Planning, and Management**

This course discusses principles and logic involved in health policy, plan-

ning, and management; addresses historical, political, and environmental contexts; and incorporates them into population research. (3 credits)

### **MI 6409—Health Service Planning and Evaluation**

This course is an in-depth review of basic planning and evaluation techniques for the implementation of community health care programs. The course is designed, and will be taught, employing comparative methodology. The material will be taught using multiple international examples and experiences. The course covers the interdependence of policy, planning, and management. It will consist of policy analysis techniques as well as the conceptual framework for the planning and management of health care programs. The course also reviews essential methods for effective planning and evaluation, considering the economic, political, epidemiological, demographic, and other components that contribute to the assessment of health needs and resource allocation.

**Prerequisites:** PUH 5430, PUH 5512 (3 credits)

### **MI 6410—Consumer Health Informatics**

This course provides an introduction to, and overview of, consumer health informatics and Web 2.0 applications used in health care. It explores the development of consumers as ePatients and tools such as patient health records (PHRs), as well as the fluid nature of Web 2.0 in medicine. Upon course completion, students will be able to demonstrate the roles of Web 2.0 applications for consumers and health care professionals, navigate social media and networking applications, utilize

emerging tools such as RSS readers and podcasts to access and manage information, determine beneficial uses of the collaborative toolbox, and delineate health care risks inherent to consumers with Web 2.0. Students will learn from a combination of lectures and a hands-on approach of interacting directly with the tools and technologies discussed. (3 credits)

**MI 6411—  
Health Information Technology  
Acquisition and Assessment**

This course uses a case-study/team-learning format to immerse the students in the technical, business, cultural, and organizational dynamics typically encountered during HIT systems selection and contract negotiation processes. Real-world case studies—replete with dynamic political, financial, and technical roadblocks and opportunities—will be used to introduce the student to skills required to make the best cultural decisions and negotiate a viable contract. (3 credits)

**MI 6412—Leadership in Health  
Information Technology**

This course provides the conceptual and technical skills needed in leading health information technology. It is designed to create a deep understanding of leadership at the cognitive and action levels to enable health information leaders to optimize decision making in the workplace. Students review remarkable leaders, organizations, and teams in order to hone their own observation, sense-making, and innovating skills in a health information setting. This leadership course reviews and builds upon the basic knowledge of leadership provided in the organizational behavior course by

expanding the scope and depth of the student's knowledge of leadership theories and conflict management techniques, and by developing the student's self-knowledge of his or her preferred leadership style.

The goal of this course is to provide a foundation of motivation and understanding for leadership development by offering theoretical background, practical information, and an opportunity for self-assessment that will permit students to begin or continue the career-long development of their leadership talent in medical informatics. The course encourages reflection, personal exploration, and skill enhancements to the end that each student becomes more effective at accomplishing his or her personal and professional goals. (3 credits)

Please refer to other college/school catalogs for descriptions of other offered elective courses.

## College of Osteopathic Medicine Departments

### ANATOMY

Chair and Professor: **G. R. Conover** | Professors: **L. Dribin, A. Mariassy, K. Tu, R. K. Yip** | Associate Professors: **N. Lufti, S. Purvis** | Assistant Professor: **P. Greenman** | Instructor: **D. McNally**

### BIOCHEMISTRY

Chair and Professor: **R. E. Block** | Professors: **E. E. Groseclose, K. V. Venkatachalam** | Assistant Professor: **W. G. Campbell**

### MICROBIOLOGY

Chair and Professor: **H. Hada** | Professors: **D. Burris, H. E. Laubach** | Associate Professor: **K. Davis** | Assistant Professor: **B. May**

### PATHOLOGY

Chair and Professor: **W. Gibson** | Professors: **K. Khin, M. A. Khin** | Assistant Professors: **B. C. Jones, A. B. Trif** | Professor Emeritus: **D. C. Bergman**

### PHARMACOLOGY

Chair and Associate Professor: **C. E. Reigel, Jr.** | Professor: **M. Parker** | Associate Professors: **T. Panavelil, C. Powell**

### PHYSIOLOGY

Chair and Professor: **W. Schreier** | Professors: **H. Mayrovitz, S. Taraskevich** | Associate Professor: **Y. Zagvazdin** | Assistant Professors: **L. Lyons, B. Ramos**

### PSYCHIATRY AND BEHAVIORAL MEDICINE

Professors: **S. Cohen, R. Ownby** | Associate Professor: **D. Shaw** | Assistant Professor: **R. Jacobs**

### DIVISION OF MEDICAL HUMANITIES

Chair and Professor: **S. Cohen**

### FAMILY MEDICINE

Chair and Assistant Professor: **B. Arcos** | Professors: **H. Neer, R. Oller, A. Silvagni** | Associate Professors: **J. DeGaetano, M. Howell, S. Simpson, P. Anderson-Worts** | Assistant Professors: **T. Barber, R. Cherner, P. Cohen, R. Ferrero III, V. Jaffe, S. Ledbetter, J. Schaffer, S. Scott-Holman, C. Todd, A. Whitehead, M. Wilkinson** | Instructors: **J. Ross, N. Schoepp**

### DIVISION OF COMMUNITY MEDICINE

Chair and Professor: **S. Zucker** | Professors: **R. Foster, F. Lippman** | Assistant Professor: **D. Steinkohl**

## GERIATRICS

Chair and Associate Professor: **N. Pandya** | Assistant Professor: **D. Sanders-Cepeda** | Clinical Assistant Professors: **H. Masri, K. Rivas**

## PREVENTIVE MEDICINE

Chair and Clinical Assistant Professor: **J. Pellosie** | Professors: **G. S. Bowen, M. Fernandez** | Assistant Professor: **R. Jacobs**

## RURAL MEDICINE

Chair and Professor: **J. Howell**

## DIVISION OF CORRECTIONAL MEDICINE

Chair and Professor: **D. Thomas**

## OSTEOPATHIC PRINCIPLES AND PRACTICE

Chair and Associate Professor: **M. Sandhouse** | Professor: **E. Wallace** | Associate Professor: **D. Newman**

## DEPARTMENT OF NEURO-MUSCULOSKELETAL MEDICINE

Chair and Associate Professor: **D. Boesler** | Associate Professor: **Y. Hussain-Qureshi** | Professors Emeritus: **M. Greenhouse, A. Snyder**

## DIVISION OF PHYSICAL MEDICINE AND REHABILITATION

Chair and Clinical Assistant Professor: **J. Diaz**

## DEPARTMENT OF SPORTS MEDICINE

Chair and Assistant Professor: **A. Kusienski** | Associate Professor: **E. Shamus** | Assistant Professors: **H. McCarthy, S. Russo**

## INTERNAL MEDICINE

Chair and Associate Professor: **S. Snyder** | Assistant Professors: **A. Bhasin, N. Bray, M. Echols, J. Hamstra R. Hasty, G. Hill, H. Lane, G. Merlino, A. Sciberras**

## DIVISION OF CARDIO-VASCULAR MEDICINE

Chair and Professor: **A. A. Greber** | Clinical Professors: **M. Chizner, R. Kaufman**

## DIVISION OF DERMATOLOGY

Chair and Clinical Professor and Residency Program Director: **S. Skopit** | Assistant Professor: **T. Favreau**

## DIVISION OF ENDOCRINOLOGY

Chair and Associate Professor: **N. Pandya** | Clinical Assistant Professor: **F. Diaz**

**DIVISION OF  
GASTROENTEROLOGY**

Chair: **TBA**

**DIVISION OF HEMATOLOGY/  
ONCOLOGY**

Chair: **TBA** | Clinical Associate  
Professor: **B. Lenes**

**DIVISION OF  
INFECTIOUS DISEASES**

Chair: **TBA**

**DIVISION OF NEPHROLOGY**

Chair and Associate Professor:  
**S. Snyder** | Clinical Assistant Profes-  
sor: **J. Waterman**

**DIVISION OF NEUROLOGY**

Chair and Clinical Assistant Professor:  
**H. M. Todd** | Professor: **L. Jacob-  
son** | Clinical Assistant Professors: **T.  
Hammond, J. Harris, M. Swerdloff**

**DIVISION OF  
PULMONARY MEDICINE**

Chair and Clinical Professor: **E.  
Bolton, Jr.** | Clinical Assistant Profes-  
sor: **J. Giaimo**

**OBSTETRICS AND  
GYNECOLOGY**

Chair and Associate Professor: **K.  
Johnson** | Assistant Professor: **R.  
Alexis**

**PEDIATRICS**

Chair and Professor: **E. Packer**  
| Professors: **C. Blavo, B.  
Peters** | Clinical Professor:  
**D. Mulligan-Smith** | Associate  
Professor: **H. DeGaetano** | Assistant  
Professors: **R. Faillace, M. Gabay**

**SURGERY**

Chair and Professor: **D. Thomas** |  
Professor Emeritus: **S. Kaye**

**DIVISION OF  
ANESTHESIOLOGY**

Chair and Clinical Associate Profes-  
sor: **R. H. Sculthorpe**

**DIVISION OF  
CORRECTIONAL MEDICINE**

Chair and Professor: **D. Thomas**  
| Clinical Assistant Professors: **D.  
Rectine, P. Roberts**

**DIVISION OF  
GENERAL SURGERY**

Chair and Clinical Associate Profes-  
sor: **E. Wiener**

**DIVISION OF  
OPHTHALMOLOGY**

Chair and Clinical Professor:  
**W. Bizer**



## DIVISION OF ORTHOPEDIC SURGERY

Chair and Clinical Professor: **J. Rush**  
| Clinical Associate Professor: **M. Rech**

## DIVISION OF OTORHINOLARYNGOLOGY

Chair and Clinical Associate Professor:  
**R. Contrucci**

## DIVISION OF RADIOLOGY

Chair: **TBA** | Clinical Assistant  
Professor: **J. Ditchek**

## DIVISION OF UROLOGY

Chair: **TBA** | Clinical Professor:  
**G. Ghoniem**

## MASTER OF PUBLIC HEALTH PROGRAM

Director and Professor: **C. Blavo** |  
Professors: **G. Bowen, M. Fernandez,**  
**R. Foster, J. Howell, H. Laubach, L.**  
**Levy, J. Lou, C. Rokusek** | Associ-  
ate Professors: **J. Dodds, J. Fleisher,**  
**P. Hardigan, K. Johnson, G. Suci** |  
Assistant Professors: **D. Celestine, A.**  
**Perez, D. Steinkonl, X. Yu**

## MASTER OF SCIENCE IN BIOMEDICAL INFORMATICS PROGRAM

Director and Professor: **J. Lou** | Profes-  
sors: **R. Foster, L. Levy, R. Ownby** |  
Associate Professor: **D. Shaw**



# **College of Pharmacy**



# College of Pharmacy



**Andrés Malavé,**  
M.S., Ph.D.  
Dean

## Mission Statement

To educate professionals who will address the pharmacy-related needs of society.

## Vision Statement

Through our programs of innovative teaching, service, research, and scholarship, we will achieve the distinction of being a premier college of pharmacy.

## Values

- entrepreneurship
- excellence
- innovation
- integrity
- professionalism
- respect for diversity
- service
- teamwork

## Administration

**Andrés Malavé,** M.S., Ph.D.  
Dean

**Lisa Deziel-Evans,**  
B.S., Pharm.D., Ph.D.  
Executive Associate Dean, Professional Program

**Hugh M. McLean,**  
B.S., M.S., Pharm.D., Ph.D.  
Associate Dean, Research and Graduate Education

**Appu Rathinavelu,** B.S., M.S., Ph.D.  
Associate Dean, Institutional Planning and Development

**Carsten Evans,**  
B.S., M.S., Ph.D.  
Assistant Dean, Continuing Education and Professional Affairs

**Betty J. Harris,** B.S., Pharm.D.  
Assistant Dean, Experiential Education and Student Services

**Manuel Carvajal,**  
B.A., M.S.A, Ph.D.  
Chair, Sociobehavioral and Administrative Pharmacy

**William Wolowich,** B.Sc. (Pharm), Pharm.D.  
Chair, Pharmacy Practice

**Michelle Clark,**  
B.A., M.S., Ph.D.  
Chair, Pharmaceutical Sciences

**Mark L. Glover,** B.S., Pharm.D.  
Director, Palm Beach Program

**John Reyes,** B.S.  
Administrative Director,  
Puerto Rico Program

**Goar Alvarez,** B.S., Pharm.D.  
Director, Pharmacy Services

**Leanne Lai,** B.S., Ph.D.  
Director, International Programs

**William D. Hardigan,**  
B.S., M.S., Ph.D.  
Dean Emeritus

## Pharmacy

With the nation struggling to deliver high quality, affordable health care, there has come a greater appreciation of the importance of pharmacists as members of today's health care team. The pharmacist's role has expanded rapidly from drug compounding and distribution to a more patient-oriented role. The College of Pharmacy is educating its students in practices vital to meeting the challenges facing the profession and important to improving health and reducing health care costs.

The College of Pharmacy admitted its first class in 1987 to become the first College of Pharmacy in South Florida. Since then, it has graduated more than 2,700 pharmacy professionals. The college offers the doctor of pharmacy (Pharm.D.) degree program and will begin offering a graduate Ph.D. program in 2010.

Pharmacists are experts on drugs and therapeutic goals, their biological action and uses, formulation, adverse effects, and potential for drug interactions. However, pharmacists are not only knowledgeable about drugs, they must also be people-oriented. They consider both the medication and the patient to ensure the patient has the right drug, in the right amount, for the right length of time, and with minimal adverse effects. The result is improved health care.

Most pharmacists practice in patient-oriented settings: in community pharmacies, hospitals, extended care facilities, or public health clinics. In addition, pharmacists are employed by the pharmaceutical industry in research and development, in manufacturing, or as medical service

representatives. They work in academic institutions, government, health maintenance organizations, and home health care programs.

It is because of these challenges and opportunities that pharmacy has assumed a wider role and become an increasingly rewarding profession involving patient counseling, compliance, and education. The shortage of pharmacists has become so critical that colleges of pharmacy would have to double their enrollments to meet the projected needs of the health care system.

## Accreditation

The Accreditation Council for Pharmacy Education, 20 North Clark Street, Suite 2500, Chicago, IL 60602-5109, (312) 664-3575, 800-533-3606; Fax (312) 664-4652, Web site: [www.acpe-accredit.org](http://www.acpe-accredit.org), has accredited the Doctor of Pharmacy Program of the College of Pharmacy, Nova Southeastern University. The College of Pharmacy is a member of the American Association of Colleges of Pharmacy.

## Facilities

The College of Pharmacy is headquartered on the third floor of the Health Professions Division Administration Building. Pharmacy practice and research laboratories are located on the third floor of the Library/Laboratories Building, near the Health Professions Division's research laboratories. Experiential sites are primarily located throughout Central and South Florida.

In the fall of 2000, the NSU College of Pharmacy opened a West Palm Beach program on RCA Boulevard

near I-95 and PGA Boulevard. In the fall of 2001, a full-time program on the campus of Pontificia Universidad Católica de Puerto Rico in Ponce, Puerto Rico, was opened. The only distinction between the Fort Lauderdale campus-based degree and the distance degree is geography. Each location has a program director, administrators, and faculty and staff members. Interactive video technology is used to provide lectures among the three sites simultaneously. This provides for live interaction between lecturer and students regardless of location. Identical handouts, tests, and texts are used. Communication through telephone, fax, online technologies, and email are available to students at all sites. All students have access to the Health Professions Division Library, computer labs, online learning resources, and the vast technological innovations provided by NSU, which has been a leader in distance education programs for many years.

The pharmaceutical care center and pharmacy are adjacent to the health clinic in Fort Lauderdale. This is a community pharmacy with disease management services for diabetes, hypertension, hyperlipidemia, osteoporosis, and anticoagulation. It also manages pharmacy services, including drug regimen review, consultation, and teaching. The College of Pharmacy's Drug Information Center meets a pressing demand among health care professionals for accurate, up-to-date information on medications, their adverse effects, incompatibilities, potential for interactions, and related legal issues.

## **Financial Aid**

The purpose of the Student Financial Assistance Program at Nova Southeastern University is to help as many qualified students as possible to complete their pharmacy education. Various loans, scholarships, and grants are available to qualified students to help ease the high cost of a health professions education. Approximately 90 percent of College of Pharmacy students receive some form of financial assistance. These financial assistance programs are described in a separate university publication: *A Guide to Student Financial Assistance*. Although most first-year pharmacy students will be classified as graduate students for financial aid purposes, students who matriculate with fewer than 90 semester hours and students in the dual-admission program will be classified as undergraduates for the first year in the College of Pharmacy.

## **Transfer Credits**

Requests for transfer credit must be submitted in writing to the executive associate dean. The request must include a copy of the transcript (containing the course title and final grade) and a course syllabus. Transfer credit will only be considered for courses taken at pharmacy schools accredited by ACPE or for those courses given prior approval by the executive associate dean. An official transcript from the institution attended must be provided before transfer credit will be awarded. All transfer credit requests must be received prior to August 1 of the first year of pharmacy school.

The dean's office will evaluate the courses and determine appropriate credits. A minimum of 16 credit

hours of didactic coursework and a minimum of five advanced practice experiences must be completed at Nova Southeastern University.

### **Class Cancellation Policy**

The university reserves the right to cancel any class. If a class is cancelled and a replacement is not offered, students will receive a full refund of tuition paid for the cancelled class. If the student registered for only one class, then other fees will be refunded as well.

## **Entry-Level Program Doctor of Pharmacy Degree**

### **Requirements for Admission**

The College of Pharmacy selects students based on pre-pharmacy academic performance, Pharmacy College Admission Test (PCAT) scores, personal interviews, written applications, and letters of evaluation.

### **Pre-Pharmacy Studies**

1. Prior to matriculation, College of Pharmacy applicants must complete a minimum of 62 semester hours of coursework at a regionally accredited college or university, including the following required courses:

- anatomy and physiology—3 semester hours
- general biology—3 semester hours
- general biology or anatomy and physiology, including laboratory—4 semester hours
- general chemistry, including laboratory—8 semester hours
- organic chemistry, including laboratory—8 semester hours

- English—6 semester hours
- calculus (for science majors)—3 semester hours
- speech—3 semester hours
- statistics—3 semester hours (Course must be taken in the math department in order to be considered.)
- macroeconomics—3 semester hours
- microeconomics—3 semester hours
- humanities/social/behavioral sciences—15 semester hours including
  - 3 semester hours of social/behavioral sciences
  - 3 semester hours of humanities
  - 9 semester hours—can be in either discipline (humanities or social/behavioral sciences)

**Note:** These are minimum academic requirements for admission. Students are encouraged to take additional courses such as molecular or cellular biology, genetics, biochemistry, microbiology, physiology, and physical chemistry.

2. Students must have a GPA of 2.75 or higher on a 4.0 scale. To ensure a well-rounded background for professional studies and adequate preparation in mathematics and sciences, the college requires students to earn a grade of 2.0 or better in each required pre-pharmacy course and a minimum grade of 2.0 in all biology, chemistry, and mathematics courses. Preference will be given to students with a cumulative grade point average of 3.0 or higher. However, the dean is empowered to evaluate the total qualifications of every student and to modify requirements in unusual circumstances.

3. Applicants are required to submit official scores from the Pharmacy College Admission Test (PCAT). A national, standardized examination, the PCAT is designed to measure verbal and quantitative abilities, reading comprehension, and knowledge of biology and chemistry. PCAT scores must be dated within five years of the time of interview. Applicants should take the PCAT no later than October or January prior to the expected date of matriculation.

Candidates should schedule pre-pharmacy coursework so they complete biology and some chemistry courses before taking the PCAT. The half-day test is offered in June, August, October, and January at locations throughout the United States and Canada. Application brochures for the PCAT may be available at your college. You can also receive the brochure from the Office of Admissions, NSU College of Pharmacy, by visiting [www.pcatweb.info](http://www.pcatweb.info), or by forwarding a written request to

Pharmacy College Admission Test  
The Psychological Corporation  
555 Academic Court  
San Antonio, Texas 78204  
800-622-3231

### Foreign Coursework

Undergraduate coursework taken at a foreign institution must be evaluated for U.S. institution equivalence. Foreign coursework must be evaluated by one of the three services listed below. When possible, an equivalent GPA should be requested as part of evaluation.

- World Education Services  
P.O. Box 745  
Old Chelsea Station  
New York, New York 10113-0745

(212) 966-6311  
[www.wes.org](http://www.wes.org)

- Josef Silny & Associates  
7101 SW 102nd Avenue  
Miami, Florida 33173  
(305) 273-1616  
(305) 273-1338 fax  
[www.jsilny.com](http://www.jsilny.com)  
[info@jsilny.com](mailto:info@jsilny.com)

- Educational Credential Evaluators  
P.O. Box 514070  
Milwaukee, Wisconsin 53203-3470  
(414) 289-3400  
[www.ece.org](http://www.ece.org)

It is the applicant's responsibility to have foreign coursework evaluated, and an official course-by-course evaluation must be sent to the Office of Admissions directly from the evaluating service.

## Application Procedure

### Primary Application Process

The college participates in the Pharmacy College Application Service (PharmCAS) for the receipt and processing of all applications. PharmCAS takes no part in the selection of students.

Applicants may submit applications electronically through PharmCAS Online, an interactive Web-based application that can be accessed through [www.PharmCAS.org](http://www.PharmCAS.org). Applicants choosing to submit a paper application may contact PharmCAS directly for an application packet at

PharmCAS  
19 Main Street  
Watertown, Massachusetts 02472  
(617) 612-2050

Listed below are the steps necessary to complete the primary application process.



The applicant should submit the following materials to PharmCAS:

- a completed PharmCAS application
- an official transcript from the registrars of all colleges and universities attended (This must be mailed directly to PharmCAS by the college or university.)
- PCAT score(s) within the past five years

The PharmCAS application process takes four to six weeks.

The deadline for submitting a PharmCAS application for NSU-COP is January 1.

Applicants for the Ponce, Puerto Rico, site must contact the Office of Student Affairs in Ponce, Puerto Rico, for application information by calling (787) 841-2000, ext. 2431, or via email to [prphss@nova.edu](mailto:prphss@nova.edu).

### Secondary Application Process

Nova Southeastern University requires the completion of a secondary application. Upon receipt of the PharmCAS application, NSU-COP will electronically forward a secondary application.

Listed below are the steps necessary to complete the secondary application process.

The applicant should submit the following materials to Nova Southeastern University:

- a completed secondary application
- a nonrefundable application fee of \$50
- a letter of evaluation from the pre-professional committee, (if such a committee does not exist, letters of evaluation from two science profes-

sors and a liberal arts professor are necessary)

- a letter of evaluation from a pharmacist is highly recommended and may substitute for a letter from a professor

The deadline date for submitting the secondary application for NSU-COP is March 1.

All admission materials sent to Nova Southeastern University should be sent to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Pharmacy  
Office of Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905

### Interview Process

Upon receipt of the completed application and the required credentials, the most-qualified applicants will be selected for an interview. Those selected will be notified in writing of the time and place. All applicants who are admitted by the college must be interviewed, but an invitation to appear for an interview should not be construed as evidence of acceptance.

### Notice of Acceptance

Notice of acceptance or other action by the committee on admissions will be on a “rolling” or periodic schedule.

Early completion of the application process is in the best interest of the applicant.

### Transcripts

After acceptance, final and official transcripts from all colleges and universities attended, and/or final and official documents must be received

within 90 calendar days from the start of the term. If these final and official transcripts and/or documents are not received by that time, the student will not be allowed to continue class attendance. In addition, financial aid will not be disbursed to a student until he or she provides all the necessary documents required to be fully admitted as a regular student.

### **Program Requirements**

All students are required to have ongoing access to a computer and an active account with an Internet service provider. Nova Southeastern University will provide access to email, online databases, and library resources.

Students must also provide their own transportation to experiential sites. Puerto Rico students should anticipate completion of experiential education at sites outside of the commonwealth of Puerto Rico. During the final month, all students—including those studying in Puerto Rico and Palm Beach—return to their respective sites for updates on new and changing drug therapy, presentations, and board exam preparation.

### **Tuition and Fees**

- Tuition—Fort Lauderdale and Palm Beach, Florida

Tuition for 2010–2011 (subject to change by the board of trustees without notice) is \$23,898 for Florida residents and \$28,265 for out-of-state students.

Eligible students must request in-state tuition on the application. For tuition purposes, students' Florida residency status (in-state or out-of-state) will be determined at

initial matriculation and will remain the same throughout the entire enrollment of the student at NSU. Accordingly, tuition will not be adjusted as a result of any change in residency status after initial enrollment registration.

- Tuition—Ponce, Puerto Rico  
Tuition for 2010–2011 (subject to change by the board of trustees without notice) is \$23,898 (U.S.) for Puerto Rico residents and \$28,265 (U.S.) for nonresident students.
- A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.
- Acceptance fee is \$500.  
This fee is required to reserve the accepted applicant's place in the entering first-year class. This advance payment will be deducted from the tuition payment due on registration day, but is not refundable in the event of a withdrawal. It is payable within three weeks of an applicant's acceptance.
- Preregistration fee is \$500.  
This is due March 15, under the same terms as the acceptance fee.

The first semester's tuition and fees, less the \$1,000 previously paid, are due on or before registration day. Tuition for each subsequent semester is due on or before the appropriate registration day. Students will not be permitted to register until their financial obligations have been met. The financial ability of applicants to complete their training at the college is important because of the limited number of positions available in each class. Applicants should have specific plans for financing

four years of professional education. This should include tuition, living expenses, books, equipment, and miscellaneous expenses.

### **Undergraduate/Pharm.D. Dual Admission Program**

Nova Southeastern University Health Professions Division has established a dual admission program with the Nova Southeastern University Farquhar College of Arts and Sciences, Pontificia Universidad Catolica de Puerto Rico, and International College in Naples, Florida, for a select number of highly motivated, qualified students interested in pursuing both an undergraduate education and professional studies in pharmacy. This allows students to receive their undergraduate bachelor of science degree and a doctor of pharmacy degree in a six- to eight-year period.

Candidates must maintain a specified GPA and achieve acceptable scores on the Pharmacy College Admissions Test (PCAT). Students will spend two to three years in the undergraduate school and then will be awarded a B.S. degree upon successful completion of the second/third year at Nova Southeastern University College of Pharmacy. Students will receive the doctor of pharmacy degree after successfully completing the four-year Pharm.D. program at Nova Southeastern University College of Pharmacy.

For information and requirements, contact one of the following:

- Office of Admissions  
Farquhar College of  
Arts and Sciences  
Nova Southeastern University

3301 College Avenue  
Fort Lauderdale, Florida  
33314-7796

- Office of Admissions  
Pontificia Universidad Catolica  
de Puerto Rico  
2250 Avenida Las Americas  
Suite 584  
Ponce, Puerto Rico 00717-0777
- Office of Admissions  
International College  
2655 Northbrooke Drive  
Naples, Florida 34119

### **Internship**

An internship is a requirement for licensure. The internship must be completed within the guidelines of the Florida Board of Pharmacy as set forth in the Rule, Chapter 64B16-26.400(4), or by the Board of Pharmacy in the state in which the student plans to fulfill the requirements for internship. A Social Security number is necessary in order to obtain an intern license from the state of Florida. It is the responsibility of any student who does not have U.S. citizenship or permanent resident status to ensure that his or her visa status allows for the issue of a Social Security number. An intern license is a requirement for placement on practice experiences. Without practice experiences, a student cannot complete the curriculum or the requirements of the Pharm.D. degree program. Any student who has concerns regarding visa or Social Security status should contact the Office of International Students by phone at (954) 262-7241 or 800-541-6682, extension 27241, or by email at [intl@nsu.nova.edu](mailto:intl@nsu.nova.edu). The college's director of experiential programs provides assistance and guidance to students regarding internships.

## Course of Study

The doctor of pharmacy degree is awarded after successful completion of four years of professional study in the College of Pharmacy. The curriculum stresses innovative teaching delivery and assessment methods. Students are provided an initial orientation during which they are exposed to library and online resources, professionalism, and academic expectations.

The curriculum is designed so courses integrate information and build on one another in order to provide students with the knowledge and skills necessary to be successful in the profession. The didactic component of the curriculum builds a foundation in the medical and pharmaceutical sciences. Traditional courses in anatomy and physiology, biochemistry, and microbiology are provided in order to develop a solid foundation. Pharmaceutical sciences courses including Pharmaceutics, Pharmacokinetics, and Nonprescription Therapies are designed to provide students with a strong understanding of the principles of drug therapy. The innovative curriculum also includes the integration of medicinal chemistry and pharmacology into one course titled Pharmacodynamics, which runs four semesters. Insight into the business, human relations, communication, marketing, and legal aspects of pharmacy and the health care system are also provided.

The third year of the curriculum includes courses that focus on application of material learned during the first two years. Therapeutics is integrated with pathophysiology to address the use of drugs in the disease process and physical assessment provides the students with hands-on opportunities

to develop skills essential to monitoring drug therapy. Students hone their analytical skills with courses in research design and statistics, pharmacoepidemiology, pharmacoconomics, and drug literature evaluation. All students must also complete a minimum of 6 semester hours of elective credit.

Unique aspects of the first three years of the curriculum include an introductory pharmacy practice experience program and an integrated laboratory. Opportunities for the students to experience pharmacy practice first hand are provided early in the curriculum. In the first year, students spend four hours per week in a service learning experience. In the second year of the curriculum, students spend four hours per week in a community pharmacy setting. Practice experiences in the third year involve eight hours per week in hospital and pharmacy service settings. Patient Care Management Lab is initiated during the third year. This provides an opportunity for students to integrate information learned in all courses of the curriculum in order to facilitate application of the material in real-life practice settings.

During the fourth year, the experiential component includes nine 160-hour experiences: four in core practice areas and five elective experiences in specialty areas. At this point of the curriculum, it is expected that the students practice drug therapy monitoring with more independence. In the last month of the curriculum, all students will return to campus for updates on new and changing drug therapy, for presentations, and for board exam preparation.

Note: The advanced practice experiences are full-time commitments for the students (a minimum of 40 hours per week). Students are assigned to approved off-campus facilities and must arrange their own transportation. Experiences may be taken in any sequence, however students may not enroll in advanced practice experiences until all didactic work has been satisfactorily completed. There are currently few advanced pharmacy practice sites in Puerto Rico for the entry-level students. Students must expect to use Florida sites for most experiences. The curriculum is designed so that knowledge gained in one semester becomes the foundation for material covered in subsequent semesters. Therefore, if students do not successfully complete the coursework specified for one semester, it will impede their ability to take courses in the future semesters. (Students have 60 days after the end of the semester to resolve any grade disputes; after that, the instructor may discard all materials from the semester.) This may lead to a delay in graduation. The program must be completed within seven years from the date of matriculation.

## Study Abroad

Opportunities for study abroad programs are provided during the summer.

## Graduation Requirements

To receive a degree, a student must fulfill the following requirements:

- be of good moral character
- pass all required courses

- complete a minimum of 139 semester hours of coursework in the College of Pharmacy within seven years
- satisfactorily complete the assigned curriculum requirements for the degree, including all assignments, with a GPA of 2.0 on a four-point scale or a numerical average of 70 percent or above
- satisfactorily complete the capstone examination
- satisfactorily meet all financial and library obligations
- complete a minimum of 16 credit hours of didactic coursework in addition to five advanced experiences if transferring
- submit to the registrar's office an application for degree/diploma by March 15. Applications received after March 15 will not be considered for that year's commencement, unless approved by the dean
- must complete all professional development capstone requirements
- must attend the rehearsal and commencement program in person
- receive approval by a College of Pharmacy faculty vote

## Entry-Level Curriculum Outline

FIRST YEAR—Fall Semester		Credits
PHA 4000	Medical Terminology	0
BCH 5200	Biochemistry	4
PHA 4100	Pharmaceutics I	3
PHA 4120	Pharmacy Calculations	1
PHA 4200	Pharmacodynamics I	3
PHA 4300	Pharmacy and the Health Care System	2
PHA 4400	Dean's Hour I	0
PHA 4580	Service Learning	0
PHA 5211	Pharmacy Anatomy and Physiology I	4
<b>Total:</b>		<b>17</b>

FIRST YEAR—Winter Semester		Credits
PHA 4110	Pharmaceutics II	3
PHA 4110L	Pharmaceutics II Lab	0
PHA 4130	Pharmacokinetics	4
PHA 4210	Pharmacodynamics II	3
PHA 4310	Pharmaceutical Marketing	2
PHA 4410	Dean's Hour II	0
PHA 4550	Drug Information Resources	1
PHA 4580	Service Learning (continued from first semester)	2
PHA 5221	Pharmacy Anatomy and Physiology II	4
<b>Total:</b>		<b>19</b>

SECOND YEAR—Fall Semester		Credits
MIC 5200	Microbiology	3
PHA 5100	Clinical Pharmacokinetics	3
PHA 5220	Pharmacodynamics III	5
PHA 5300	Social and Behavioral Pharmacy	2
PHA 5380	Pharmacy Law	2
PHA 5580	IPPE: Community	0
<b>Total:</b>		<b>15</b>

SECOND YEAR—Winter Semester		Credits
PHA 5150	Nonprescription Therapies	3
PHA 5230	Pharmacodynamics IV	4
PHA 5330	Communication Skills	2
PHA 5580	IPPE: Community (continued from first semester)	3
PHA 5610	Therapeutics/Pathophysiology I	5
<b>Total:</b>		<b>17</b>

THIRD YEAR—Fall Semester		Credits
PHA 6300	Research Design and Statistics	3
PHA 6440	Pharmacy Management	3
PHA 6560	Physical Assessment*	2
PHA 6580	IPPE: Health System	2
PHA 6620	Therapeutics/Pathophysiology II	5
PHA 6710	Patient Care Management I	2
PHA 6710L	Patient Care Management I Lab	0
	Suggested Electives	2
<b>Total:</b>		<b>19</b>

THIRD YEAR—Winter Semester		Credits
PHA 6410	Pharmacoepidemiology and Pharmacoeconomics	3
PHA 6610	Drug Literature Evaluation	2
PHA 6630	Therapeutics/Pathophysiology III	4
PHA 6680	IPPE: Pharmacy Service	2
PHA 6720	Patient Care Management II	1
PHA 6720L	Patient Care Management II Lab	0
	Suggested Electives	4
<b>Total:</b>		<b>16</b>

FOURTH YEAR—Summer/Fall/Winter Semesters		Credits
PHA 7610	APPE: Elective I	4
PHA 7620	APPE: Acute Care Medicine	4
PHA 7630	APPE: Elective II	4
PHA 7640	APPE: Ambulatory Medicine	4
PHA 7650	APPE: Elective III	4
PHA 7660	APPE: Select Community	4
PHA 7670	APPE: Elective IV	4
PHA 7680	APPE: Select Hospital	4
PHA 7690	APPE: Elective V	4
PHA 7801	Professional Development Capstone I	0
PHA 7802	Professional Development Capstone II	0
PHA 7803	Professional Development Capstone III	0
<b>Total:</b>		<b>36</b>

The curriculum is frequently being revised and modified to meet the demands of the profession. These courses are representative of the overall requirements of the program at the time of publication.

\* PHA 6560 is taught as an institute, schedule to be announced.

## **International Pharmacy Graduates Doctor of Pharmacy Degree**

In an effort to meet the growing demands of the pharmacy profession, the Nova Southeastern University College of Pharmacy provides an opportunity for international pharmacy graduates to enter the Pharm.D. degree program with advanced standing. Upon completion of the degree program, students are eligible to take the North American Pharmacy Licensing Examination (NAPLEX). This opportunity is designed exclusively for graduates of pharmacy degree programs outside of the United States jurisdiction, allowing them to build upon their pharmacy education and prepare them for clinical pharmacy practice.

The International Pharmacy Graduate curriculum educates students to achieve the same outcomes as the Entry-level Pharm.D. Degree Program. Courses integrate information and build on one another to provide students with the knowledge and skills necessary to be successful in the profession. Pharmacodynamics, Pharmacokinetics, and Nonprescription Therapies courses provide a strong understanding of the principles of drug therapy. The business, human relation, communication, marketing, and legal aspects of pharmacy and the health care system are also studied. Courses focus on application of material learned, the use of drugs in the disease process, and developing skills essential to monitoring drug therapy. Students hone their analytical skills with courses in Research Design and Statistics, Pharmacoepidemiology, and Pharmacoeconomics and Drug Literature Evaluation.

Practice experiences in community, hospital, and other traditional pharmacy settings facilitate real-life application of the material and provide opportunities to integrate information learned. Full-time practice experiences facilitate application of drug therapy monitoring with more independence. International pharmacists applying for the entry-level program may be awarded advanced standing based on their previous coursework. Advanced standing and the actual degree curriculum will vary based on the matriculant's previous pharmacy coursework. The curriculum provided is representative of a typical international pharmacist entering the entry-level program.

The curriculum stresses innovative delivery and assessment methods. Courses will be on campus and will be taught by interactive video; the college's experiential sites will be used extensively. All lectures, handouts, reading materials, and exams will be in English.

### **Admissions Requirements**

The College of Pharmacy selects students based on previous academic performance, TOEFL scores (if applicable), GRE or PCAT scores, written applications, and letters of evaluation.

Prior to matriculation, College of Pharmacy applicants must complete and receive a bachelor of science degree in pharmacy from a program accredited by the country of residence. Applicants may be required to complete some pre-pharmacy coursework from the College of Pharmacy.

The Test of English as a Foreign Language (TOEFL) is required of all applicants whose native language is



not English. The TOEFL, administered worldwide, measures the ability of non-native speakers to understand and use North American English. Preference will be given to students with scores of at least 213 on the computer-based exam or 79–80 on the Internet-based exam. TOEFL scores must be no more than two years old at the time of application.

You can receive the TOEFL brochure from the Office of Admissions, by visiting TOEFL's Web site ([www.toefl.org](http://www.toefl.org)), or by forwarding a written request to

TOEFL/TSE Services  
P.O. Box 6153  
Princeton, NJ 08541-6153  
(609) 771-7100

The following coursework is currently required for admission (semester credit hours equivalent to entry-level curriculum):

- Anatomy and Physiology (6 credits)
- Biochemistry (4 credits)
- Microbiology (3 credits)
- Pharmacology (two additional pharmacology review courses will be provided as part of the curriculum)
- Pharmaceuticals/pharmacokinetics (20 total credits)

Accepted students will be required to take a Pharmacy Calculations exam upon entry to ensure adequate background in Pharmacy Calculations. Remediation will be provided to those students who do not pass the exam.

### **Application Procedures**

Candidates for admission are responsible for submitting an application form, application fee, a complete set of official transcripts, official foreign coursework evaluation if applicable, official TOEFL scores if applicable, and letters of evaluation.

A completed international application form along with a \$50 (U.S.), nonrefundable application fee must be submitted to the Office of Admissions no later than February 1 of the year of anticipated entry. An application is available on our Web site ([www.nova.edu](http://www.nova.edu)) or by contacting the Office of Admissions.

In order to complete an application, a candidate must arrange to have his or her transcripts, test scores, and letters of evaluation forwarded to the Office of Admissions no later than March 1 of the year of anticipated entry.

### **Transcripts**

Official college transcripts from all undergraduate and graduate institutions attended in the United States or U.S. territories must be forwarded directly from the institutions to Nova Southeastern University, Enrollment Processing Services (EPS), College of Pharmacy, Office of Admissions, 3301 College Avenue, P.O. Box 299000, Fort Lauderdale, Florida 33329-9905.

It is the applicant's responsibility to ensure that arrangements are made for these to be sent. Final transcripts of all of the applicant's work must be forwarded to the Office of Admissions prior to matriculation. Photocopies and facsimiles will not be accepted. A transcript is required for each college or university even though transfer credit from one institution may appear on another institution's transcript.

### **Foreign Coursework**

Undergraduate coursework taken at a foreign institution must be evaluated for U.S. institution equivalence. Foreign coursework must be evaluated by one of the services listed below.

- World Education Services  
P.O. Box 745  
Old Chelsea Station

New York, New York 10113-0745  
(212) 966-6311  
[www.wes.org](http://www.wes.org)

· Josef Silny & Associates  
7101 SW 102nd Avenue  
Miami, Florida 33173  
(305) 273-1616  
(305) 273-1338 fax  
[www.jsilny.com](http://www.jsilny.com)  
[info@jsilny.com](mailto:info@jsilny.com)

· Educational Credential Evaluators  
P.O. Box 514070  
Milwaukee, Wisconsin 53203-3470  
(414) 289-3400  
[www.ece.org](http://www.ece.org)

It is the applicant's responsibility to have this coursework evaluated, and an official evaluation must be sent to Nova Southeastern University, Enrollment Processing Services (EPS), College of Pharmacy, Office of Admissions, 3301 College Avenue, P.O. Box 299000, Fort Lauderdale, Florida 33329-9905.

## TOEFL

Applicants must request to have official TOEFL scores sent if English is not their native language. Scores must come directly to the Office of Admissions, College of Pharmacy from the testing center—photocopies and facsimiles will not be accepted.

Extensive experience in an English-speaking environment may be evaluated for substitution of this requirement.

## Graduate Record Examination or Pharmacy College Admission Test

For 2011 entering class and later, it is required that applicants submit official scores from either the Graduate Record Examination (GRE) or the Pharmacy College Admission Test (PCAT). For 2010 applicants,

neither the GRE nor the PCAT is required, but submission of one or the other is highly recommended. A combined GRE score greater than 1000 is preferred. The PCAT is designed to measure verbal ability, quantitative ability, reading comprehension, and knowledge of biology and chemistry. PCAT scores must be no more than five years old at the time of the interview.

## Interview Process

Upon receipt of the completed application and the required credentials, the most qualified applicants will be invited to interview. Those applicants selected will be notified in writing of the time and place. All applicants who are admitted to the college must be interviewed, but an invitation to appear for an interview should not be construed as evidence of acceptance.

## Letters of Evaluation

Three letters of recommendation/evaluation are required. One should be from the dean/director of a pharmacy program. In addition, a letter of reference from a registered pharmacist is recommended. Forms for letters of evaluation are available on our Web site ([www.nova.edu](http://www.nova.edu)) or by contacting the Office of Admissions.

**Note:** All documents submitted to the Office of Admissions become the property of Nova Southeastern University. Originals or copies of originals will not be returned to the applicant or forwarded to another institution, agency, or person.

Inquiries should be directed to

Nova Southeastern University  
Attention: Pharmacy Admissions  
3200 South University Drive

Fort Lauderdale, Florida  
33328-2018  
(954) 262-1101  
800-356- 0026, ext. 21101  
[www.nova.edu](http://www.nova.edu)

## Requirements

All students are required to have ongoing access to a computer and an active account with an Internet service provider (ISP).

This curriculum requires a student's full effort. Students are responsible for their own transportation to the experiential sites.

## Tuition and Fees

The board of trustees has established the following tuition and fees for 2010–2011, which are subject to change at any time at the board's discretion:

- Tuition is \$28,265 (U.S.) with an NSU College of Pharmacy contract and \$31,255 (U.S.) for noncontract students, regardless of credit-hour load. A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.
- Preregistration fee is \$1,000. This fee is due May 15, and is required to reserve the accepted applicant's place in the entering first-year class. This advance payment will be deducted from the tuition payment due on registration day, but is not refundable in the event of a withdrawal.

The first semester's tuition and fees, less the \$1,000 previously paid, are due on or before registration day. Tuition for each subsequent semester

is due on or before the appropriate registration day. Students will not be permitted to register until their financial obligations have been met.

## Graduation Requirements

Graduation requirements of International Pharmacy Graduates are the same as the Entry-level Pharm.D. Program, except international students must complete a minimum of 107 credit hours of coursework at the College of Pharmacy within six years.

## International/Immigration Information

It is the responsibility of the applicant to contact the Office of International Students for information on immigration regulations and student visa requirements. Inquiries can be directed to

Nova Southeastern University  
Attention: Office of  
International Students  
3301 College Avenue  
Fort Lauderdale, Florida  
33314-7796

(954) 262-7241  
800-541-6682, ext. 27241  
Fax: (954) 262-7265  
Email: [intl@nsu.nova.edu](mailto:intl@nsu.nova.edu)  
[www.nova.edu/cwis/registerar/iss](http://www.nova.edu/cwis/registerar/iss)

It is the responsibility of any student who does not have U.S. citizenship or permanent resident status to ensure that his or her visa status allows for the issue of a Social Security number. A Social Security number is mandatory in order to receive an intern license, which is a requirement for placement on practice experiences. Without practice experiences, a student cannot complete the curriculum or the requirements of the Pharm.D. degree program.

## International Curriculum Outline

### FIRST YEAR—Fall Semester

Course	Credits	Taken With
PHA 4000 Medical Terminology	0	P1 Entry-Level
PHA 4300 Pharmacy and the Health Care System	2	P1 Entry-Level
PHA 4400 Dean's Hour I	0	P1 Entry-Level
PHA 5100 Clinical Pharmacokinetics	3	P2 Entry-Level
PHA 5220 Pharmacodynamics III	5	P2 Entry-Level
PHA 5300 Social and Behavioral Pharmacy	2	P2 Entry-Level
PHA 5380 Pharmacy Law	2	P2 Entry-Level
PHA 5580 IPPE: Community	0	P2 Entry-Level
PHA 4220 Pharmacodynamics Principles and Cardiovascular Pharmacology	4	Exclusively for International Pharmacy Graduates
<b>Total</b>	<b>18</b>	

### FIRST YEAR—Winter Semester

Course	Credits	Taken With
PHA 4410 Dean's Hour II	0	P1 Entry-Level
PHA 4310 Pharmaceutical Marketing	2	P1 Entry Level
PHA 4550 Drug Information Resources	1	P1 Entry-Level
PHA 5150 Nonprescription Therapies	3	P2 Entry-Level
PHA 5230 Pharmacodynamics IV	4	P2 Entry-level
PHA 5330 Communication Skills	2	P2 Entry-Level
PHA 5580 IPPE: Community (Continued from first semester)	3	P2 Entry-Level
PHA 5610 Therapeutics/Pathophysiology I	5	P2 Entry-Level
<b>Total</b>	<b>20</b>	

## SECOND YEAR—Fall Semester

Course	Credits	Taken With
PHA 6300 Research Design and Statistics	3	P3 Entry-Level
PHA 6440 Pharmacy Management	3	P3 Entry-Level
PHA 6560 Physical Assessment*	2	P3 Entry-Level
PHA 6580 IPPE: Health System	2	P3 Entry-Level
PHA 6620 Therapeutics/Pathophysiology II	5	P3 Entry-Level
PHA 6710 Patient Care Management I	2	P3 Entry-Level
PHA 6710L Patient Care Management I Lab	0	P3 Entry-Level
Suggested Elective	2	
<b>Total</b>	<b>19</b>	

## SECOND YEAR—Winter Semester

Course	Credits	Taken With
PHA 6410 Pharmacoepidemiology and Pharmacoconomics	3	P3 Entry-Level
PHA 6610 Drug Literature Evaluation	2	P3 Entry-Level
PHA 6630 Therapeutics/Pathophysiology III	4	P3 Entry-Level
PHA 6680 IPPE: Pharmacy Service	2	P3 Entry-Level
PHA 6720 Patient Care Management II	1	P3 Entry-Level
PHA 6720L Patient Care Management II Lab	0	P3 Entry-Level
Suggested Elective	2	
<b>Total</b>	<b>14</b>	

## THIRD YEAR—Summer/Fall/Winter Semesters

Course	Credits	Taken With
PHA 7610 APPE: Elective I	4	P4 Entry-Level
PHA 7620 APPE: Acute Care Medicine	4	P4 Entry-Level
PHA 7630 APPE: Elective II	4	P4 Entry-Level
PHA 7640 APPE: Ambulatory Medicine	4	P4 Entry-Level
PHA 7650 APPE: Elective III	4	P4 Entry-Level
PHA 7660 APPE: Select Community	4	P4 Entry-Level
PHA 7670 APPE: Elective IV	4	P4 Entry-Level
PHA 7680 APPE: Select Hospital	4	P4 Entry-Level
PHA 7690 APPE: Elective V	4	P4 Entry-Level
PHA 7801 Professional Development Capstone 1	0	P4 Entry-Level
PHA 7802 Professional Development Capstone 2	0	P4 Entry-Level
PHA 7803 Professional Development Capstone 3	0	P4 Entry-Level
<b>Total</b>	<b>36</b>	

**Total Curriculum Credit Hours:** 107

The curriculum is revised and modified frequently to meet the demands of the profession. These courses are representative of the overall requirements of the program at the time of publication.

## College of Pharmacy Course Descriptions

Note: Listed at the end of each entry are lecture clock hours, laboratory clock hours, and credit hours.

### Basic Medical Sciences

#### BCH 5200—Biochemistry

Covers the structures, functions, and metabolism of lipids, proteins, carbohydrates, nucleic acids, and body systems. Includes pharmaceutical application of material. (64-0-4)

#### MIC 5200—Microbiology

Covers the underlying nature of infectious microorganisms. Emphasizes cause, prevention, and control of infectious diseases; immunology; mycology; parasitology; bacteriology; virology. (48-0-3)

#### PHA 5211—

#### Pharmacy Anatomy and Physiology I

Study of the structure and function of cells, tissues, organ systems, and the organism. Physiology covers function and biological processes and their integration and control. This course interrelates the study of structure and function with special attention given the fundamental physiological principles. (64-0-4)

#### PHA 5221—

#### Pharmacy Anatomy and Physiology II

Continuation of Pharmacy Anatomy and Physiology I. (64-0-4)

### Pharmacy—Required Courses

#### PHA 4000—Medical Terminology

The focus of this course is to explain the technique of medical word building and introduce health-related anatomical, physiological, and pathological terms organized by specific body systems. Students will be required to demonstrate the mastery

of medical terminology during their first year. (16-0-0)

#### PHA 4100—Pharmaceutics I

Theory of physicochemical principles that apply to pharmaceutical systems and a study of liquid and solid dispersion systems. (48-0-3)

#### PHA 4110—Pharmaceutics II

Continuation of the study of traditional pharmaceutical dosage forms with emphasis on solid and semisolid systems and an introduction to the novel drug delivery systems. Preparation and dispensing of pharmaceutical solution, emulsion, suspension, semisolid, and solid dosage forms are studied in laboratory. **Prerequisites:** Pharmaceutics I and Pharmacy Calculations (32-48-3)

#### PHA 4110L—

#### Pharmaceutics II Lab

Lab section for PHA 4110 (Pharmaceutics II). Student must be registered for PHA 4110 and PHA 4110L concurrently.

#### PHA 4120—

#### Pharmacy Calculations

Different methods used by the pharmacist in the process of solving the mathematical problems typically found in the practice of the profession of pharmacy. Emphasizes metric and common systems conversions, fundamentals of measurements, percentages, dose calculation, specific gravity, dilution, concentration, and dosage adjustment. (16-0-1)

#### PHA 4130—Pharmacokinetics

Mechanisms and rates of absorption and disposition of drugs. Examines

how the fate of drugs in the body is influenced by physiologic and biochemical processes. The principles involved in drug absorption, distribution, metabolism, and elimination are discussed. (64-0-4)

#### **PPS 4180—Prescription Practice**

Applies scientific, legal, and ethical principles to the compounding and dispensing of medicinal agents in modern medical practice. Analysis, interpretation, and evaluation of prescription products in various forms. (16-48-3)

#### **PPS 4180L—Prescription Practice Lab**

Students must be registered for PHA 4180 and 4180L concurrently.

#### **PHA 4200—Pharmacodynamics I**

Applies the principles of organic chemistry in order to understand drug action at the molecular level, with special emphasis on determinants of drug absorption and distribution, physiological receptors and drug receptor interactions, and drug metabolism and elimination. (48-0-3)

#### **PHA 4210—Pharmacodynamics II**

Applies the principles of biochemistry, physiology, and pathophysiology to understand drug actions at the receptor, cellular, and system levels under normal physiological and pathological conditions. Focuses on the drugs that act on the autonomic nervous system, cardiovascular system, and blood components. (48-0-3)

#### **PHA 4220—Pharmacodynamics Principles and Cardiovascular Pharmacology**

This course will apply the principles of organic chemistry, biochemistry, physiology, and pathophysiology to understand drug actions at the recep-

tor, cellular and system levels under normal physiological and pathological conditions. Special emphasis will be placed on students understanding of determinants of drug absorption, distribution, physiological receptors, drug-receptor interaction, drug metabolism and elimination. This course will also focus on the drugs that act on the autonomic nervous system, cardiovascular system, and blood components as well. The rationale for the use of these therapeutic agents, their effects on cells, tissues, organ systems, and patients; the mechanisms underlying these effects; the therapeutic value of specific drug effects; and the adverse effects of the drugs will be addressed as well. (64-0-4)

#### **PHA 4300—Pharmacy and the Health Care System**

Covers major concepts related to the structure and functioning of the U.S. health care system. Emphasizes analyzing issues associated with health care, personnel, and the way that health care is organized, financed, and regulated. Examines the provision of drugs and pharmacy services in the context of the health care enterprise. (32-0-2)

#### **PHA 4310—Pharmaceutical Marketing**

Overview of the drug and pharmaceutical care development and distribution system. (32-0-2)

#### **PHA 4400—Dean's Hour I**

Introduction to the pharmacy profession and professionalism. (6-0-0)

#### **PHA 4410—Dean's Hour II**

Continuation of Dean's Hour I. (6-0-0)

**PHA 4550—Drug Information Resources**

Detailed review of the various drug information resources available. Students learn the strengths and weaknesses of the various references and how to apply their use in practice. An experiential portion will provide practice in locating drug information and preparing written and verbal responses. (16-0-1)

**PHA 4580—Service Learning**

On-site experience is intended to foster a sense of community involvement. Students learn to be team members, develop listening and observation skills, strengthen professional demeanor, and reflect on their impact in the community. (13-70-2)

**PHA 5100—Clinical Pharmacokinetics**

Applies the concepts and techniques of biopharmaceutics and pharmacokinetics to the rational design of the individualized drug dosage regimens, taking into consideration factors such as hepatic and renal impairment, effects of other diseases, and drug interactions. **Prerequisite:** Pharmacokinetics (48-0-3)

**PHA 5150—Nonprescription Therapies**

The use of nonprescription therapies including drug and nondrug treatments. Discusses patient education information, potential drug interactions, and recommended treatments. (48-0-3)

**PHA 5220—Pharmacodynamics III**

Continuation of Pharmacodynamics I and II. Covers drugs that are used in the treatment of pain and inflam-

mation, CNS related disorders, and endocrine-mediated disorders. **Prerequisite:** Pharmacodynamics I (80-0-5)

**PHA 5230—Pharmacodynamics IV**

Continuation of Pharmacodynamics I, II, and III. Covers anti-infective agents, cancer, and anti-cancer drugs. Emphasizes the mechanism of action, pharmacodynamics, and therapeutic uses of drug categories. Identifies adverse effects, contraindications, and clinically significant interactions with drugs and/or food. **Prerequisite:** Pharmacodynamics I (64-0-4)

**PHA 5300—Social and Behavioral Pharmacy**

Background in the sociological, psychological, and behavioral aspects of pharmacy practice to help students understand the patients' experience of health and illness. Variability in morbidity and mortality, health seeking and patient behavior is explored. (32-0-2)

**PHA 5330—Communication Skills**

Focuses on the tools necessary to conduct effective and efficient patient interactions. Systematic interviewing, patient assessment, and education techniques are emphasized. Specific communication tools to help foster caring therapeutic relationships with patients are incorporated. (32-0-2)

**PHA 5380—Pharmacy Law**

This course covers federal and state statutes, rules, and regulations that affect pharmacy practice and selected aspects of general law and ethics. Emphasizes the interpretation of those laws affecting the practice of community and institutional



pharmacy. Ethical situations are also presented. (32-0-2)

**PHA 5580—Introductory  
Pharmacy Practice Experience:  
Community**

Students are exposed to the role and responsibilities of the professionally oriented community pharmacist and the importance of effective communication between pharmacist, patients, and other health care providers. On-site experience provides basic knowledge of the drug distribution process in a community pharmacy. Legal, ethical, and practice issues in pharmacy are discussed during classroom activities. (16-120-3)

**PHA 5610—  
Therapeutics and Pathophysiology I**

The therapeutics/pathophysiology curricular components are divided into three courses. Courses need not be taken in sequence. Therapeutics/pathophysiology combines pathophysiology of disease with rational pharmacotherapy. Courses are divided into disease-state modules and focus on the therapeutic decision-making process. Concepts include physical findings, laboratory values, adverse drug effects, drug interactions, and patient education. Application of previous course materials, including pharmacodynamics and pharmacokinetics, is required. The disease categories presented in this course include the following: introduction to therapeutic concepts, cardiovascular disease, renal diseases, nutritional issues, and gastrointestinal disorders. **Prerequisites:** Pharmacodynamics I, II, and III (80-0-5)

**PHA 6101—  
Clinical Pharmacology**

This course is designed to provide the student with the background necessary for the clinical sciences and to help students acquire a body of knowledge about the drugs that will provide the foundation by which pharmacists will practice pharmaceutical care. The objective of this course is to review all of the major classes of cardiovascular drugs and those of the central nervous system. The course will address the rationale for their use as therapeutic agents; their effects on cells, tissues, organ systems, and patients; the mechanisms underlying these effects; the therapeutic value of specific drug effects; and the adverse effects of drugs. (64-0-4)

**PHA 6300—Research  
Design and Statistics**

Research methodology and statistics. Basic statistical concepts are covered and students are expected to understand, evaluate, and generate clinical, biomedical, and health care services research. (48-0-3)

**PHA 6410—Pharmacoepidemiology  
and Pharmacoeconomics**

Overview of pharmacoepidemiology and pharmacoeconomics. Identifies principles, methodologies of pharmacoepidemiology/pharmacoeconomic analyses—the strengths and weaknesses of specific methods. Practical examples for successful implementation of these concepts are discussed. (48-0-3)

**PHA 6440—  
Pharmacy Management**

Overview of management, theory, human resources, and financial management applied to pharmacy operations. (48-0-3)

### **PHA 6560—Physical Assessment**

Patient assessment for pharmacists in both ambulatory and inpatient settings. Demonstrates and explains clinical interview and physical examination techniques. Students practice techniques on one another under supervision. Charting, interpretation of findings, and evaluation of common clinical entities will be integrated into these activities. (15-48-2)

### **PHA 6580—Introductory Pharmacy Practice Experience: Health System**

Students are exposed to various aspects of institutional pharmacy practice including drug storage, drug security, and policies and procedures. On-site experience provides basic knowledge of the drug distribution process in a hospital setting. Activities will include prescription preparation, using a unit dose system, use of references, and inventory management. **Prerequisite:** P3 standing (0-120-2)

### **PHA 6590—Advanced Pharmacy Practice Experience: Community**

This advanced practice experience promotes expertise in outpatient care and enables a student to develop skills as a clinical practitioner in a community setting. Students will be exposed to the role and responsibilities of the pharmacist in the community setting, as well as the importance of appropriate and effective communication in the process for developing appropriate individualized treatment plans and of the follow-up evaluation to determine actual outcomes. Under supervision, students will be required to fill prescriptions and counsel patients according to federal, state, and local laws. Students will be assigned projects, topics, and activi-

ties that will expand the foundation of didactic coursework and enhance the experience. (0-160-4)

### **PHA 6610—Drug Literature Evaluation**

Provides a framework to guide the student through the thought processes necessary to evaluate different types of medical information. The student is able to apply learned techniques in information retrieval, evaluation, and communication by conducting actual literature evaluations on relevant therapeutic topics. **Prerequisites:** Drug Information Resources and Research Design and Statistics (32-0-2)

### **PHA 6620—Therapeutics and Pathophysiology II**

This is the second of three courses in therapeutics/pathophysiology. Courses need not be taken in sequence. Therapeutics/pathophysiology combines pathophysiology of disease with rational pharmacotherapy. Courses are divided into disease state modules and focus on the therapeutic decision-making process. Concepts include physical findings, laboratory values, adverse drug effects, drug interactions, and patient education. Application of previous course materials, including pharmacodynamics and pharmacokinetics is required. The disease categories presented in this course include the following: endocrine and other hormonal disorders, smoking cessation, neurological and psychiatric disorders, and clinical toxicology. **Prerequisites:** Pharmacodynamics I, II, and III (80-0-5)

### **PHA 6630—**

#### **Therapeutics and Pathophysiology III**

This is the third of three courses in therapeutics/pathophysiology. Courses need not be taken in sequence. Therapeutics/pathophysiology combines pathophysiology of disease with rational pharmacotherapy. Courses are divided into disease state modules and focus on the therapeutic decision-making process. Concepts include physical findings, laboratory values, adverse drug effects, drug interactions, and patient education. Application of previous course materials, including pharmacodynamics and pharmacokinetics is required. The disease categories presented in this course include the following: Infectious diseases/HIV/AIDS, transplant, immunology, and oncology. **Prerequisites:** Pharmacodynamics I, II, and III (64-0-4)

### **PHA 6680—Introductory**

#### **Pharmacy Practice Experience:**

#### **Pharmacy Service**

Introduction to the application of skills, concepts, and knowledge acquired in the didactic component of the curriculum in institutional pharmacy settings. This course promotes the development of pharmacy practice skills and furthers the development of communication skills. On-site experience enables students to prepare for advanced practice experiences. **Prerequisite:** P3 standing (0-120-2)

### **PHA 6690—Advanced Pharmacy Practice Experience: Hospital**

This advanced practice experience enhances student awareness of the various aspects of hospital pharmacy practice and the role and responsibilities of the hospital pharmacist. Students will expand their knowledge

and practice skills by participating in distribution, clinical activities, and administrative activities. Active decision making and continued development of problem-solving skills are activities in this advanced practice experience. **Prerequisite:** Successful completion of all didactic coursework (0-160-4)

### **PHA 6710—Patient Care Management I**

Sequence of laboratory-based courses use a case study method to draw on knowledge acquired from all other courses in the curriculum. Cases present patients with conditions that reflect real-life situations. The course is divided by disease states and problems may range from therapeutic to social behavioral issues. Emphasizes decision-making processes and integrating knowledge and skills from all courses in the curriculum. **Prerequisites:** Clinical Pharmacokinetics; Pharmacodynamics I, II, and III; Therapeutics I (16-24-2)

### **PHA 6710L—Patient Care Management I Lab**

Lab section for PHA 6710 (Patient Care Management I). Student must be registered for PHA 6710 and PHA 6710L concurrently.

### **PHA 6720—Patient Care Management II**

Continuation of Patient Care Management I. **Prerequisites:** Pharmacodynamics II and III, Therapeutics/Pathophysiology I and II, and Clinical Pharmacokinetics. (8-24-1)

### **PHA 6720L—Patient Care Management II Lab**

Lab section for PHA 6720 (PCMII) Student must be registered for PHA 6720 and PHA 6720L concurrently.

**PHA 6790—Advanced Pharmacy Practice Experience: General Clinical**

This advanced practice experience promotes competence in the basic skills and knowledge required to practice as a general clinical pharmacist in a hospital setting. Students will be exposed to the everyday management of a hospital pharmacy and the patient care and administrative responsibilities of a clinical coordinator or director of pharmacy. **Prerequisite:** Successful completion of all didactic coursework (0-160-4)

**PHA 7610/7630/7650/7670/7690—Advanced Pharmacy Practice Experience: Electives**

Four supervised elective experiences that each consist of a four-week, full-time (40 hours per week), off-campus experience in a pharmacy practice specialty area that will allow students to obtain broader experiences. At least one of these electives must involve direct patient care. Elective experiences include, but are not limited to, administration, geriatrics, pharmacokinetics, infectious disease, nutritional support, psychiatry, pediatrics, critical care, cardiology, neonatology, immunology, and clinical research. **Prerequisite:** Successful completion of all didactic coursework (0-160-4)

**PHA 7620/7640/7660/7680—Required Advanced Pharmacy Practice Experiences**

Each required advanced practice experience consists of a four-week, full-time (40 hours per week), off-campus experience in a supervised pharmacy practice environment. In these settings, students apply didactic instruction, develop competencies, and enhance their knowledge of patient care management. These required experiences include Advanced Prac-

tice Experience: Internal Medicine, Advanced Practice Experience: Ambulatory Care, Advanced Practice Experience: Required Select Community, and Advanced Practice Experience: Required Select Hospital. **Prerequisite:** Successful completion of all didactic coursework (0-160-4)

**PHA 7620—Advanced Pharmacy Practice Experience: Acute Care Medicine**

In this advanced practice experience, students will refine skills in therapeutics, pharmacokinetics, drug information retrieval and evaluation, verbal and written communication, patient monitoring, and case presentations. Students will apply knowledge, develop competency in pharmacy practice, and enhance knowledge of therapeutic management of common diseases such as hypertension, congestive heart failure, diabetes, and renal failure. **Prerequisite:** Successful completion of all didactic coursework (0-160-4)

**PHA 7640—Advanced Pharmacy Practice Experience: Ambulatory Medicine**

In this advanced practice experience, students will participate in matters pertaining to drug therapy as members of a health care team. This will be done through extensive patient monitoring and obtaining medical and drug information directly from patients during interviews. Students will apply and synthesize didactic information to the activities of a pharmacist as they develop their professional maturity and judgment skills. **Prerequisite:** Successful completion of all didactic coursework (0-160-4)

**PHA 7660—Advanced  
Pharmacy Practice Experience:  
Select Community**

In this advanced practice experience, students will develop and apply didactic knowledge in outpatient settings. Students will select one specialty from multiple offerings to complete this requirement. Students will be exposed to the role of a clinically oriented pharmacist in a community setting. The course focuses on technical skills in the distribution of prescriptions and the practice of pharmaceutical care. **Prerequisite:** Successful completion of all didactic coursework (0-160-4)

**PHA 7680—Advanced  
Pharmacy Practice Experience:  
Select Hospital**

In this advanced practice experience, students will develop skills and apply didactic knowledge in hospital settings. Students select one specialty from multiple offerings to complete this requirement. Students will be exposed to the role and responsibilities of a professionally oriented pharmacist. Students participate as active members of a health care team. **Prerequisite:** Successful completion of all didactic coursework (0-160-4)

**PHA 7690—Advanced Pharmacy  
Practice Experience: Elective V**

An additional, optional advanced practice experience, this course provides additional depth or breadth of practice knowledge and skills. It may also be used to meet the college elective requirements. **Prerequisite:** Successful completion of all didactic coursework. (0-160-4)

**PHA 7700—Research  
Design and Statistics**

Research methodology and statistics. Basic statistical concepts are covered and students are expected to understand, evaluate, and generate clinical, biomedical, and health care services research. (32-0-2)

**PHA 7710—Pharmacoeconomics**  
Basic concepts and definitions involved in the fields of pharmacoepidemiology and pharmacoeconomics. Emphasizes identifying the principles and methodologies of pharmacoepidemiology/pharmacoeconomic analysis and the strengths and weaknesses of specific methods. Stresses application of relevant principles within critical pathways. Discusses practical examples for successful implementation of these concepts and methods for accessing data. This course will run half a semester. (32-0-2)

**PHA 7720—Physical Assessment**  
Teaches patient assessment for pharmacists in both ambulatory and in-patient settings. Clinical interview and physical examination techniques will be explained and demonstrated. Students practice techniques on one another under supervision. Charting, interpretation of findings, and evaluation of common clinical entities will be integrated into these activities. (15-48-2)

**PHA 7730—  
Clinical Pharmacokinetics**  
Applies the concepts and techniques of biopharmaceutics and pharmacokinetics to the rational design of individualized drug dosage regimens, taking into consideration factors such as hepatic and renal impairment, effects of other diseases, and drug interactions. (64-0-4)

### **PHA 7740—Drug Literature Evaluation**

Provides a framework to guide the student through the thought processes necessary to evaluate different types of medical information. The student is able to apply learned techniques in information retrieval, evaluation, and communication by conducting actual literature evaluations on relevant therapeutic topics. This course will run half a semester. (32-0-2)

### **PHA 7750—Disease Management I**

The disease management courses will provide students with an overview of disease processes and treatment. Students will integrate information from discussion into their prior experience and knowledge base to expand their views and ideals and further the profession of pharmacy. This course incorporates the concepts of therapeutics and disease-state management. Emphasis is placed on developing patient-based problem-solving skills that include appropriate patient assessment, drug selection, and monitoring of drug therapy. Pharmacoeconomic and administrative concerns, development of clinical services, and controversial issues related to these disease states are also discussed. This course is taught via WebCT and compressed video technology using live lectures, integrated case studies, and exams. Topics covered in this course include the following: women's health, endocrinology, cardiovascular diseases, renal disorders, and toxicology. (64-0-4)

### **PHA 7760—Disease Management II**

This course is a continuation of Disease Management I. The disease

management courses will provide students with an overview of disease processes and treatment. Students will integrate information from discussion into their prior experience and knowledge base to expand their views and ideals and further the profession of pharmacy. This course incorporates the concepts of therapeutics and disease-state management. Emphasis is placed on developing patient-based problem-solving skills that include appropriate patient assessment, drug selection, and monitoring of drug therapy. Pharmacoeconomic and administrative concerns, development of clinical services, and controversial issues related to these disease states are also discussed. This course is taught using WebCT and compressed video technology using live lectures, integrated case studies, and exams. Topics covered in this course include the following: geriatrics, neurological and psychiatric disorders, gastrointestinal diseases, nutritional issues, pulmonology, and substance abuse/withdrawal. (64-0-4)

### **PHA 7770—Disease Management III**

This course is a continuation of Disease Management II. The disease management courses will provide students with an overview of disease processes and treatment. Students will integrate information from discussion into their prior experience and knowledge base to expand their views and ideals and further the profession of pharmacy. This course incorporates the concepts of therapeutics and disease-state management. Emphasis is placed on developing patient-based problem-solving skills that include appropriate patient assessment, drug selection, and monitoring of drug therapy. Pharmacoe-

economic and administrative concerns, development of clinical services, and controversial issues related to these disease states are also discussed. This course is taught using WebCT and compressed video technology using live lectures, integrated case studies, and exams. Topics covered in this course include the following: infectious diseases/HIV/AIDS, transplant and immunology, and oncology. (64-0-4)

### **PHA 7780—Management and the U.S. Health Care System**

Covers major concepts related to the structure and functioning of the U.S. health care system. Emphasizes analyzing issues associated with health care, personnel, and the way health care is organized, financed, and regulated. Examines the provision of drugs and pharmacy services in the context of the health care enterprises. Then the course focuses on the necessary supervisory skills needed to function as a manager within the health care system. (32-0-2)

### **PHA 7790—Research Project**

Students are required to complete a research project that integrates principles learned in such courses as Research Design and Statistics, Drug Literature Evaluation, and Pharmacoeconomics. Limited lectures may be provided to guide the students as a group. Each student will work with a faculty member who will serve as the primary mentor for the project. All projects must be accepted for publication or presented at a peer-reviewed session of a state or national professional meeting. **Prerequisites:** Research Design and Statistics and Drug Literature Evaluation (16-96-4)

### **PHA 7801—Professional Development Capstone 1**

The primary goal for the Professional Development Capstone course series is to assess and strengthen student knowledge and skills developed during the four-year pharmacy curriculum. In Capstone 1, students review and assess their knowledge and skills in pharmacy calculations through problem sets and patient-based case studies. **Prerequisites:** Completion of P1, P2, and P3 coursework **Corequisite:** P4 standing (16-0-0)

### **PHA 7802—Professional Development Capstone 2**

Students demonstrate the application of medication therapy management knowledge as applied to selected disease states. The course focuses on demonstration of clinical application of pharmacotherapeutic knowledge associated with disease states commonly seen in adult internal medicine patients. **Prerequisites:** Completion of P1, P2, and P3 coursework **Corequisite:** P4 standing (16-0-0)

### **PHA 7803—Professional Development Capstone 3**

Students review and assess their knowledge of over-the-counter medication therapies, federal and state pharmacy law, pharmacokinetics, and disease management through the use of patient-based case studies and legal cases. **Prerequisites:** Completion of P1, P2, and P3 coursework **Corequisite:** P4 standing (16-0-0)

### **PHA 7820/7840—Required Advanced Pharmacy Practice Experiences**

Each of the four required Advanced Practice Experiences consist of four-

week, full-time (40 hours per week), off-campus experiences in a supervised pharmacy practice environment. In these clinical settings, students participate as members of a health care team to develop optimum drug therapy regimens. Required experiences include both acute care and chronic care.

**Prerequisite:** Successful completion of all didactic coursework (0-160-4)

#### **PHA 7820—Advanced Pharmacy Practice Experience: Acute Care**

In this advanced practice experience, students will have the accessibility to interact with patients and other health care practitioners in matters pertaining to drug therapy, monitoring, evaluation, and education. Students select one specialty from multiple offerings to complete this requirement. The student will participate in the successful clinical management of acutely ill patients.

**Prerequisite:** Successful completion of all didactic coursework (0-160-4)

#### **PHA 7840—Advanced Pharmacy Practice Experience: Chronic Care**

Interaction with patients in chronic or long-term care settings including nursing homes and ambulatory care settings. Students follow patients over time and participate as members of a health care team to encourage drug therapy through extensive patient monitoring and obtaining medical and drug information directly from patients during interviews.

**Prerequisite:** Successful completion of all didactic coursework (0-160-4)

#### **PHA 7860/7880—Elective Advanced Pharmacy Practice Experiences**

Two elective rotations that consist of four-week, full-time (40 hours per week), off-campus experiences in a

supervised pharmacy practice emphasizing nondistributive, clinical aspects of pharmacy practice in a specialty area, allowing students to specialize and obtain greater practice experience. At least one of these elective rotations must be in a direct patient care setting. Specialty rotations may include, but are not limited to, informatics, administration, critical care, geriatrics, pharmacoconomics, pharmacokinetics, infectious disease, nutritional support, psychopharmacy, pediatrics, rheumatology, surgery, cardiology, neonatology, immunology, and clinical research where available.

**Prerequisite:** Successful completion of all didactic coursework (0-160-4)

### **Elective Courses**

#### **PHA 4221—Introduction to Molecular Medicine**

Gene defects and diseases that originate at the molecular level, basic principles of gene expression, recombinant DNA derived pharmaceuticals, and modern diagnostic and therapeutic approaches that are currently used to fight genetically determined diseases. **Prerequisite:** Biochemistry (16-0-2)

#### **PHA 4241—Advances in Central Nervous System Pharmacology**

Extensive review of recent developments in the understanding of CNS neurotransmitter/neuropeptide receptor systems with particular emphasis on their relevance to the actions of psychopharmacological agents. Focuses on the neuroanatomy, neurophysiology and pathophysiology of specific neurotransmitter/neuropeptide systems; examines the interaction of these systems in the expression of CNS effects. **Prerequisites:** Pharmacodynamics I, II, and III (32-0-2)



### **PHA 5101—**

#### **Pharmaceutical Technology**

This course is designed to provide a more advanced understanding of pharmaceutical industry product and process development technology than that offered in Pharmaceutics I and II. Particular emphasis is placed on the physicochemical principles and formulation rationale used in the development and manufacturing of solid dosage forms. (32-0-2)

### **PHA 5105—Overview of Consultant Pharmacy Practice**

This course is intended to provide an overview of geriatric consulting statutes that regulate the activity of the consultant pharmacist, the HCFA survey guidelines, the types of facilities required to have a consultant pharmacist, and monitoring of patient's medication. (48-0-3)

### **PHA 5107—Current Topics in Pharmaceutical Sciences**

Special topics will be covered by faculty members and visiting scientists. The goal of each topic is to provide the student with an understanding of, and appreciation for, current problems and procedures underlying the pharmaceutical sciences disciplines. ([16-32]-0-[1-2])

### **PHA 5111—Applied Pharmaceuti- cal Kinetics**

Provides comprehensive coverage of current applications of chemical kinetic theory in drug research, product development, quality control, and manufacturing activities of the pharmaceutical industry in the United States. (32-0-2)

### **PHA 5113—Current Topics in Pharmaceutical Sciences**

Special topics are covered by faculty members and visiting scientists. The goal of each topic is to provide the student with an understanding of and appreciation for current problems and procedures underlying the pharmaceutical sciences discipline. **Prerequisite:** Topic dependent—see course coordinator for details (16-0-1)

### **PHA 5115—Advances in Drug Delivery**

Current information on the science and technology of novel drug delivery systems. Emphasizes the development of controlled release formulations based on physiochemical properties of the therapeutic agent, polymer and biomaterials, and the mathematical relationships of drug disposition. (32-0-2)

### **PHA 5117—Cardiovascular Risk Factors**

This course is designed to provide the student with background knowledge necessary for the clinical sciences, information related to cardiovascular risk factors, and the foundation from which pharmacists practice pharmaceutical care. The course reviews all major classes of cardiovascular risk factors and discusses evidence-based therapy. The rationale of prevention, lifestyle modifications, and current therapies for the treatment of common and silent cardiovascular risk factors are also addressed. Attention is given to specific clinical studies regarding new strategies to prevent and treat risk factors associated with cardiovascular disease. (32-0-2)

### **PHA 5119—Current Advances in Pharmaceutical Sciences**

The focus of this course is on an array of pharmaceutical science topics recently highlighted by the media. Working in groups, students will prepare and give oral presentations and written reports on groundbreaking changes in the discovery, development, manufacture, and dispensing of pharmaceuticals that will directly affect the practice of pharmacy. Topics selected by the instructor will be those that have recently appeared in scientific journals that may also have received attention from new media. Active participation in class discussion is expected. (32-0-2)

### **PHA 5201—Biochemistry for Pharmaceutical Sciences**

The focus of the first part of the course will be on structure, function, and metabolism of the carbohydrates, amino acids, lipids, and nucleotides. The course will also cover the transcription and translation of the genetic information and the control of these processes, digestion, absorption and nutrition, and advanced control topics. (64-0-4)

### **PHA 5203—Consumer Health Informatics and Web 2.0 in Health Care**

Provides an introduction to, and overview of, consumer health informatics and Web 2.0 applications used in health care. Explores the development of consumers as ePatients and health information seekers, using tools such as patient-controlled electronic health records as well as the fluid nature of Web 2.0 in medicine. **Prerequisites:** PHA 4550 (32-0-2)

### **PHA 5215—Advanced Pharmaceutical Compounding**

The course will provide advanced training in the art, science and technology of pharmaceutical compounding. The course has two components: an online component that contains 20–23 hours of didactic work, and a laboratory experience that contains four-hour laboratory exercises. Note: A special fee is required. Taught at the P\*Ceutics Institute in Houston, Texas. **Prerequisite:** PHA 4110 (24-60-2) Transfer credit

### **PHA 5219—Veterinary Pharmacotherapy**

Designed to equip pharmacy students with an appropriate knowledge base and skill level to facilitate competence in practicing veterinary compounding pharmacy. The course has two components: an online component that contains ten modules of 20–25 hours of didactic work, and two modules that contain 16 contact hours on compounding veterinary dosage forms. Note: A special fee is required. Taught at the P\*Ceutics Institute in Houston, Texas. **Prerequisite:** PHA 4110 (24-16-2) Transfer credit

### **PHA 5223—Drugs of Abuse**

This course covers types of substances abused, methods and routes of administration, the pertinent toxicokinetics, the pharmacological/toxicological mechanisms and the clinical manifestations of drug abuse. Treatment of intoxication and withdrawal, societal impact of drug abuse, legal implications, and current trends of substance abuse. **Prerequisites:** Pharmacodynamics I and II (32-0-2)

### **PHA 5225—**

#### **Principles of Neuropharmacology**

Principles of membrane support and bioelectricity, synaptic transmission and recent molecular biological approaches and techniques that have revolutionized the understanding of membrane channels. (32-0-2)

### **PHA 5227—Pharmacoethics**

Introduces the student to bioethical issues encountered in health care with emphasis on those ethical problems of particular importance to the practice of pharmacy. Students will explore issues that have arisen from advances in biotechnology, resource allocation, research using human subjects, informed consent, the function of ethics committees, and the right to privacy as they impact on the legal rights and responsibilities of patients, health providers, and government policy makers. (32-0-2)

### **PHA 5333—Development and Implementation of Clinical Trials**

This course describes the principles, ethics, and regulatory requirements of clinical trial design and conduct for drug products, in the context of global drug development and regulatory review. (32-0-2)

### **PHA 5335—Drug-Induced Disease**

The course will describe and discuss the most serious negative and undesired effects of drugs, as well as their impact on public health. The course emphasizes the role of pharmacists in the recognition of early signs and symptoms of life-threatening adverse drug events and in the prevention of such events. Medical terminology, understanding and discussion of case reports, and evidence-based manage-

ment of most common severe adverse drug reactions are important aspects of the course. When appropriate, the role of pharmacogenomics in determining drug-induced disease will be discussed. The course is designed to acquaint students with the FDA actions and policies implemented to protect human health and with the FDA medical products reporting program and policies for product recalls and withdrawals. (16-0-1)

### **PHA 5387—Pharmacy Case Law**

The course will consist of students presenting in-depth reviews of pharmacy law cases. The students will be required to research a pharmacy law case. The student will present the case as a live lecture to the class and be graded using criteria specified in the course syllabus. (32-0-2)

### **PHA 5389—**

#### **Pharmacy Law of Puerto Rico**

The course covers the laws, regulation, and administrative ordinance that regulate the practice of the pharmacy profession and of the manufacturing, distribution, and dispensing of medicine in Puerto Rico. (32-0-2)

### **PHA 5391—**

#### **The Nuclear Pharmacy Experience**

This course covers and explains what a nuclear pharmacy is and the responsibilities, activities, and knowledge required in order to function as a nuclear pharmacist. The course places emphasis on radiopharmaceuticals (radioactive medication), their mechanisms of action, dose range, method of compounding, and ultimate role in diagnosis of disease and/or therapy. (32-0-2)

### **PHA 5395—Pharmacy Administrative Research**

Students, under the guidance and supervision of one or more pharmacy administration faculty members, will perform individual research projects. Students will be involved in both the planning and execution of the research project. (0-96-2)

### **PHA 5401—Current Topics in Sociobehavioral Pharmacy**

Special topics, covered by faculty members and visiting scientists, provide students with an understanding of and appreciation for current issues, policies, and procedures in the sociobehavioral pharmacy environment. ([16-48]-0-[1-3])

### **PHA 5511—Survey of Complementary Therapies**

Course provides students with information about complementary therapies, which are frequently seen or could be recommended, for various disease states. Nutritional supplements, herbal remedies, homeopathic remedies, etc; proper dosing, side effects, drug and disease state interactions; considerations in recommending complementary therapies. (32-0-2)

### **PHA 5563—Rounds with Pharmacy Residents**

The course will expand the student's knowledge base on selected topics covered in Therapeutics and Pathophysiology I and II, as well as other related hospital topics. This will be achieved by working through patient and hospital management problems and developing individual pharmacotherapeutic plans while taking into consideration therapeutic, economic,

and operational aspects. **Prerequisites:** PHA 5610 (32-0-2)

### **PHA 5613—Pediatric Pharmacotherapy**

Introduces the student to pharmacotherapy of common pediatric diseases. The course will expand on topics addressed in Therapeutics/Pathophysiology II and present more complex pharmacotherapy issues relating to pediatrics. **Prerequisite:** Therapeutics/Pathophysiology II (32-0-2)

### **PHA 5615—Women's Health**

This course covers topics of importance in women's health and examines issues that affect women of all ages, from the early reproductive years to the late postmenopausal years. The subject matter encompasses a variety of topics, including contraception, infertility, health in pregnancy, menopausal health, and eating disorders. The role of the pharmacist in the optimal provision of drug therapy and preventive health is emphasized. **Prerequisite:** P3 Standing (32-0-2)

### **PHA 5617—Landmark Clinical Trials and Their Impact on Practice**

The course will cover pivotal clinical trials that have influenced the way medications are used in clinical practice. Emphasis is placed on literature evaluation and interpretation. Students will have the opportunity to communicate this information through open discussion and formal presentations. **Prerequisite:** Therapeutics/Pathophysiology I **Corequisite:** Therapeutics/Pathophysiology II (32-0-2)

### **PHA 5619—Introduction to Geriatric Issues in Pharmacy**

Students taking this course will become familiar with the changing demographics of the elderly population and the impact this will have on health care. Students will experience the challenges of the elderly by participating in various exercises such as interviewing an elderly patient, tasting nutritional supplements, preparing a living will, and sharing stereotypes of the elderly. (32-0-2)

### **PHA 5623—Hispanic Health**

Course examines the health status and the cultural, social, economic, and environmental factors that affect the health and delivery of health care to Hispanics residing in the United States. The health status and diseases of Hispanic populations are compared to other ethnic groups. The factors associated with differences in disease frequency and specific barriers affecting access to health care are examined. Resources available to improve health and pharmaceutical care delivery to Hispanic patients are addressed. (32-0-2)

### **PHA 5627—Adult Acute Care Medicine**

Adult Acute Care Medicine will expand the student's knowledge base on selected topics covered in Therapeutics and Pathophysiology I, as well as other related topics. The course will improve the student's understanding of acute care medicine in the adult population, while focusing on frequent complications of common disease states and the unique way they are managed in the acute care setting. In addition, it will include a review of common procedures and devices used in the inpatient setting. Requires P3

standing. **Prerequisites:** PHA 5610 Therapeutics and Pathophysiology I, P3 Standing (32-0-2)

### **PHA 5629—Current Topics in Ambulatory Care Practice**

This course provides students with the ability to appreciate and understand the role of the pharmacist in the medication selection and use process to optimize patient outcomes in the ambulatory care setting. Basic understanding of therapeutic assessment and planning with collaborative drug therapy management of selected chronic diseases is emphasized. **Prerequisite:** Therapeutics/Pathophysiology I **Corequisite:** Therapeutics/Pathophysiology II (32-0-2)

### **PHA 5633—Introduction to Health Education Promotion**

This course provides an introduction to the field of health education promotion. It will guide participants through multiple steps in the development of health education promotion that can be implemented in their worksites or communities. (32-0-2)

### **PHA 5635—Applied Medicinal Chemistry**

The course describes the principles of structure activity relationships for several pharmacological classes of drugs. Students evaluate several case scenarios and select the most appropriate therapeutic option, relying heavily on the chemical structures of available drug products. (32-0-2)

### **PHA 5637—History of Pharmacy**

This course reveals the proud heritage of the profession of pharmacy and its service to humanity. Significant drug discoveries will be examined as well

as individuals who contributed to the evolution of pharmacy. Selected drugs and plants of historical value will be described. Evolution of pharmacy education and pharmaceutical manufacturing will be presented. (32-0-2)

#### **PHA 5639—Clinical Neuropsychopharmacology**

This course will incorporate lecture, classroom discussion, student presentations, and clinical monitoring of a patient with a neurological or a psychiatric disorder. The course is designed to introduce students to advanced concepts in the pharmaceutical care of the mentally ill patient. **Prerequisite:** P3 standing. (32-0-2)

#### **PHA 5641—Controversies in Therapeutic Drug Monitoring**

This course is a survey of current controversies in therapeutic drug monitoring. Class format will consist of discussion and debate with the participants taking sides of an issue. Topics will include issues dealing with all aspects of the therapeutic drug monitoring. Application of previous course material including pharmacokinetics and statistics is required. (32-0-2)

#### **PHA 5991—Research in Pharmacy Practice**

Students, under the direction of one or more pharmacy practice faculty members, will perform individual research projects. Projects may involve direct patient care or translational research (i.e., pharmacokinetics, pharmacogenomics). Semester credits must be negotiated with the adviser and approved by the department chair prior to the start of any work. Students will be involved in both the planning and execution of the research project. (0-[48-144]-[1-3])

#### **PHA 5993—Literature Research in Pharmaceutical Sciences**

Directed reading, evaluation, and analysis of scientific literature in the field of pharmacology, pharmaceuticals, biopharmaceutics, pharmacokinetics, drug delivery systems, pharmaceutical technology, biotechnology, toxicology, and others. Students will be mentored and trained in retrieval of scientific information, building hypothesis, and writing papers and reviews. ([16-32]-0-[1-2])

#### **PHA 5995—Research in Sociobehavioral and Administrative Pharmacy I**

One to three semester credits are awarded on the basis of 48 laboratory hours per credit for individual work conducted by students under the direction/supervision of one or more faculty members. Students perform individual research in sociobehavioral and administrative pharmacy, including the planning, execution, and analysis of a project. (0-[48-144]-[1-3])

#### **PHA 5997—Research in Sociobehavioral and Administrative Pharmacy II**

One to four semester credits are awarded on the basis of 48 laboratory hours per credit for individual work conducted by students under the direction/supervision of one or more faculty members. Students perform individual research in sociobehavioral and administrative pharmacy, including the planning, execution, and analysis of a project. Students are involved in all aspects of the research project. **Prerequisite:** Research in Sociobehavioral and Administrative Pharmacy I (0-[48-192]-[1-4])

### **PHA 5999—Research in Pharmaceutical Sciences**

Three or four semester credits are awarded on the basis of 48 laboratory hours per credit. Individual work by undergraduate students under the direction and supervision of one or more faculty members. With the professor, students are involved in planning and executing an approved research project using basic techniques of scientific research. (0-[144-160]-[3-4])

### **PHA 6301—Statistical Methods in Pharmacy**

Course focusing on inferential statistics for students interested in conducting quantitative research in pharmacy. It is designed to enable students to gather data and apply experimental-design models toward improving the efficiency of pharmaceutical and health care services. **Prerequisite:** PHA 6300. (48-0-3)

### **PHA 6441—Health Care Entrepreneurship**

This course will prepare students to compete as entrepreneurs in the health care sector. The goal of the course is to equip students with the background needed to evaluate business opportunities, form management teams, raise capital, compete in markets, and manage a new venture. This course will build on the concepts presented in Pharmaceutical Marketing and Pharmacy Management. **Prerequisites:** PHA 4310 Pharmaceutical Marketing and PHA 6440 Pharmacy Management (32-0-2)

### **PHA 7790C—Research Project Continuation**

Students who are unable to complete the Research Project (PHA 7790) in one semester must register for PHA 7790C in each successive semester until successfully completing the research project. This registration ensures continued academic support and access to library resources. **Prerequisite:** PHA 7790 Research Project (0-48-1)

### **PHA 7890—Advanced Practice Experience: Fifth Course Option**

An additional, optional advanced practice experience for postbaccalaureate students, this course provides additional depth or breadth of practice knowledge and skills. It may also be used to meet the college elective requirements. **Prerequisite:** Successful completion of all didactic coursework. (0-160-4)

## Student Organizations

### Student Council

Student Council is the official voice of all students. The organization is open to all students and welcomes proposals and participation from the entire student body. Its responsibilities include collecting and expressing student opinion, dispensing funds for student activities, acting as liaison for the student body, promoting pharmacy, supporting club and class activities, and working to improve the quality of life for students at the College of Pharmacy.

### Other Organizations

Many student organizations addressing various professional and practice-related interests are also open for student membership including:

- Academy of Managed Care Pharmacy
- Academy of Students of Pharmacy/  
American Pharmaceutical Association
- Alpha Omega Christian Fellowship  
International
- Alpha Zeta Omega
- American Association of  
Pharmaceutical Scientists
- American Society of Consultant  
Pharmacists
- Florida Society of Health-System  
Pharmacists—Student Chapter
- International Pharmacy Student  
Association
- Kappa Psi
- National Community Pharmacists  
Association—Student Chapter
- Phi Delta Chi
- Phi Lambda Sigma
- Rho Chi
- Student National Pharmaceutical  
Association

## College of Pharmacy Faculty

### Biochemistry

Chairman and Professor: **R. E. Block**  
| Professors: **E. E. Groseclose, K. V. Venkatachalam** | Assistant Professor:  
**W. G. Campbell**

### Microbiology

Chairman and Professor: **H. Hada** |  
Professors: **D. Burris, H. E. Laubach**  
Associate Professor: **K. Davis** | Assis-  
tant Professor: **B. Mayi**

### Physiology

Chairman and Professor:  
**W. Schreier** | Professors: **H. Mayro-  
vitz, S. Taraskevich** | Associate  
Professor: **Y. Zagvazdin** | Assistant  
Professor: **L. Lyons**

### Pharmaceutical Sciences

Chair and Associate Professor:  
**M. Clark** | Professors: **L. Cubeddu,  
W. D. Hardigan, A. Malavé, H.  
McLean, R. Speth** | Associate Profes-  
sors: **A.M. Castejon, Y. Krishnaiah, J.  
Rey** | Assistant Professors: **R. Ansari,  
L. Arce-Malavé, A. Lympelopoulos,  
E. Nieves, H. Omidian, M. Rawas-  
Qalaji, E. Santini, A. Torres-Reverón**  
| Clinical Assistant Professors: **R.  
Finkel, D. M. Gazze**

### Sociobehavioral and Administrative Pharmacy

Chair and Professor: **M.S. Carvajal**  
| Professor: **L. Lai** | Associate  
Professors: **C. Harrington, S.  
Rabionet** | Assistant Professors:  
**G. Alvarez, G. Armayor, N.  
Khanfar, S. Leonard, I. Popvici,  
A. Perez Rivera, N. Sangasubana,  
B. Soto-Torres** | Instructor: **D. Vacca**



## Pharmacy Practice

Chair and Assistant Professor: **W. Wolowich** | Associate Professors: **K. Clauson, L. Deziel-Evans, M. L. Glover, M. Seamon, A. Zapantis** | Assistant Professors: **H. Anderson, K. Ayala, S. Ballard, S. Benavides, N. Borja, J. Caballero, S. Elrod, E. Frenzel-Shepherd, A. Garcia, T. Gauthier, B.J. Harris, J. Marino, J. McLaughlin-Middlekauff, M. Metzner, B. Ortiz, E. Sherman, D. Singh, J. Steinberg, W. Wolowich** | Clinical Professor: **A. Silvagni** | Clinical Assistant Professors: **F. Colón Pratts, J. Fass, E. Rice** | Academic Facilitators/Instructors: **J. Marin, F. Sircar-Ramsewak, L. Torres Flores, J. Varela**

## Experiential Sites

The following institutions are affiliated with the College of Pharmacy for experiential education.

- A.G. Holley State Hospital  
Lantana, Florida
- All-Med Infusion Services  
Miami Lakes, Florida
- American Lung Association  
Fort Lauderdale, Florida
- American Pharmaceutical Services  
Longwood, Florida
- American Pharmacists Association  
Washington, D.C.
- Apotex Corporation  
Weston, Florida
- APS Healthcare  
San Juan, Puerto Rico
- Arecibo, PR VA  
Arecibo, Puerto Rico
- Arnold Palmer Hospital  
for Women and Children  
Orlando, Florida
- Arthur's Original Pharmacy  
Tamarac, Florida
- ASCP  
Alexandria, Virginia
- Aventura Hospital  
and Medical Center  
Aventura, Florida
- Baptist Hospital  
Miami, Florida
- Bascom Palmer Eye Institute  
Miami, Florida
- Bay Medical Center  
Panama City, Florida
- Bay Pharmacy  
St. Petersburg, Florida
- Bay Pines VAMC  
Bay Pines, Florida
- Bayamon Medical Plaza  
Bayamon, Puerto Rico
- Bennett Elementary School  
Fort Lauderdale, Florida
- Bethesda Memorial Hospital  
Boynton Beach, Florida
- Bethune Elementary  
Hollywood, Florida
- Bioscrip  
Fort Lauderdale, Florida
- Boca Pharmacy  
& Home Health Center  
Boca Raton, Florida
- Boca Raton Community Hospital  
Boca Raton, Florida
- Broward County  
Health Department  
Fort Lauderdale, Florida
- Broward County Public Schools  
Youth Mentoring Programs  
Fort Lauderdale, Florida
- Broward General Medical Center  
Fort Lauderdale, Florida
- Cape Coral Hospital  
Cape Coral, Florida
- Cardinal Health  
Fort Myers, Florida
- Centers for Disease Control  
Atlanta, Georgia

- Cedars Medical Center  
Miami, Florida
- Center Pharmacy  
Cape Coral, Florida
- Center Pharmacy  
St. Petersburg, Florida
- Central Florida  
Family Health Center—Alfaya  
Orlando, Florida
- Central Florida  
Family Health Center  
Sanford, Florida
- Central Florida Family  
Health Center—Hoffner  
Orlando, Florida
- Centro de Cuidado Diurno y Desarrollo  
Pediátrico San Miguel  
Ponce, Puerto Rico
- Centro de Envejeciente Cruz Espada  
Ponce, Puerto Rico
- Centro Esperanza Para la Vejez  
Cruz Espada  
Ponce, Puerto Rico
- Children's Diagnostic &  
Treatment Center  
Fort Lauderdale, Florida
- Circles of Care  
Melbourne, Florida
- City Diplomat Pharmacy  
Fort Lauderdale, Florida
- Cleveland Clinic Hospital  
Fort Lauderdale, Florida
- Cleveland Clinic Outpatient Pharmacy  
Weston, Florida
- Clinical Pharmacology Services  
Tampa, Florida
- Columbia Hospital  
West Palm Beach, Florida
- Columbia Medical Center  
Port St. Lucie, Florida
- Commcare Pharmacy  
Fort Lauderdale, Florida
- Compounding Docs, Inc.  
Boca Raton, Florida
- ComScript/Omnicare Pharmacies  
Boca Raton, Florida
- Consejo de Salud de la Comunidad de la  
Playa de Ponce, Inc.  
Ponce, Puerto Rico
- Consultant Pharmacy Services, Inc.  
St. Petersburg, Florida
- Cooperative Feeding Program  
Fort Lauderdale, Florida
- Coral Gables Hospital  
Coral Gables, Florida
- Coral Springs Medical Center  
Coral Springs, Florida
- Covenant Hospice, Inc.  
Pensacola, Florida
- CuraScript Pharmacy  
Orlando, Florida
- CVS  
Florida
- Delray Medical Center  
Delray Beach, Florida
- Doctors Hospital  
Coral Gables, Florida
- Drug Topics  
Montvale, New Jersey
- Express Care Pharmacy  
Boynton Beach, Florida
- Express Care Pharmacy  
Boca Raton, Florida
- Express RX  
Greenacres, Florida
- Fairway Elementary  
Miramar, Florida
- Family Health Center East  
Orlando, Florida
- Family Health Center  
of Southwest Florida  
Fort Myers, Florida
- Farmacia El Apotecario  
Ponce, Puerto Rico
- Farmacia El Tuque  
Ponce, Puerto Rico
- Farmacia La Aurora  
Yauco, Puerto Rico
- Farmacia La Concepcion  
Yauco, Puerto Rico
- Farmacia La Fe #2  
Ponce, Puerto Rico

- Farmacia La Fe #3  
Santa Isabel, Puerto Rico
- Farmacia Lorraine  
Ponce, Puerto Rico
- Farmacia Lourdes  
Ponce, Puerto Rico
- First Call for Help of Broward Inc.  
Fort Lauderdale, Florida
- Florida Hospital—  
Celebration Health  
Celebration, Florida
- Florida Hospital  
Outpatient Clinic  
Orlando, Florida
- Florida Hospital—East Campus  
Orlando, Florida
- Florida Hospital—South Campus  
Orlando, Florida
- Florida Hospital—Waterman  
Tavares, Florida
- Florida I.V. Services  
Davie, Florida
- Florida Medical Center  
Fort Lauderdale, Florida
- Florida Pharmacy Association  
Tallahassee, Florida
- Florida Poison Info Center  
Tampa, Florida
- Florida Poison Information  
Center—Miami  
Miami, Florida
- Food and Drug Administration—CDER—  
Office of Information Management  
Rockville, Maryland
- Food and Drug Administration—Division  
of Communications Management  
Rockville, Maryland
- Food and Drug Administration—  
Office of Generic Drugs  
Rockville, Maryland
- Food and Drug Administration—  
Office of Special Health Issues  
Rockville, Maryland
- Fort Myers VA Outpatient Clinic  
Fort Myers, Florida
- FSHP  
Tallahassee, Florida
- Gainesville VAMC  
Gainesville, Florida
- Gardens Drugs  
Palm Beach Gardens, Florida
- Good Samaritan Medical Center  
West Palm Beach, Florida
- H. Lee Moffitt Cancer Center  
Tampa, Florida
- Hallandale Adult Community Center  
Hallandale, Florida
- Harrington's Professional Arts Pharmacy  
Naples, Florida
- Health Care District of Palm Beach County  
West Palm Beach, Florida
- Health Care District of Palm  
Beach County—Delray  
Delray Beach, Florida
- Health Care District of Palm Beach  
County—Riviera Beach  
Riviera Beach, Florida
- Health First Infusion  
Riviera, Florida
- Health Park Medical Center  
Fort Myers, Florida
- Health Script Pharmacy  
Orlando, Florida
- Health South Doctors Hospital  
Coral Gables, Florida
- Health South Rehabilitation Hospital  
Miami, Florida
- Health South/Sunrise  
Rehabilitation Center  
Sunrise, Florida
- Helios Pain and Psychiatry Center  
Tampa, Florida
- Hialeah Hospital  
Hialeah, Florida
- HIMA  
Caguas, Puerto Rico
- Hogar San Miguel  
Ponce, Puerto Rico
- Holy Cross Hospital  
Fort Lauderdale, Florida
- Hospice of Palm Beach County  
West Palm Beach, Florida

- Hospice of the Florida Suncoast  
Largo, Florida
- Hospital Andres Grillasco  
Ponce, Puerto Rico
- Hospital Auxilio Mutuo  
San Juan, Puerto Rico
- Hospital Damas  
Ponce, Puerto Rico
- Hospital Dr. Pila  
Ponce, Puerto Rico
- Hospital Episcopal Cristo Redentor  
Guayama, Puerto Rico
- Hospital Interamericano de  
Medicina Avanzada  
Caguas, Puerto Rico
- Hospital Metropolitano  
Arecibo, Puerto Rico
- Hospital Oncologico  
San Juan, Puerto Rico
- Hospital Ramon  
Emeterio Betances  
Mayaguez, Puerto Rico
- Hospital San Cristobal  
Ponce, Puerto Rico
- Hospital San Francisco  
San Juan, Puerto Rico
- Hospital San Lucas II  
Ponce, Puerto Rico
- Hospital San Pablo  
Bayamon, Puerto Rico
- Hospital Universitario  
San Juan, Puerto Rico
- Humana Inc.  
Miramar, Florida
- Humana Health Plan  
Ponce, Puerto Rico
- Human Resource Health Center  
Miami, Florida
- Imperial Point Medical Center  
Fort Lauderdale, Florida
- Indian Health Service—Acomita  
San Fidel, New Mexico
- Indian Health Service  
Cherokee, North Carolina
- Indian Health Service  
Fort Thompson, South Dakota
- Indian Ridge Middle School  
Davie, Florida
- Indian River Memorial Hospital  
Vero Beach, Florida
- InFuPharma  
Hollywood, Florida
- Infusion Technologies, Inc.—Jacksonville  
Jacksonville, Florida
- Infusion Technologies, Inc.  
North Miami, Florida
- Infusion Technologies, Inc.—Tampa  
Tampa, Florida
- JFK Medical Center  
Atlantis, Florida
- Jackson Memorial Hospital  
Miami, Florida
- Jackson Memorial  
Long Term Care Center  
Miami, Florida
- Jackson South Community Hospital  
Miami, Florida
- James Haley VAMC Tampa  
Tampa, Florida
- Junior Achievement of South Florida  
Pompano Beach, Florida
- Junior Achievement of the Palm Beaches  
West Palm Beach, Florida
- Jupiter Medical Center  
Jupiter, Florida
- Kendall Regional Medical Center  
Miami, Florida
- Kindred Healthcare—Boca Raton  
Boca Raton, Florida
- Kindred Hospital—Coral Gables  
Coral Gables, Florida
- Kindred Hospital—Fort Lauderdale  
Fort Lauderdale, Florida
- Kindred Hospital—Hollywood  
Hollywood, Florida
- Kings Drugstore  
Okeechobee, Florida
- Kmart Pharmacy  
Puerto Rico
- KOS Pharmaceutical  
Weston, Florida

- Larkdale Elementary  
Lauderhill, Florida
- Lawnwood Pavilion  
Fort Pierce, Florida
- Lawnwood Regional Medical Center  
Fort Pierce, Florida
- Lee Memorial Hospital  
Fort Myers, Florida
- Leesburg Regional Medical Center  
Leesburg, Florida
- Lower Brule Health Center  
Pharmacy—Indian Health Service  
Lower Brule, South Dakota
- Malcolm Randall Gainesville  
VA Medical Center  
Gainesville, Florida
- Mallinckrodt/Tyco Healthcare  
Fort Lauderdale, Florida
- Mallinckrodt/Tyco Healthcare  
Miami, Florida
- Manatee Memorial Hospital  
Bradenton, Florida
- Martin Memorial Medical Center  
Stuart, Florida
- Mayaguez VA  
Mayaguez, Puerto Rico
- Mease Dunedin Hospital  
Dunedin, Florida
- Medic Pharmacy and Surgical  
Fort Lauderdale, Florida
- Medical Card Systems  
San Juan, Puerto Rico
- Medicap Pharmacies, Inc.  
Palm Springs, Florida
- Medicine Shoppe  
Dunedin, Florida
- Medicine Shoppe—Tampa  
Tampa, Florida
- Medicine Shoppe/Kings Drug Store  
Okeechobee, Florida
- Memorial Hospital  
Miramar, Florida
- Memorial Hospital of Tampa  
Tampa, Florida
- Memorial Hospital Pembroke  
Pembroke Pines, Florida
- Memorial Hospital West  
Pembroke Pines, Florida
- Memorial Primary Care  
Hollywood, Florida
- Memorial Regional Hospital  
Hollywood, Florida
- Memorial South Center  
Hollywood, Florida
- Mercy Hospital  
Miami, Florida
- MHA of Broward—I'm Thumbody  
Lauderhill, Florida
- MHA of Broward—Listen to Children  
Lauderhill, Florida
- MHA of Broward—Thumbody, Too  
Lauderhill, Florida
- Miami Beach Community  
Health Center  
Miami Beach, Florida
- Miami Children's Hospital  
Miami, Florida
- Miami VA Oakland Park  
Outpatient Clinic  
Fort Lauderdale, Florida
- Miami VAMC  
Miami, Florida
- Mikimbin Pharmacy  
Miami, Florida
- Milton Medical Drug Co.  
Miami Beach, Florida
- Morales Pharmacy  
Miami, Florida
- Morton Plant Hospital  
Clearwater, Florida
- Mount Sinai Medical Center  
Miami Beach, Florida
- NACDS  
Alexandria, Virginia
- Naples Community Hospital  
Naples, Florida
- Naval Hospital  
Jacksonville, Florida
- Navarro's  
Florida
- NeighborCare Pharmacies  
Deerfield Beach, Florida

- Neighborhood Drugs  
Tamarac, Florida
- North Broward Medical Center  
Pompano Beach, Florida
- North Florida Regional Medical Center  
Gainesville, Florida
- North Ridge Medical Center  
Fort Lauderdale, Florida
- North Shore Medical Center  
Miami, Florida
- Northside Medical Center Pharmacy  
Miami, Florida
- Northwest Medical Center  
Margate, Florida
- Nova Infusion & Compounding  
Pharmacy, Corp.  
Bayamon, Puerto Rico
- NSU Clinic Pharmacy  
Fort Lauderdale, Florida
- NSU—College of Pharmacy  
Fort Lauderdale, Florida
- NSU—Ponce, Puerto Rico  
Ponce, Puerto Rico
- NSU—WPB  
Palm Beach Gardens, Florida
- Oakwood Center of the Palm Beaches  
West Palm Beach, Florida
- Optima Infusion Pharmacy  
Dorado, Puerto Rico
- Option Care—Miami  
Miramar, Florida
- Option Care—Fort Myers  
Fort Myers, Florida
- Orange County Medical Clinic  
Orlando, Florida
- Orange Park Medical Center  
Orange Park, Florida
- Orlando Regional Medical Center  
Orlando, Florida
- Orlando Regional South  
Seminole Hospital  
Longwood, Florida
- Orlando Regional St. Cloud Hospital  
St. Cloud, Florida
- Orlando VA Outpatient Clinic  
Orlando, Florida
- Osceola Regional Medical Center  
Kissimmee, Florida
- Palm Beach Gardens Medical Center  
Palm Beach Gardens, Florida
- Palmetto General Hospital—Pharmacy  
Hialeah, Florida
- Park Shore Pharmacy  
Miami Shores, Florida
- Parkway Regional Medical Center  
North Miami Beach, Florida
- Petmed Express, Inc.  
Pompano Beach, Florida
- Pfizer  
Coral Springs, Florida
- Pharmacy Insurance  
Corporation of America  
San Juan, Puerto Rico
- PharMerica  
Pompano Beach, Florida
- PICC Line Plus  
Boynton Beach, Florida
- Pill Box Pharmacy & Surgical  
Pembroke Pines, Florida
- Pill Box Pharmacy—Weston  
Weston, Florida
- Pine Island Drugs, Inc.  
Davie, Florida
- Plantation General Hospital  
Plantation, Florida
- Post Haste Pharmacy  
Hollywood, Florida
- Premier Compounding  
Palm Beach Gardens, Florida
- Procure Pharmacy  
Miramar, Florida
- Public Health Services  
Rockville, Maryland
- Publix  
Florida
- Raulerson Hospital  
Okeechobee, Florida
- Romano's Pharmacy  
Coral Springs, Florida
- Royal Palm Compounding Pharmacy  
Wellington, Florida

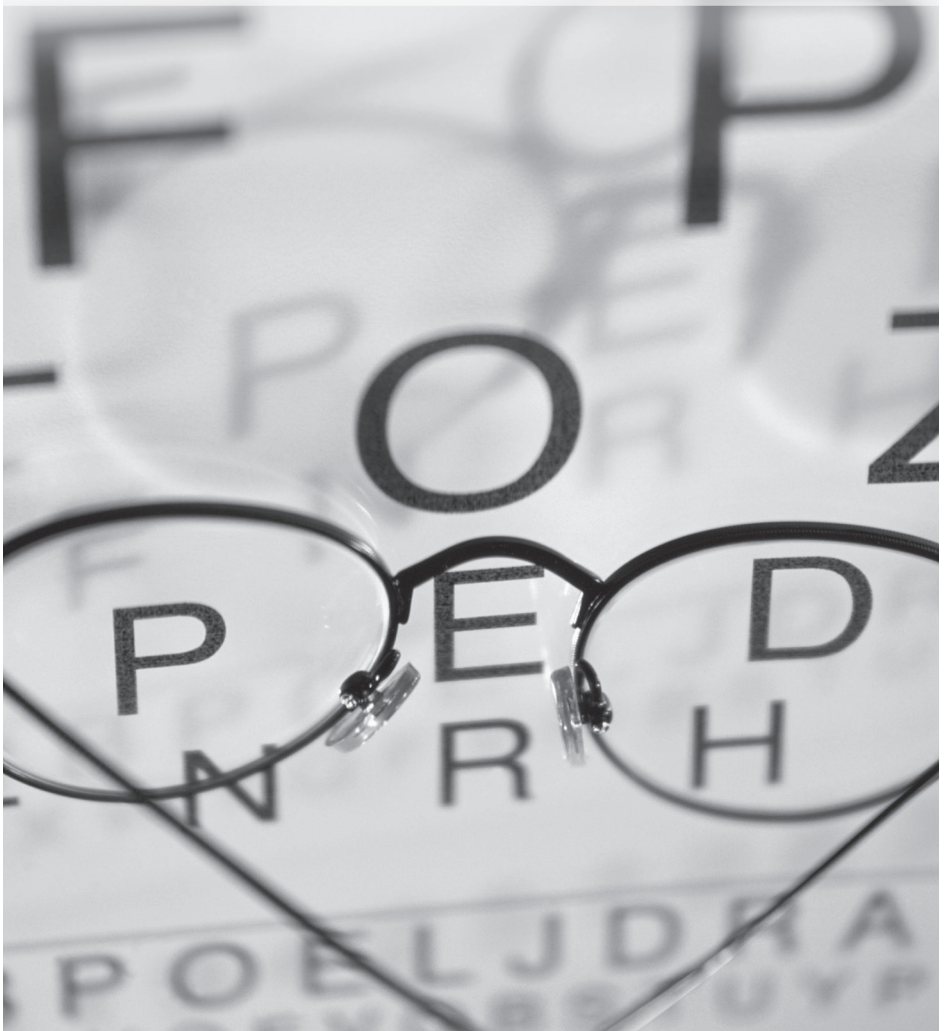
- Ryder Memorial Hospital  
Humacao, Puerto Rico
- San Jorge Children's Hospital  
Santurce, Puerto Rico
- San Juan VA Medical Center  
Bayamon, Puerto Rico
- San Lucas Hospital  
Ponce, Puerto Rico
- San Luis Pharmacy  
San Lorenzo, Puerto Rico
- San Pablo del Este (Fajardo)  
Fajardo, Puerto Rico
- Sand Lake Hospital  
Orlando, Florida
- Sandpiper Elementary School  
Sunrise, Florida
- Sarasota Memorial Hospital  
Sarasota, Florida
- Sarasota VA Primary Care Clinic  
Sarasota, Florida
- Seminole Middle School  
Plantation, Florida
- Seventh Avenue Family Health Center  
Fort Lauderdale, Florida
- Skip's Pharmacy  
Boca Raton, Florida
- SkyeMed Pharmacy  
Pompano Beach, Florida
- South Florida State Hospital  
Pembroke Pines, Florida
- South Miami Hospital  
South Miami, Florida
- South Miami Pharmacy  
Miami, Florida
- South West Florida Medical Center  
Fort Myers, Florida
- Southern Medical Center  
Yauco, Puerto Rico
- Special Care Pharmacy Services  
San Juan, Puerto Rico
- Specialty Care Center  
Fort Lauderdale, Florida
- Specialty Pharmacy Services  
Caguas, Puerto Rico
- St. Joseph's Hospital  
Tampa, Florida
- St. Lucie Medical Center  
Port St. Lucie, Florida
- St. Luke's Hospital  
Ponce, Puerto Rico
- St. Luke's Memorial Hospital  
Jacksonville, Florida
- St. Luke's Memorial Hospital I  
Ponce, Puerto Rico
- St. Mary's Medical Center  
West Palm Beach, Florida
- St. Vincent's Medical Center  
Jacksonville, Florida
- Stranahan High School  
Fort Lauderdale, Florida
- Sunshine State Health Plan  
Sunrise, Florida
- Super Farmacia Juana Diaz  
Juana Diaz, Puerto Rico
- Super Farmacia Nelia  
Sabana Grande, Puerto Rico
- Super Farmacia Rina  
Guayama, Puerto Rico
- SW Florida Regional Medical Center  
Fort Myers, Florida
- Take Stock in Children  
Fort Lauderdale, Florida
- Tampa General Healthcare  
Tampa, Florida
- Target  
Florida
- Tequesta Drugs  
Tequesta, Florida
- Thomas E. Langley Medical Center  
Sumterville, Florida
- Treasure Coast Hospital  
Stuart, Florida
- Tripler Army Medical Center  
Honolulu, Hawaii
- Ulti-Med Pharmacy Services  
Miami, Florida
- United Healthcare  
Sunrise, Florida

- United States Naval Hospital—Jacksonville  
Jacksonville, Florida
- United States Public Health Services  
Rockville, Maryland
- Universal Arts Pharmacy  
Hiialeah, Florida
- University Community Hospital  
Tampa, Florida
- University of Miami  
Miami, Florida
- USCG Air Station Miami Clinic  
Opa-Locka, Florida
- VA Caribbean Healthcare System  
San Juan, Puerto Rico
- VA Central Office Pharmacy  
Benefits Management SHG  
Washington, D.C.
- Vargas Healthcare Management Group  
Wellington, Florida
- VH Pharmacy  
Miami, Florida
- Vista Health Plan  
Sunrise, Florida
- Walgreens  
Florida
- Wal-Mart  
Florida
- Wal-Mart  
Puerto Rico
- Washington Elementary School  
Riviera Beach, Florida
- Wellington Regional Medical Center  
West Palm Beach, Florida
- West Boca Medical Center  
Boca Raton, Florida
- West Palm Beach Veterans Affairs  
Medical Center  
West Palm Beach, Florida
- Westchester General Hospital  
Miami, Florida
- Westside Regional Medical Center  
Plantation, Florida
- Winn-Dixie  
Florida
- Winships Prescription Center  
North Palm Beach, Florida
- Yamato Pharmacy  
Boca Raton, Florida
- Youth Mentoring Program  
Fort Lauderdale, Florida



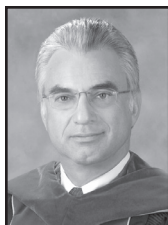


# College of Optometry





# College of Optometry



David Loshin, O.D.,  
Ph.D., FAAO  
Dean

## Mission Statement

The mission of the College of Optometry is to educate and train optometric physicians to practice at the highest level of proficiency, integrity, and professionalism and to provide a multidisciplinary environment that encourages and supports scholarship, community service, and lifelong learning.

## Administration

**David Loshin**, O.D., Ph.D., FAAO  
Dean

**Josephine Shallo-Hoffmann**, Ph.D.,  
FAAO  
Interim Associate Dean for  
Academic Affairs

**Michael Bacigalupi**, M.S., O.D., FAAO  
Assistant Dean for Student Affairs

**Linda Rouse**, O.D., FAAO  
Chief Operations Officer,  
The Eye Institute

**Heidi Wagner**, O.D., M.P.H., FAAO  
Chair, Clinical Education

**Rachel Anastasia Coulter**, O.D., FAAO  
Chair, Didactic Education

## Optometry

Sight is one of our most precious gifts and the optometric physician is dedicated to the preservation and enhancement of this gift. The optometric physician, through academic and clinical training, is able to examine, diagnose, treat, and manage disorders and diseases of the visual system and associated structures. Optometry is constantly evolving as a profession to enable optometric physicians to broaden their scope as the primary eye-care practitioner.

The profession of optometry offers many challenges and rewards to those willing to devote themselves to serving others through a lifetime of study and dedication to excellence.

Today's optometrists practice in urban and rural communities throughout the nation, in individual or group practices, hospital settings, centers for vision research, and in the public health service. They also take part in teaching, research, and public health. Nova Southeastern University College of Optometry stands alone as the only optometric academic institution in the state of Florida.

Furthermore, the college benefits from the integrated multidisciplinary health care programs of the university's Health Professions Division, represented by optometry, osteopathic medicine, dental medicine, pharmacy, and allied health and nursing. Nova Southeastern University takes pride in the optometry degree program, which provides a strong didactic and clinical education.

## Accreditation

The Doctor of Optometry Program at the Nova Southeastern University College of Optometry is fully accredited by The Accreditation Council on Optometric Education (ACOE). The ACOE (243 North Lindbergh Avenue, St. Louis, Missouri; telephone number 800-365-2219) is the accrediting body for professional degree programs offered by all optometric institutions in the United States.

## Requirements for Admission

The College of Optometry selects students based on preprofessional academic performance, Optometry Admission Test (OAT) scores, a personal interview, a written application and letters of evaluation. The requirements are summarized below.

### 1. Minimum of 90 semester credit hours

Prior to matriculation, applicants must have completed a minimum of 90 semester hours of specified coursework at a regionally accredited college or university with a minimum 2.8 cumulative grade point average (GPA) on a four-point scale. At least 30 of these semester hour credits must be taken at a four-year institution of higher education. It is strongly recommended that these include the upper-level science courses.

### 2. Prerequisite course requirements

The college requires the students to earn a grade of 2.0 or better in each of the following required subjects:

- calculus—3 semester hours
- physics, including laboratory—8 semester hours

- biology, including laboratory—8 semester hours
- general chemistry, including laboratory—8 semester hours
- organic chemistry, including laboratory—4 semester hours
- microbiology—3 semester hours
- biochemistry—3 semester hours
- anatomy/physiology—3 semester hours
- social sciences and humanities courses, in any combination—15 semester hours
- English (composition, literature)—6 semester hours

Note: Upon review of a student's individual case, the committee on admissions may require additional coursework and testing as a condition of acceptance.

### 3. Optometry Admission Test

All applicants are required to submit official Optometry Admission Test scores.

Preference will be given to students with a cumulative GPA of 3.0 or higher. Special consideration will be given to students with a baccalaureate degree or who have completed at least 90 semester credit hours at a four-year university or college. There is no requirement that a student must have majored in a specific area; however, a background in biological sciences is recommended. The dean is empowered to evaluate the total qualifications of every student and to consider any unusual circumstances.

## The Application Process

The college participates in the Optometry Centralized Application Service (OptomCAS) for the receipt and processing of all applications. OptomCAS takes no part in the selection of students. The Office of Admissions works on a rolling admissions basis. Applications are accepted from July 15 to April 1 via the OptomCAS centralized application service. Entering students are admitted to the program for the fall term only. Each applicant must submit a completed application from OptomCAS, the supplemental application, and a nonrefundable fee of \$50. Since applications received early in the application cycle will be given priority consideration, it is in the best interest of the prospective student to complete the applications early.

Listed below are the necessary steps to complete the application process.

The application for admission must be submitted electronically through an interactive, Web-based application, which can be accessed at [www.optomcas.org](http://www.optomcas.org).

This application includes:

- completed OptomCAS application
- official transcripts from the registrars of all colleges and universities attended submitted electronically or mailed directly by the college or university
- OAT scores (must be no more than two years old)
- letters of recommendation according to the OptomCAS procedures (may be submitted electronically or mailed directly to OptomCAS)

Upon completion of this centralized application, Nova Southeastern University's College of Optometry requires a secondary application. This application will be sent to the applicant via email upon notification from OptomCAS. The email will contain a link to access the secondary application online.

The applicant should submit the following materials to NSU:

- completed secondary application
- nonrefundable application fee of \$50

The deadline date for submitting the secondary application for NSU's College of Optometry is April 15. It should be sent to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Optometry  
Office of Admissions  
3301 College Avenue  
PO Box 299000  
Fort Lauderdale, Florida 33329-9905.

## Optometry Admissions Test

All applicants are required to take the Optometry Admissions Test. This online examination evaluates an applicant's knowledge of biology, general and organic chemistry, reading comprehension, quantitative reasoning, and physics. It can be taken any time by making an appointment with a Prometric Testing Center. Applicants must wait 90 days before repeating test administrations.

Test information is available at

Optometry Admissions Test  
211 East Chicago Avenue  
Chicago, IL 60611  
Telephone: 800-232-2678  
Web site: <https://www.ada.org/oat/index.html>

## Interview Process

A personal interview is a part of the application process. However, being interviewed is not a guarantee of admission. Upon completion of the applicant's file, a review will be made to determine if the candidate will be granted an interview. Not all applicants will be granted an interview, and only those applicants whose files are complete will be considered. The Office of Admissions will notify selected candidates of the date and time of the interview.

## Notice of Acceptance

Notice of acceptance will be on a rolling or periodic schedule. Early completion of the application process is in the best interest of the student.

## Reapplicants

If you are reapplying to Nova Southeastern University's College of Optometry, please take time to answer these additional questions. In order to fully consider your application, it will be necessary for you to submit the answers to these questions (on a separate sheet of paper) with your secondary application.

- Why are you interested in reapplying to Nova Southeastern University's College of Optometry?
- What have you been doing since your last application to Nova Southeastern University's College of Optometry?
- What changes in your application make you a more competitive candidate?

## Tuition and Fees

- Tuition—Tuition for 2010–2011 (subject to change by the board of

trustees without notice) is \$22,800 for Florida residents and \$27,575 for out-of-state residents. A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.

Eligible students must request in-state tuition on their application. For tuition purposes, a student's Florida residency status (in-state or out-of-state) will be determined at initial matriculation and will remain the same throughout the entire enrollment of the student at NSU. Accordingly, tuition will not be adjusted as a result of any change in residency status after initial enrollment registration.

- Acceptance fee is \$250. This fee is required to reserve the accepted applicant's place in the entering first-year class. This advance payment will be deducted from the first tuition payment, but is not refundable in case of withdrawal. It is payable within two weeks of the applicant's acceptance.
- Deposit is \$750, due April 15, under the same terms as the acceptance fee.
- College laboratory/equipment fee is \$50 per year, due at time of registration.

The financial ability of applicants to complete their training is important because of the limited number of positions available. Applicants should have specific plans for financing four years of professional education. This should include provision for tuition, living expenses, books and equipment, travel, and miscellaneous expenses.

## Financial Aid

The function of the Student Financial Assistance Program at Nova Southeastern University is to help as many qualified students as possible to complete their optometric education. Various loans, scholarships, and grants are available to qualified students to help ease the high cost of an optometric education. These financial assistance programs are described in a separate university publication: *A Guide to Student Financial Assistance*.

## Undergraduate/O.D. Dual Admission Program

Nova Southeastern University Health Professions Division has established a dual admission program with the NSU Farquhar College of Arts and Sciences for a select number of highly motivated, qualified students interested in pursuing both undergraduate and professional studies in optometry. This allows students to receive their doctoral degree in optometry in seven years.

Students must maintain a 3.0 GPA and achieve acceptable scores on the Optometry Admission Test (OAT). Students will spend three years in the undergraduate school and will be awarded a B.S. degree from the Farquhar College of Arts and Sciences upon completion of the first year of professional education at the NSU College of Optometry. Students will receive the O.D. (Doctor of Optometry) degree after four years of training at NSU College of Optometry.

For information and requirements, please contact

Nova Southeastern University  
Farquhar College of Arts and Sciences  
Office of Admissions  
3301 College Avenue  
Fort Lauderdale, Florida  
33314-7796

## Transfer Students

Circumstances may warrant that a student enrolled in one optometric college seeks to transfer to another institution. Any individual wishing to transfer to Nova Southeastern University College of Optometry must meet the following criteria.

The applicant must

1. make a formal application to the NSU College of Optometry Office of Admissions by April 1
2. meet all admissions requirements to NSU College of Optometry, which include submitting official transcripts of all college courses taken, NBEO scores (if taken), and letters of evaluation
3. be in good standing at the transferring institution as documented by a letter from the dean of the transferring institution
4. supply a written statement outlining reasons for request for transfer
5. complete a personal interview

Upon approval of a transfer request, the students will be notified in writing of their standing at NSU and the requirements that they must complete. Before being permitted to enter clinical rotations at NSU, the transferring student will have to complete and pass the clinical proficiency



examination administered by the NSU College of Optometry.

Decisions on transfer applications are made by the dean's office. The decision will be based on factors that include, but are not limited to, academic record, circumstances leading to the transfer request, available space, and admissions standards. The College of Optometry will evaluate such credit and grant that which is appropriate. Send application and documentation to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Optometry  
Office of Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905

### **Promotion, Suspension, Dismissal, and Readmission**

The policies for promotion, suspension, dismissal, and readmission are outlined in the *College of Optometry Student Handbook*, which is revised, updated, and distributed annually to all optometry students.

### **Requirements for Graduation**

In order to be eligible for the degree of Doctor of Optometry, each student shall

1. have satisfactorily completed the program of study required for the degree, including all assignments, as outlined in this catalog
2. have satisfactorily met all financial and library obligations
3. have **passed** Part I and **taken** Part II of the National Board Examination, documented by sending a copy of test

scores, certified by the NBEO, to the dean or his designee

4. have obtained a baccalaureate degree

Note: The College of Optometry awards a baccalaureate degree to those who do not possess a baccalaureate degree and who complete 90 credit hours of undergraduate work, plus two years of optometric study at NSU.

5. attend in person commencement rehearsal and the commencement program, at which time the degree is conferred

The college reserves the right, and the student, by his or her act of matriculation, concedes to the college the right to require withdrawal at any time the college deems it necessary to safeguard its standards of scholarship, professional behavior, and compliance with regulations or for other reasons as are reasonably appropriate.

### **Course of Study**

The Doctor of Optometry degree is awarded after successful completion of four years of professional study. The didactic focus of the first two years is in the basic sciences, including biochemistry, microbiology, anatomy, physiology, pharmacology, optics, and the vision sciences. Some of the basic science courses are taught in combined classes with other health care students. Concurrently, students initiate the study of general optometric theory and methods; general pathology; and the diagnosis, treatment, and management of binocular vision anomalies and ocular disease in preparation for direct patient care in our primary care clinic.

In the third academic year, students study contact lenses, pediatric, geri-

atric, and rehabilitative optometry and develop a deeper understanding and ability to diagnose, treat, and manage increasingly complex conditions concerning anomalies of vision development and ocular disease. Additionally, students begin training in the primary care clinic by providing direct patient eye care.

The fourth year of the academic program is entirely clinical with intensive training in university-based or affiliated primary, secondary, and tertiary care facilities. These include clinics dealing with contact lenses, pediatrics, binocular vision, low vision, and geriatric issues. Students also receive training in medical/surgical tertiary care settings. By the completion of the program, our students have been trained to be optometric physicians capable of providing quality eye care.

### **Extended (Five-Year) Doctor of Optometry Degree**

The College of Optometry has instituted an extended program leading to the Doctor of Optometry (O.D.) degree. The extended program is designed for individuals who are returning to school after an absence, are changing professional fields, or who require a lighter course load initially because of family or other obligations. Students in the extended program take courses with the full time students but with a reduced course load. Coursework covered in the first two years of the traditional full-time program is covered in three years in the extended program. The last two years of both programs are identical. The curriculum and graduation requirements for the extended and full-time programs are the same. The enrollment for the extended program is limited. The dean

of the College of Optometry will make the final determination on eligibility for the extended program.

Tuition for 2010–2011 (subject to change by the board of trustees) is \$18,789 for Florida residents and \$22,270 for out-of-state residents for the first three years. Tuition reverts to the regular rate for the fourth and fifth years.

### **Student Organizations**

The College of Optometry Student Government Association (OSGA) is the official voice of all optometry students. The OSGA welcomes input and participation from the entire student body. Its responsibilities include collecting and expressing student opinion, dispensing funds for student activities, acting as liaison for the student body, promoting optometry, supporting club and class activities, and working to improve the quality of life for students at the College of Optometry.

**Other Organizations**—Many other student organizations addressing various professional and practice-related interests are open for student membership, including the following:

- American Academy of Optometry
- American Optometric Student Association
- Beta Sigma Kappa
- Canadian Association of Optometry Students
- College of Optometrists in Vision Development
- Fellowship of Christian Optometrists International
- Florida Optometric Student Association
- Gold Key Honor Society

- National Optometric Student Association
- Nova Optometric Practice Management Association
- Optometric Student Association for Ocular Disease
- Student Volunteers in Optometric Services to Humanity

### **Master of Science in Clinical Vision Research Graduate Program**

NSU College of Optometry has a two-year, 45-credit, all-online Master of Science in Clinical Vision Research (CVR) program. This program is designed to help optometrists, optometric educators, optometric students, and other professionals enhance their ability to perform clinical research. This innovative program includes curricula leading to a master of science in CVR. The program requirements may be completed at home or a library at times convenient to the student.

#### **Core Courses**

- CVR 7200—Clinical Research Ethics
- CVR 7300—Fundamentals of Biostatistics
- CVR 7310—Principle of Statistical Inference
- CVR 7400—Clinical Research Design
- CVR 7500—Information Science for Clinical Research
- CVR 7600—Introduction to Research Funding and Proposal Development
- CVR 7700—Presentation, Evaluation, and Publication of Clinical Vision Research
- CVR 8220—Epidemiology

To be admitted to the Master of Science in Clinical Vision Research program, applicants must have completed one of the following:

- earned a previous clinical (e.g., O.D., D.O., M.D.) or graduate degree
- earned a baccalaureate degree with a minimum grade point average of 3.0
- NSU third-year optometry students who have passed part I of the NBEO

Applicants whose grade point average is below 3.0 must achieve a minimum average score of 1100 on the Graduate Record Examination (GRE). An average score in the 50th percentile or higher on either the OAT or MCAT may be substituted.

Applicants from countries in which English is not the official language are required to submit scores from the Test of English as a Foreign Language (TOEFL) with a minimum computer score of 213.

For further information regarding the program, call (954) 262-1132 or 800-356-0026, ext. 21132, or access our Web site at <http://optometry.nova.edu/cvr>, where an application can be downloaded.

Applications should be sent to  
 Nova Southeastern University  
 Enrollment Processing Services (EPS)  
 College of Optometry  
 Graduate Program Admissions  
 3301 College Avenue  
 P.O. Box 299000  
 Fort Lauderdale, Florida  
 33329-9905

Tuition for 2010–2011 (subject to change by the board of trustees without notice) is \$410 per credit hour.

## Traditional Four-Year Program Curriculum Outline

The curriculum is revised and modified frequently to meet the demands of the profession. These courses are representative of the overall requirements of the program at the time of publication.

FIRST YEAR—Fall Term			Lecture	Laboratory	Semester Hours
OPT	1011	Histology and Embryology	18	0	1.0
OPTC	1134	Gross Anatomy/Anatomy of the Head and Neck	54	36	4.0
OPT	1233	Biochemistry	54	0	3.0
OPT	1323	Microbiology	54	0	3.0
OPT	1443	Theoretical Optics I	54	0	3.0
OPTL	1443	Theoretical Optics I Lab	0	36	1.0
OPT	1511	Psychophysical Methodology	18	0	1.0
OPT	1724	Optometric Theory and Methods I	36	0	2.0
OPTL	1724	Optometric Theory and Methods I Lab	0	72	2.0
OPT	1831	Contemporary Issues in Optometry	18	0	1.0
<b>Total Semester Hours:</b>					<b>21.0</b>

FIRST YEAR—Winter Term			Lecture	Laboratory	Semester Hours
OPTC	2023	General Neuroanatomy	36	18	2.5
OPTC	2144	General Physiology	72	0	4.0
OPT	2223	Theoretical Optics II	54	0	3.0
OPTL	2223	Theoretical Optics II Lab	0	18	1.0
OPT	2323	Visual Optics	36	0	2.0
OPT	2422	Ocular Anatomy	36	0	2.0
OPT	2522	Visual Neurophysiology	36	0	2.0
OPT	2622	Ocular Motility	36	0	2.0
OPT	2724	Optometric Theory and Methods II	36	0	2.0
OPTL	2724	Optometric Theory and Methods II Lab	0	54	1.5
<b>Total Semester Hours:</b>					<b>22.0</b>

FIRST YEAR—Summer Term			Lecture	Laboratory	Semester Hours
OPT	3122	Ocular Physiology	36	0	2.0
OPT	3344A	Psychophysics/ Monocular Sensory Processes I	36	0	2.0
<b>Total Semester Hours:</b>					<b>4.0</b>

SECOND YEAR—Fall Term			Lecture	Laboratory	Semester Hours
OPT	3033	General Pathology	54	0	3.0
OPTC	3244	General Pharmacology I	72	0	4.0
OPT	3344B	Psychophysics/Monocular Sensory Processes II	72	0	2.0
OPT	3434	Ophthalmic Optics I	54	0	3.0
OPTL	3434	Ophthalmic Optics I Lab	0	36	1.0
OPT	3533	Ocular Disease of the Anterior Segment: Diagnosis and Pharmacological Management	54	0	3.0
OPT	3624	Optometric Theory and Methods III	36	0	2.0
OPTL	3624	Optometric Theory and Methods III Lab	0	54	1.5
OPT	4322	Introduction to Binocular Vision	36	0	2.0
OPT	4951A	Community Outreach I	18	0	1.0
<b>Total Semester Hours:</b>					<b>22.5</b>

SECOND YEAR—Winter Term			Lecture	Laboratory	Semester Hours
OPTC	4022	General Pharmacology II	27	0	1.5
OPT	4122	Ocular Pharmacology	27	0	2.5
OPT	4234	Ophthalmic Optics II	54	0	3.0
OPTL	4234	Ophthalmic Optics II Lab	0	36	1.0
OPT	4433	Anomalies of Binocular Vision I	54	0	3.0
OPTL	4433	Anomalies of Binocular Vision I Lab	0	36	1.0
OPT	4524	Optometric Theory and Methods IV	36	0	2.0
OPTL	4524	Optometric Theory and Methods IV Lab	0	54	1.5
OPT	4633	Glaucoma and Vitreoretinal Disease: Diagnosis and Pharmacological Management	54	0	3.0
OPT	4811	Epidemiology	18	0	1.0
OPT	4951B	Community Outreach II	18	0	1.0
<b>Total Semester Hours:</b>					<b>20.5</b>

<b>SECOND YEAR—Summer Term</b>			Lecture	Laboratory	Semester Hours
OPT	1612	Health Systems, Economics, Policy, and Ethics	18	0	1.0
OPT	5411	Clinical Gerontology	18	0	1.0
OPT	7111	Primary Care Clinic I	0	80	2.5
OPT	7112	Clinic Conference	10	0	1.0
OPT	7151	Optical Services Rotation I	0	36	0.5
<b>Total Semester Hours:</b>					<b>6.0</b>

<b>THIRD YEAR—Fall Term</b>			Lecture	Laboratory	Semester Hours
OPT	5022	Anomalies of Binocular Vision II	36	0	2.0
OPTL	5022	Anomalies of Binocular Vision II Laboratory	0	36	1.0
OPT	5122	Contact Lenses I	36	0	2.0
OPTL	5122	Contact Lenses I Laboratory	0	36	1.0
OPT	5233	Ocular and Systemic Eye Disease: Diagnostic, Medical, and Pharmacological Management	54	0	3.0
OPT	5322	Clinical Medicine: Diagnostic and Pharmacologic Management of Systemic Diseases	36	0	2.0
OPTL	5322	Physical Diagnosis Laboratory: Testing, Pharmacologic Aspects, and Injection Techniques	0	18	0.5
OPT	5521	Practice Management I	18	0	1.0
OPT	6322	Rehabilitative Optometry Low Vision	36	0	2.0
OPTL	6322	Rehabilitative Optometry Low Vision Laboratory	0	36	1.0
OPT	7122	Primary Eye Care Clinic II	0	144	2.5
OPT	7161	Optical Services Rotation II	0	36	0.5
<b>Total Semester Hours:</b>					<b>18.5</b>

<b>THIRD YEAR—Winter Term</b>			Lecture	Laboratory	Semester Hours
OPT	6122	Contact Lens II	36	0	2.0
OPTL	6122	Contact Lenses II Laboratory	0	36	1.0
OPT	6233	Neuro-Eye Disease: Diagnostic, Medical, and Pharmacological Management	54	0	3.0
OPT	6521	Practice Management II	18	0	1.0

OPT	6633	Pediatric Optometry and Learning-Related Vision Problems	54	0	3.0
OPTL	6633	Pediatric Optometry and Learning-Related Vision Problems Laboratory	0	36	0.5
OPT	7132	Primary Care Clinic III	0	144	2.5
OPT	7171	Optical Services III	0	16	0.5
OPT	9998	Board Review	18	0	1.0
<b>Total Semester Hours:</b>					<b>14.5</b>

THIRD YEAR—Summer Term			Lecture	Laboratory	Semester Hours
OPT	7146	Primary Care Clinical Externship	0	320	5.5
<b>Total Semester Hours:</b>					<b>5.5</b>

FOURTH YEAR— Fall and Winter Terms*			Lecture	Laboratory	Semester Hours
OPT	7146	Primary Care Clinical Externship	0	320	5.5
OPT	7214	Cornea and Contact Lens Externship	0	240	4.0
OPT	7224	Pediatric and Binocular Vision Externship	0	240	4.0
OPT	7233	Vision Rehabilitation and Geriatric Externship	0	160	2.5
OPT	7308	Medical and Surgical Care Clinical Externship	0	480	8.0
OPT	7408	Clinical Elective Externship	0	480	8.0
OPT	7501	Current Topics in Practice Management	18	0	1.0
<b>Fourth Year Total Semester Hours:</b>					<b>33.0</b>

\* Three-month terms—order of courses will vary.

## Extended Program Curriculum Outline

FIRST YEAR—Fall Term			Semester Hours	
OPT	1011	Histology/Embryology	1.0	
OPTC	1134	Gross Anatomy /Anatomy of the Head and Neck	4.0	

OPT	1233	Biochemistry	3.0
OPT	1323	Microbiology	3.0
OPT	1511	Psychophysical Methodology	1.0
OPT	1831	Contemporary Issues in Optometry	1.0

**Total Semester Hours: 13.0**

### FIRST YEAR—Winter Term

			Semester Hours
OPT	1721	Clinical Optometric Procedures	1.0
OPTC	2023	General Neuroanatomy	2.5
OPTC	2144	General Physiology	4.0
OPT	2422	Ocular Anatomy	2.0
OPT	2522	Visual Neurophysiology	2.0
OPT	2622	Ocular Motility	2.0

**Total Semester Hours: 13.5**

### SECOND YEAR—Fall Term

			Semester Hours
OPT	1443	Theoretical Optics I	3.0
OPTL	1443	Theoretical Optics I Lab	1.0
OPT	1724	Optometric Theory and Methods I	2.0
OPTL	1724	Optometric Theory and Methods I Lab	2.0
OPT	3033	General Pathology	3.0
OPTC	3244	General Pharmacology I	4.0
OPT	4951A	Community Outreach I	1.0

**Total Semester Hours: 16.0**

### SECOND YEAR—Winter Term

			Semester Hours
OPT	2223	Theoretical Optics II	3.0
OPTL	2223	Theoretical Optics II Lab	1.0
OPT	2323	Visual Optics	2.0
OPT	2724	Optometric Theory and Methods II	2.0
OPTL	2724	Optometric Theory and Methods II Lab	1.5
OPTC	4022	General Pharmacology II	1.5
OPT	4811	Epidemiology	1.0
OPT	4951B	Community Outreach II	1.0

**Total Semester Hours: 13.0**

### SECOND YEAR—Summer Term

			Semester Hours
OPT	3122	Ocular Physiology	2.0
OPT	3344A	Psychophysics/ Monocular Sensory Processes I	2.0
<b>Total Semester Hours:</b>			<b>4.0</b>



<b>THIRD YEAR—Fall Term</b>			Semester Hours
OPT 3624	Optometric Theory and Methods III		2.0
OPTL 3624	Optometric Theory and Methods III Lab		1.5
OPT 3533	Ocular Disease of the Anterior Segment: Diagnosis and Pharmacological Management		3.0
OPT 3434	Ophthalmic Optics I		3.0
OPTL 3434	Ophthalmic Optics I Lab		1.0
OPT 3344B	Psychophysics/Monocular Sensory Processes II		2.0
OPT 4322	Introduction to Binocular Vision		2.0
<b>Total Semester Hours:</b>			<b>14.5</b>

<b>THIRD YEAR—Winter Term</b>			Semester Hours
OPT 4122	Ocular Pharmacology		2.5
OPT 4234	Ophthalmic Optics II		3.0
OPTL 4234	Ophthalmic Optics II Lab		1.0
OPT 4433	Anomalies of Binocular Vision I		3.0
OPTL 4433	Anomalies of Binocular Vision I Lab		1.0
OPT 4524	Optometric Theory and Methods IV		2.0
OPTL 4524	Optometric Theory and Methods IV Lab		1.5
OPT 4633	Glaucoma and Vitreoretinal Disease: Diagnosis and Pharmacological Management		3.0
<b>Total Semester Hours:</b>			<b>17.0</b>

<b>THIRD YEAR—Summer Term</b>			Semester Hours
OPT 1612	Health Systems, Economics, Policy, and Ethics		1.0
OPT 5411	Clinical Gerontology		1.0
OPT 7111	Primary Care Clinic I		2.5
OPT 7112	Clinic Conference		1.0
OPT 7151	Optical Service Rotation I		0.5
<b>Total Semester Hours:</b>			<b>6.0</b>

<b>FOURTH YEAR—Fall Term</b>			Semester Hours
OPT 5022	Anomalies of Binocular Vision II		2.0
OPTL 5022	Anomalies of Binocular Vision II Lab		1.0
OPT 5122	Contact Lenses I		2.0
OPTL 5122	Contact Lenses I Lab		1.0
OPT 5233	Ocular and Systemic Eye Disease: Diagnostic, Medical, and Pharmacological Management		3.0

OPT	5322	Clinical Medicine: Diagnostic and Pharmacological Management of Systemic Diseases	2.0
OPTL	5322	Physical Diagnosis Laboratory: Testing, Pharmacological Aspects, and Injection Techniques	0.5
OPT	5521	Practice Management I	1.0
OPT	6322	Rehabilitative Optometry: Low Vision	2.0
OPTL	6322	Rehabilitative Optometry Lab	1.0
OPT	7122	Primary Care Clinic II	2.5
OPT	7161	Optical Services Rotation II	0.5
<b>Total Semester Hours:</b>			<b>18.5</b>

<b>FOURTH YEAR—Winter Term</b>			Semester Hours
OPT	6122	Contact Lenses II	2.0
OPTL	6122	Contact Lenses II Lab	1.0
OPT	6233	Neuro-Eye Disease: Diagnostic, Medical, and Pharmacological Management	3.0
OPT	6521	Practice Management II	1.0
OPT	6633	Pediatric Optometry and Learning-Related Vision Problems	3.0
OPTL	6633	Pediatric Optometry and Learning-Related Vision Problems Lab	0.5
OPT	7132	Primary Care Clinic III	2.5
OPT	7171	Optical Services III	0.5
OPT	9998	Board Review	1.0
<b>Total Semester Hours:</b>			<b>14.5</b>

<b>FOURTH YEAR—Summer Term</b>			Semester Hours
OPT	7146	Primary Care Clinical Externship	5.5
<b>Total Semester Hours:</b>			<b>5.5</b>

<b>FIFTH YEAR—Fall and Winter Terms</b>			Semester Hours
OPT	7214	Cornea and Contact Lens Externship	4.0
OPT	7224	Pediatric and Binocular Vision Externship	4.0
OPT	7233	Vision Rehabilitation and Geriatric Externship	2.5
OPT	7308	Medical and Surgical Care Clinical Externship	8.0
OPT	7408	Clinical Elective Externship	8.0
OPT	7501	Current Topics in Practice Management	1.0
<b>Total Semester Hours:</b>			<b>27.5</b>

# College of Optometry Course Descriptions

Note: Listed at the end of each entry are lecture hours, laboratory hours, and semester hours.

## Medical Sciences

The following courses listed are taught by College of Medical Sciences faculty members.

### OPT 1011—

#### **Histology and Embryology**

General principles of human histology and embryology with detailed histologic view of each tissue of the body. (18-0-1)

### OPTC 1134—Gross

#### **Anatomy: Head and Neck**

Presentation of human body structure. Discusses each body system from a cellular, tissue, and organ perspective. Detailed examination of head and neck regions of the body. Intensive laboratory work studying prosected cadaver material. (54-36-4)

### OPT 1233—Biochemistry

Biochemistry of metabolic pathways; visual, digestive, muscular, respiratory, endocrine systems. Protein structure and chemistry, lipids, nucleic acids, carbohydrates, more complex molecules. Clinical correlations illustrate the basic biochemical mechanisms. (54-0-3)

### OPT 1323—Microbiology

Immunology, bacteriology, mycology, parasitology, virology. Underlying systematics and genetics of parasites, host-parasite interactions. Etiology, demography, and clinical characteristics of disease manifestations that an optometrist may encounter. (54-0-3)

### OPTC 2023—

#### **General Neuroanatomy**

Lecture and laboratory study of gross structures of the brain and spinal cord and the functional relationships among their parts. Emphasizes the major motor and sensory pathways and integrative mechanisms of the central nervous system. (36-18-2.5)

### OPTC 2144—General Physiology

General human physiology from a molecular, cellular, tissue, organ systems approach. Basic principles are discussed and applied to the blood, cardiovascular, pulmonary, renal and gastrointestinal systems, nerve and muscle physiology, and tissue function. Discusses clinical implications. (72-0-4)

### OPT 3033—General Pathology

Introduces pathogenic processes in each organ system; molecular, cellular, tissue, and organ changes. Emphasizes how disease manifests in the eye; signs and symptoms. (54-0-3)

### OPTC 3244—

#### **General Pharmacology I**

Covers drug action, examines classes of drugs used in clinical practice. Emphasizes structure and activity, mode of action, side effects, and toxicity of drug interactions. Stresses pharmacological intervention of pathophysiological processes and standard clinical application of each drug class. (72-0-4)

### OPTC 4022—

#### **General Pharmacology II**

Continuation of General Pharmacology I. (27-0-1.5)

## **Optometric Basic Sciences**

### **OPT 1443—Theoretical Optics I**

Principles of geometric optics, examples, and optometric applications. Linear propagation, reflection, refraction, prisms, thin lenses, and thick lens systems. (54-0-3)

### **OPTL 1443—**

#### **Theoretical Optics I Lab**

Applications and demonstration of concepts and material presented in the Theoretical Optics I lecture OPT 1443. (0-36-1)

### **OPT 1511—**

#### **Psychophysical Methodology**

Principles of classical psychophysical methodologies, including demonstrations and exercises performed by the students. The fundamentals of signal detection and Fourier analysis are introduced in terms of their application to the clinical practice of optometry. (18-0-1)

### **OPT 1612—Health Systems, Economics, Policy, and Ethics**

This course discusses the organization of clinical and public health systems; public health responsibilities for optometrists; health services financing; the health workforce; health policy; licensing and regulation of optometry; ethical issues in optometry; disaster preparedness; abuse reporting and infectious disease control; and current issues in public health optometry. (18-0-1)

### **OPT 1724—Optometric Theory and Methods I**

Concepts of refractive disorders, binocularity, and ocular diseases. Performing an eye examination, patient histories, use of terminology, and data collection. (36-0-2)

### **OPTL 1724—Optometric Theory and Methods I Lab**

Application and skills necessary to perform ocular examinations stressed in OPT 1724. (0-72-2)

### **OPT 1831—Current Issues in Optometry**

Introduces students to optometry's past, so they can better understand the present and future of the optometric profession. History, professional ethics, current practice modes, and professional organizations will be covered. (18-0-1)

### **OPT 2223—Theoretical Optics II**

Continuation of Theoretical Optics I: Advanced Topics in Geometrical Optics and Physical Optics including lens aberrations, ophthalmic instruments, and stops and pupils. Physical Optics will include wave and quantum optics, applications, principles, examples, wave equations, interference, diffraction, coherence, polarization, dispersion, photometry, spectroscopy, lasers and holograms. (54-0-3)

### **OPTL 2223—**

#### **Theoretical Optics II Lab**

Applications and demonstration of concepts and material presented in the Theoretical Optics II lecture OPT 2223. (0-18-1)

### **OPT 2323—Visual Optics**

The eye as optical system: optical and physical components of the eye. Schematic eye models, refractive error correction, dioptrics of the eye, stimulus to accommodation, retinal image size and quality, purkinje images, entoptic phenomena, presbyopia, aphakia, intraocular implants, and ocular radiation effects. (36-18-2)

**OPT 2422—Ocular Anatomy**

Gross and microscopic anatomy of the eye and adnexa. Relationships between tissues; the vascular supply to the eye; the anatomy of the visual pathway; and the embryonic origin of ocular tissues. Eye dissections teach the functional relations between ocular tissues. (36-0-2)

**OPT 2522—****Visual Neurophysiology**

Concepts of visual neurophysiology needed to understand normal visual perception, probable source of visual symptoms associated with various eye and CNS disorders, underlying principles of new clinical diagnostic tests for eye and CNS disease, and current neurophysiological research as it relates to the clinical practice of optometry. (36-0-2)

**OPT 2622—Ocular Motility**

The ocular motor systems and the laws relating to them are detailed in terms of normal neurophysiology and neuroanatomy. The aim of this course is to provide a strong theoretical competence in normal eye movement physiology and the ability to differentiate it from pathology in order to lead the student to adept and confident clinical performance. (36-0-2)

**OPT 2724—Optometric Theory and Methods II**

This course continues the optometric theory and methods sequence with emphasis on intermediate clinical procedures. Topics covered include tonometry, near refraction and presbyopia, objective and subjective refraction, phorias and vergences, and introductory case analysis. (36-0-2)

**OPTL 2724—Optometric Theory and Methods II Lab**

Application and skills necessary to perform ocular examinations stressed in OPT 2724. (0-54-1.5)

**OPT 3122—Ocular Physiology**

General physiological principles and processes. Typical physiologic function of ocular tissues are discussed and contrasted with the outcomes of abnormal physiology as well as the physiological relationship of ocular tissues and the mechanisms of ocular functions. (36-0-2)

**OPT 3344A—Psychophysics/Monocular Sensory Processes I**

A survey of spatial and temporal aspects of monocular visual performance, including theories of brightness perception, color vision, contrast sensitivity, spatial and temporal resolution, recognition of pattern and form, and the perception of flicker and motion. Normal development and perceptual phenomena, testing techniques, and frequently encountered abnormalities are discussed in the context of common experience and optometric practice. (36-0-2)

**OPT 3344B—Psychophysics/Monocular Sensory Processes II**

Continuation of the principles of Psychophysics/Monocular Sensory Processes I. (72-0-2)

**OPT 3434—Ophthalmic Optics I**

Theoretical and practical aspects of corrective lens design in the optical correction of ametropia: physical and optical characteristics of ophthalmic lens materials, aberrations, specifications of lens powers, ophthalmic prism, lens decentration, and multifocal lens design. Selection of lenses and frames. (54-0-3)

**OPTL 3434—****Ophthalmic Optics I Lab**

Hands-on training and experience in the neutralization of single vision and conventional multifocal spectacle lenses and the selection, ordering, fitting, and dispensing of spectacles. (0-36-1)

**OPT 3533—Ocular Disease of the Anterior Segment: Diagnosis and Pharmacological Management**

This course examines principles of diagnosis and management of infectious, inflammatory, congenital, hereditary, and traumatic conditions of the anterior segment of the eye. Topical and systemic pharmacological treatments are emphasized. (54-0-3)

**OPT 3624—Optometric Theory and Methods III**

This course continues the optometric theory and methods sequence with emphasis on intermediate clinical procedures. Topics covered include fundus biomicroscopy and binocular indirect ophthalmoscopy, examination sequence, gonioscopy, exophthalmometry, punctal plugs, dilation and irrigation, pressure patching, foreign body removal, presbyopia, case analysis, and prescribing for refractive errors. (36-0-2)

**OPTL 3624—Optometric Theory and Methods III Lab**

Application and skills necessary to perform clinical testing using examination procedures stressed in OPT 3624. (0-54-1.5)

**OPT 4122—Ocular Pharmacology**

Drugs used in the eye or capable of exerting a pharmacological or toxicological effect on the eye; routes of administration, pathophysiological processes, and treatment regimens. (27-0-2.5)

**OPT 4234—Ophthalmic Optics II**

Absorptive lenses and lens tints/coatings, anisometropia and aniseikonia, corrections for high refractive errors and aphakia, the use and optical design of low vision aids, and the optical and physical characteristics of contact lenses will be discussed. Pertinent topics relating to environmental vision will also be covered. (54-0-3)

**OPTL 4234—****Ophthalmic Optics II Lab**

Hands-on training and experience in the selection, fabrication, fitting, adjustment, neutralization, and dispensing of spectacles; specification and neutralization of progressive addition multifocal lenses. (0-36-1)

**OPT 4322—Introduction to Binocular Vision**

Sensory aspects of binocular vision, neurophysiological foundations. Visual direction, the horopter, binocular fusion, rivalry, stereopsis, aniseikonia, motion in depth, binocular visual neurophysiology, normal development of binocular vision, strabismic and anisometric amblyopia, and normal and anomalous retinal correspondence. Clinical, research-oriented tests and treatments for abnormal binocular visual function. (36-0-2)

**OPT 4433—Anomalies of Binocular Vision I**

Covers the diagnosis and management of accommodative, heterophoric, and eye-movement disorders. The topics discussed include vision development, accommodation, ocular motility, and accommodative-convergence mechanisms. Also presented is a logical

approach to the treatment of certain non-strabismic disorders including lens prescribing and visual training. (54-0-3)

**OPTL 4433—Anomalies of Binocular Vision I Lab**

Application of concepts and material presented in Anomalies of Binocular Vision I lecture OPT 4433. (0-36-1)

**OPT 4524—Optometric Theory and Methods IV**

Advanced testing procedures, indications for their application: three-mirror fundus evaluation, ultrasound techniques, four-mirror gonioscopy, automated visual field theory, posterior segment photography, and procedure and diagnostic coding. (36-0-2)

**OPTL 4524—Optometric Theory and Methods IV Lab**

Practical experience with advanced optometric testing procedures and indications for their application. Procedures stressed include advanced case history, three-mirror fundus lens evaluation, scleral indentation, alternative tonometry techniques (Perkins and tonopen), blood pressure measurement, cycloplegic refraction, trial-frame refraction, A/B-scan ultrasonography, automated visual fields, patient management problems, and anterior and posterior segment photography. (0-54-1.5)

**OPT 4633—Glaucoma and Vitreoretinal Disease: Diagnosis and Pharmacological Management**

This course examines current technologies involved in the diagnosis and management of patients with glaucoma and vitreoretinal disease.

Complete pharmacological management of these conditions is covered in detail, including mechanism of drug action, indications, contraindications, adverse effects, and dosing. (54-0-3)

**OPT 4811—Epidemiology**

A study of basic principles of epidemiology with emphasis on the epidemiology of vision disorders. Topics include disease models, rates and indices, descriptive and analytic studies, screening concepts, major eye studies, control of infectious disease, investigation of an outbreak, epidemiology of vision disorders, and the use of epidemiology in clinical decision making. (18-0-1)

**OPT 4951A—Community Outreach I**

This course discusses the social and behavioral determinants of health and disease; cultural aspects in eye care; health promotion, education, and prevention; and community program planning, monitoring, and evaluation. (18-0-1)

**OPT 4951 B—Community Outreach II**

Continuation of Community Outreach I (18-0-1)

**OPT 5022—Anomalies of Binocular Vision II**

Etiology and visual effects of strabismus and amblyopia. Covers testing, analysis; diagnosis; management of strabismus and amblyopia; and use of lenses, prisms, and vision therapy to ameliorate strabismus and amblyopia. (36-0-2)

**OPTL 5022—Anomalies of Binocular Vision II Lab**

Application of concepts and material presented in Anomalies of Binocular Vision II lecture OPT 5022. (0-36-1)

**OPT 5122—Contact Lenses I**

Introduces contact lenses; explores historical, technical, and clinical aspects of lens materials; terminology; care systems; lens design; fitting; and problem solving. (36-0-2)

**OPTL 5122—  
Contact Lenses I Lab**

Application of concepts and materials presented in Contact Lenses I lecture OPT 5122. (0-36-1)

**OPT 5233—Ocular and Systemic Eye Disease: Diagnostic, Medical, and Pharmacological Management**

This course covers systemic diseases that may present with ocular findings, including key systemic manifestations. Laboratory and imaging evaluation, physical presentation, spectrum of treatment modalities (including both ocular and systemic pharmacologic treatment), and interdisciplinary management are detailed. (54-0-3)

**OPT 5322—Clinical Medicine: Diagnostic and Pharmacologic Management of Systemic Diseases**

Clinical overview of the pathophysiological process of various systemic diseases, their diagnosis, and their pharmacological management. (36-0-2)

**OPTL 5322—Physical Diagnosis Laboratory: Testing, Pharmacologic Aspects, and Injection Techniques**

This laboratory covers the clinical examination of conditions typically

seen in a primary care setting including the physical and neurological examination, laboratory and imaging studies, systemic and ocular injection techniques, and pharmacological management of anaphylaxis. (0-18-0.5)

**OPT 5411—Clinical Gerontology**

Discusses aging from sociological, psychological, and biophysiological perspectives; reviews diagnosis, management of visual conditions, ocular diseases of older adults, and role of optometrists as members of multidisciplinary health care team providing services to community-based, institutionalized geriatric patients. (18-0-1)

**OPT 6122—Contact Lenses II**

Advanced lens applications in specialty cornea and contact lens practice. Options for presbyopia, astigmatism, anterior segment disease, myopia, corneal thinning disorders, keratoconus, and corneal surgery. (36-0-2)

**OPTL 6122—  
Contact Lenses II Lab**

Application and demonstration of concepts and material presented in Contact Lenses II lecture. (0-36-1)

**OPT 6233—Neuro-Eye Disease: Diagnostic, Medical, and Pharmacological Management**

This course covers the clinical diagnosis, management, and treatment of ocular abnormalities seen in patients with neurological disease. Clinical diagnostic processes—including nuclear magnetic imaging, computerized tomography, and vascular ultrasonography—are presented for both ocular and CNS neuropathology. Surgical indications, ocular management, and systemic/ocular pharmaceutical treatment are covered in detail. (54-0-3)



**OPT 6322—Rehabilitative Optometry: Low Vision**

Etiology, demography, and clinical characteristics of low vision needed to understand functional implications of visual impairment. Systematic approach to diagnosis, and management of visual disorders emphasizes improving life quality, functional capacity of the visually impaired by magnification, illumination control, and visual field enhancement. (36-0-2)

**OPTL 6322—Rehabilitative Optometry: Low Vision Lab**

Application and demonstration of concepts and material presented in Rehabilitative Optometry lecture OPT 6322. (0-36-1)

**OPT 5521—Practice Management I**

Employment opportunities; third-party billing; competing for managed care contracts; and selecting a lawyer, accountant, and financial adviser. Analyze balance sheets, negotiate bank loans, and calculate capitation fees. (36-0-2)

**OPT 6521—Practice Management II**

Continuation of Practice Management I. (18-0-1)

**OPT 6633—Pediatric Optometry and Learning-Related Vision Problems**

An introduction to the theory and methods of examining, diagnosing, and managing children and individuals suffering from learning-related vision problems. (54-0-3)

**OPTL 6633—Pediatric Optometry and Learning-Related Vision Problems Lab**

Provides hands-on experience in examination and testing techniques of young children and vision perceptual testing. (0-36-0.5)

**OPT 9998—Board Review (18-0-1)**

**Optometry Clinical Education**

**OPT 7111—Primary Care Clinic I**

Patient examinations in a primary care setting under supervision of residents, faculty members: refractive conditions, visual system disorders. Grand rounds, journal reviews, case reports, and advanced ophthalmic techniques. Also included in this course is a review and discussion of patient data leading to proper clinical diagnosis and patient management. Emphasizes integration of knowledge gained in didactic courses with clinical examples. (0-80-2.5)

**OPT 7112—Clinic Conference**

Adjunct to Primary Care Clinic I. Review and discussion of patient data leading to proper clinical diagnosis and patient management. Lectures and small group discussions emphasize integration of knowledge gained in didactic courses with clinical case examples. (10-0-1)

**OPT 7122—Primary Care Clinic II**

Continuation of Primary Care Clinic I. (0-144-2.5)

**OPT 7132—Primary Care Clinic III**

Continuation of Primary Care Clinic II. (0-144-2.5)

**OPT 7146—Primary Care  
Clinical Externship**

Student clinicians provide eye care in multidisciplinary setting under supervision. Emphasizes evaluations, diagnosis, and management of vision diseases and disorders. (0-320-5.5)

**OPT 7151—  
Optical Services Rotation I**

In this introductory rotation in the clinic's optical service, the third-year student begins to apply ophthalmic dispensing procedures learned during the second year Ophthalmic Optics lecture and laboratory to the day-to-day workings of the optical service. The purpose of the student's presence in the optical service is to expand and reinforce his or her knowledge of ophthalmic optics and its application and significance in patient care. (0-36-0.5)

**OPT 7161—  
Optical Services Rotation II**

Continued application of the principles and procedures of ophthalmic dispensing integrated into practice in the optical service. (0-36-0.5)

**OPT 7171—  
Optical Services Rotation III**

Enhancement and expansion of the principles and procedures learned in Rotations I and II. (0-16-0.5)

**OPT 7214—Cornea and  
Contact Lens Externship**

Exposure to various contact lens modalities and associated anterior segment diseases to enhance cognitive and clinical skills. Specialty lens design and therapeutic management of corneal complications. (0-240-4)

**OPT 7224—Pediatric and  
Binocular Vision Externship**

Exposure to various binocular vision disorders and pediatric anomalies.

Students develop treatment plans for functional vision disorders and carry out therapy methodologies to enhance cognitive and clinical skills. (0-240-4)

**OPT 7233—Vision Rehabilitation  
and Geriatrics Externship**

Low vision rehabilitation and geriatric vision care in traditional and elderly care settings. Vision enhancing devices. (0-160-2.5)

**OPT 7308—Medical/Surgical  
Clinical Externship**

Diagnosis, management, and treatment of patients in a medical/surgical setting. Pre- and post-operative care, evaluation and comanagement of patients with systemic health anomalies and medical conditions such as glaucoma. Observation of medical eye care. (0-480-8)

**OPT 7408—  
Clinical Elective Rotation**

An opportunity for the student to gain additional clinic experience from a choice of primary care, secondary care, or tertiary care clinic sites. (0-480-8)

**OPT 7501—Current Topics in  
Practice Management**

Explore current practice options in optometry including: starting from scratch, purchasing a practice, or joining a practice. Learn the proper techniques for successful coding and billing in today's managed care economy. Understand the importance of patient communication, networking, community involvement, and third party participation. Analyze today's market and the student's personal financial goals to develop a plan for successful practice. (18-0-1)





**College of Allied Health  
and Nursing**



# College of Allied Health and Nursing



**Richard E. Davis,**  
PA-C, Ed.D.  
Dean

## Mission Statement

In the spirit of improving and maintaining optimum health conditions in the community, the College of Allied Health and Nursing prepares professionals with essential skills. These skills are necessary for the diagnosis, treatment, and prevention of diseases; for the support of the populace in maintaining proper health and safety; for the management of rehabilitative processes; and for the education of the community. The College of Allied Health and Nursing endeavors to train both graduate and undergraduate professionals in the arts of improving the quality of life in the community.

## Administration

**Richard E. Davis,** PA-C, Ed.D.  
Dean

**Guy M. Nehrenz,** Ed.D., RRT  
Executive Associate Dean,

**William H. Marquardt,** M.A., PA-C  
Associate Dean, Physician Assistant  
Education

**Diane Whitehead,** R.N., M.S.N., Ed.D.  
Associate Dean, Nursing Programs  
Chair, Nursing Department

**Stanley Wilson,** PT, Ed.D., CEAS  
Associate Dean, Academic Affairs

**Jodie Berman,** M.S.  
Assistant Dean, Student Affairs

**Beth Harman,** M.B.A., M.S.  
Director of Administrative Services

**Glenn E. Bigsby III,** D.O., FACOFP  
Chair, Physician Assistant  
Department—Orlando

**Melissa J. Coffman,** M.P.A., PA-C  
Chair, Physician Assistant Department—  
Fort Lauderdale

**Rachelle Dorne,** Ed.D., OTR  
Director, Master's in Occupational  
Therapy Program

**Sandee Dunbar,** D.P.A., OTR/L, FAOTA  
Chair, Occupational Therapy Department

**Erica B. Friedland,** B.A., M.S., Au.D.  
Chair, Audiology Department

**Sandrine Gaillard-Kenney,** M.A., Ed.D.  
Chair, Health Science Department

**Deborah Gerbert,** M.S., PA-C  
Chair, Physician Assistant  
Department—Jacksonville

**Madeleine Hellman,** M.H.M., Ed.D., PT  
Chair, Physical Therapy Department  
Director, Ph.D. Program

**Julie Keena,** B.A., M.M.Sc./PA-C  
Chair, Physician Assistant Department—  
Southwest Florida

**Mary Blackinton,** PT, Ed.D.  
Director, Transition Doctor of Physical  
Therapy Program

**Dawn Brown-Cross**, PT, M.B.A., Ed.D.  
Director, Entry-Level  
Physical Therapy Program

**Patricia Dittman**, M.S.N., Ph.D.  
Director, Nursing Graduate Programs

**Anthony Dyda**, M.P.A.S., PA-C,  
D.H.Sc.  
Director, Master of Health Science  
Program

**Nathalie Garbani**, Ed.D.(c), RVT  
Director, Bachelor/Master of Health  
Science-Vascular Sonography Specialization

**Max Ito**, Ph.D., OTR/L  
Director, Occupational Therapy Doctor  
of Philosophy Program

**Diane John**, R.N., M.S.N.,  
A.R.N.P.-B.C.  
Director, Entry-Level Nursing Program—  
Fort Lauderdale

**Patricia E. Kelly**, PA-C, Ed.D.  
Director, Doctor of Health Science  
Program

**Brianna Black Kent**, R.N.,  
M.Ed., Ph.D.  
Director, Ph.D. in Health  
Science Program

**Christopher Mitchell**, B.A., M.S.  
Director, Bachelor of Health  
Science Program

**Terry Ogilby**, R.N., M.S.N.,  
M.P.H., Ph.D.  
Director, Entry-Level Nursing  
Program—Fort Myers

**William Orr**, M.M.Sc., AA-C  
Director, Master of Health Science—  
Anesthesiologist Assistant Specialization,  
Tampa

**Judith A. Parker**, O.T.D., Ed.S.,  
OTR/L, FAOTA  
Director, Occupational Therapy  
Dr.OT Program

**Marcella Rutherford**, M.B.A., M.S.N.,  
Ph.D.  
Director, R.N. to B.S.N. Program—  
Fort Lauderdale

**Linda Strommen**, R.N., M.S.N.  
Director, R.N. to B.S.N. Program—Fort  
Myers, Orlando, Online

**Robert S. Wagner**, M.M.Sc., AA-C  
Director, Master of Health Science—  
Anesthesiologist Assistant Specialization,  
Fort Lauderdale

## **College of Allied Health and Nursing**

The College of Allied Health and Nursing is committed to providing the highest quality education to students in a variety of health care disciplines. The College of Allied Health and Nursing offers the following programs and degree options:

### **Audiology**

- Audiology Assistant Program
- Doctor of Audiology

### **Health Science**

- Bachelor of Health Science
- Bachelor of Health Science—  
Vascular Sonography
- Master of Health Science
- Master of Health Science—  
Anesthesiologist Assistant
- Master of Health Science—  
Vascular Sonography
- Accelerated Dual Degree  
M.H.Sc./D.H.Sc.
- Doctor of Health Science
- Doctor of Philosophy in  
Health Science

### **Nursing**

- Entry-level Bachelor  
of Science in Nursing

- Bachelor of Science in Nursing for R.N.s
- Master of Science in Nursing
- Doctor of Philosophy in Nursing

### **Occupational Therapy**

- Master of Occupational Therapy
- Doctor of Occupational Therapy
- Doctor of Philosophy in Occupational Therapy

### **Physician Assistant**

- Master of Medical Science in Physician Assistant

### **Physical Therapy**

- Entry-level Doctor of Physical Therapy
- Transition Doctor of Physical Therapy
- Doctor of Philosophy in Physical Therapy

### **Expenses and Financial Aid**

Students should anticipate spending approximately \$3,000 for books and \$19,000 per academic year for living expenses. The primary financial responsibility for a student's education rests with the student and his or her family, but economic circumstances for some families may make it necessary for the student to obtain assistance from other sources. The purpose of the Student Financial Assistance Program at Nova Southeastern University is to help as many qualified students as possible to complete their health professions education. Various loans, scholarships, and grants are available to qualified students to help ease the high cost of a health professions education. These assistance programs are described in a separate university publication: *A Guide to Student Financial Assistance*.

The demands of these programs limit the number of hours a student can work at an outside job. During the months of clinical rotations, it is difficult or impossible for the students to work.

### **Transfer Credits**

Any students wishing to transfer from another university into a College of Allied Health and Nursing program must provide the following:

- official transcripts from all colleges or universities previously attended, sent directly to Nova Southeastern University College of Allied Health and Nursing Office of Admissions
- a letter of recommendation to the department chair or program director of the program in which the applicant is currently enrolled

Transfer credits, if awarded, will be given pending transcript evaluation and for courses that are directly applicable to courses outlined in the curriculum of the allied health department or program in which the student is applying. All transfer credit decisions will be made at the discretion of the department chair or program director.

### **Promotion, Suspension, Dismissal, and Readmission**

The policies for promotion, suspension, dismissal, and readmission are outlined in the *College of Allied Health and Nursing Student Handbook*, which is revised, updated, and distributed annually to all students.



## Audiology Department

### Program Overview

The Audiology Department offers a Doctor of Audiology (Au.D.) Degree Program. The postbachelor's, on-campus Au.D. degree program is a 119-credit, rigorous academic curriculum, which combines basic science and professional coursework with applied clinical training. Students acquire their clinical competencies from experiences in diverse practice settings. Faculty members and clinical preceptors mentor students and model professional excellence. After receiving a doctoral degree in audiology, graduates are prepared for all aspects of clinical practice as well as for positions of professional leadership.

The Doctor of Audiology (Au.D.) degree establishes audiologists in a clearly defined and prominent role within the hearing health care delivery system and strengthens their position as autonomous practitioners. The degree provides the academic foundation and diverse clinical experiences necessary to enter professional practice today and in the future. Audiologists specialize in the evaluation, diagnosis, management, and treatment of children and adults of all ages with auditory and vestibular disorders. At Nova Southeastern University, the Audiology Department benefits from the integrated multidisciplinary health care programs of the university's Health Professions Division. Doctor of Audiology students experience a clinically focused professional doctoral program where students complete a rigorous academic curriculum coupled with extensive clinical experiences.

### Accreditation

The Audiology Department is accredited by the Council on Academic Accreditation (CAA) of the American Speech-Language-Hearing Association (ASHA). Graduates will have completed the academic and clinical requirements necessary to be eligible to apply for a license as an audiologist, pursue board certification in audiology from the American Board of Audiology, and, if they choose to adhere to the clinical supervisory requirements, the Certificate of Clinical Competence from the ASHA.

### Requirements for Admissions

#### Postbaccalaureate Degree

Prospective doctor of audiology students are selected by an admissions committee based on preprofessional academic performance, written application, letters of recommendation, submission of Graduate Record Examination (GRE) scores no older than five years, and a personal interview. Preference will be given to students with a cumulative grade point average (GPA) of 3.2 or higher. The Audiology Department requires that

- prior to matriculation, applicants must have completed a bachelor's degree from a regionally accredited college or university
- applicants are encouraged to complete the following courses prior to enrollment, which are required prerequisites for doctoral courses in audiology:
  - neuroanatomy
  - normal language development
- all applicants must show evidence of computer skills through coursework or self-study prior to the end

of the first term. Students may obtain instruction through the NSU Student Microcomputer Laboratory or other training facilities.

The university reserves the right to modify any requirements on an individual basis as deemed necessary by the dean of the College of Allied Health and Nursing. The college reserves the right, and the student, by his or her act of matriculation, concedes to the college the right to require his or her withdrawal any time the college deems it necessary to safeguard its standards of scholarship, conduct, and compliance with regulations or for such other reasons as are deemed appropriate. The dean and the chair of the Audiology Department reserve the right to require the student's withdrawal at any time for the above-mentioned reasons.

### **United Kingdom Program**

The NSU Audiology Department offers programs in the United Kingdom for audiologists with master's or bachelor's degrees in audiology. The Doctor of Audiology (Au.D.) is a clinically focused professional degree. The United Kingdom programs are designed for the working professional. The content is designed to augment and expand the academic and professional experience that the working professional has achieved.

- Applicants for programs in the United Kingdom must have completed a bachelor's or master's degree in audiology from a regionally accredited college or university. Students are selected by a committee on admissions based on previous academic performance, written application,

letters of recommendation, and a personal interview.

- All applicants must show evidence of computer skills through coursework or self-study prior to the end of the first term. Students may obtain instruction through the NSU Student Microcomputer Laboratory or other training facilities.
- Further information on the programs in the United Kingdom is available at [www.nova.edu/aud](http://www.nova.edu/aud).

### **Transfer Students**

Individuals seeking to transfer to the NSU on-campus, entry-level Doctor of Audiology Program must submit an application and follow the application and admissions process. The Department of Audiology will consider the transfer of up to nine graduate credits from another academic institution. Eligibility for course transfer requires a grade of B or better and must be accompanied by an official course description. Credits must be earned within six years prior to program admission.

### **Computer Requirements**

All students are required to have a computer with the following recommended minimum specifications:

- Pentium; 800MHz minimum processor
- 128 MB RAM
- video capable of 1024 x 768 resolution or better
- CD-ROM capability
- full duplex sound card and speakers
- 56.6 baud modem (DSL or cable preferred)

- Internet connection with private Internet service provider (ISP) for access from home to the Internet
- Windows 2000, ME, XP, or NT
- Microsoft Office 2000 with PowerPoint, Word, and Excel minimum
- surge suppressor electrical outlet
- suggested option: zip drive

## Application Procedures

Applicants for admission must submit or be responsible for submission of

1. a completed application form along with a \$50, nonrefundable application fee
2. three letters of recommendation from instructors or supervisors
3. official transcripts sent directly from all previously attended undergraduate, professional, and graduate institutions to the following address in its entirety:
 

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
Audiology Department Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905.
4. Graduate Record Examination (GRE) scores no older than five years
5. copies of all professional certifications, registrations, licenses, or relevant credentialing materials

The audiology committee on admissions will not consider an application until all required fees, credentials, test scores, transcripts and recommendations have been received by the Office of Admissions.

Notice of acceptance or action by the committee on admissions will be on a “rolling” or periodic schedule; therefore early completion of the application is in the best interest of the student.

## Personal Interviews

Completed applications are reviewed by the committee on admissions and invitations are extended for a personal interview to those applicants applying for the on-campus, entry-level Au.D. program who meet the initial admission criteria. Interviews for the on-campus postbachelor’s degree program are held on campus and provide the student an opportunity to meet faculty members and students and visit the campus.

Inquiries should be directed to

Audiology Admissions Counselor  
Nova Southeastern University  
3200 South University Drive  
Fort Lauderdale, Florida  
33328-2018

Phone: (954) 262-1110  
800-356-0026, ext. 21110  
Fax: (954) 262-1181  
[www.nova.edu/aud](http://www.nova.edu/aud)

## Tuition and Fees

Payment of tuition and fees is expected at the time of registration. Students receiving financial aid are responsible for making sure that they have completed all applications for financial aid and that it has been granted.

- The annual tuition for 2010–2011 postbachelor’s on-campus doctor of audiology program is \$18,500 (subject to change by the board of trustees without notice).

Tuition for the United Kingdom Au.D. sprogram is \$500 per credit hour (subject to change by the board of trustees without notice).

- A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.
- Upon acceptance, students planning to enroll are required to complete an “Intent to Enroll” form with a nonrefundable deposit of \$500. This advance payment will be deducted from the tuition payment due at registration.

The financial ability of applicants to complete their training is important because of the limited number of positions available. Applicants should have specific plans for financing four years of professional education. This should include provision for tuition, living expenses, books, and related expenses.

### **Requirements for Graduation**

In order to be eligible for the post-bachelor’s on-campus doctor of audiology degree, each student must

1. satisfactorily complete the 119-credit hour program of study and related clinical placements required for the degree
2. meet all financial and library obligations
3. ensure that all incomplete grades have been removed and passing grades are on file in the registrar’s office
4. attend in person the rehearsal and commencement program at which the degree is conferred

The United Kingdom post-master’s degree program is 34 credit hours. The postbachelor’s program is 43 credit hours. Students must successfully complete these credit hour requirements and meet all financial and library obligations.

### **Course of Study: Postbachelor’s Program**

The Doctor of Audiology degree is awarded after successful completion of four years of professional study. Beginning in the first semester, students are given clinical assignments and experiences. There will be increased clinical involvement throughout the program as students prepare for direct patient care at our clinics and at locations throughout the community.

The fourth year is designed to be a full-time externship work experience that prepares the graduate to enter the profession at graduation. Successful completion of the Doctor of Audiology Program coupled with a passing score on the Praxis Series Examination for Audiology will enable graduates to be licensed and be eligible for professional certification. Additional information can be obtained on our Web site at [www.nova.edu/aud](http://www.nova.edu/aud).

## Curriculum Outline: Postbachelor's Program

### Typical Plan of Study

YEAR 1—Semester 1: Fall		Credit Hours
AUD 5301L	Diagnostics I Lab	1
AUD 5302	Acoustics and Instrumentation	3
AUD 5304	Anatomy and Physiology Audiology of the Auditory and Vestibular Mechanisms	3
AUD 5301	Diagnostics I: Audiological Diagnosis Across the Life Span	3
AUD 5601	Multisite Observation	0

YEAR 1—Semester 2: Winter		Credit Hours
AUD 6402	Diagnostics II: Site of Lesion	3
AUD 5405	Overview of Amplification I	3
AUD 5070	Research Methods I: Introduction	3
AUD 5405L	Amplification I Lab	1
AUD 5602	Intensive Clinic Lab	3

YEAR 1—Semester 3: Spring		Credit Hours
AUD 6404	Auditory and Vestibular Pathologies	3
AUD 5403	Introduction to Electrophysiology	4
AUD 5403L	Introduction to Electrophysiology Lab	1
AUD 5303	Psychoacoustics and Speech Perception	3
AUD 5603	Clinic II	3

YEAR 2—Semester 1: Fall		Credit Hours
AUD 6406	Overview of Amplification II	3
AUD 6406L	Amplification II Lab	1
AUD 7130	Pediatric Audiology	3
AUD 6504	Implantable Hearing Technologies	2
AUD 6604	Clinic III	3

YEAR 2—Semester 2: Winter		Credit Hours
AUD 6502	Hearing Conservation	3
AUD 6503	Topics in Audiology	3
AUD 7120	Electrophysiology: Auditory	4
AUD 6605	Clinic IV	3

---

<b>YEAR 2—Semester 3: Spring</b>		Credit Hours
AUD 6606	Clinic V	3
AUD 7075	Counseling in Audiology	3
AUD 7100	Advanced Seminar in Amplification	3
AUD 7160	Electrophysiology: Vestibular	3
AUD 7030	Aging and the Auditory/Vestibular System	2

<b>YEAR 3—Semester 1: Fall</b>		Credit Hours
AUD 7071	Biochemistry and Pharmacology for Audiology	2
AUD 7080	Business Management and Leadership	3
AUD 7180	Diagnostics III: Integration of Audiologic Test Results	3
AUD 7607	Internship I	3

<b>YEAR 3—Semester 2: Winter</b>		Credit Hours
AUD 6310	Auditory Intervention	3
AUD 6310L	Auditory Intervention Lab	1
AUD 7050	Audiologic Research Methods II: Applications	3
AUD 7608	Internship II	3

<b>YEAR 3—Semester 3: Spring</b>		Credit Hours
AUD 7060	Genetics of Hearing Impairment	2
AUD 7609	Case Studies in Audiology	2

<b>YEAR 4—Semester 1: Fall</b>		Credit Hours
AUD 7610	Externship I	6

<b>YEAR 4—Semester 2: Winter</b>		Credit Hours
AUD 7611	Externship II	6

<b>YEAR 4—Semester 3: Spring</b>		Credit Hours
AUD 7612	Externship III	6

**Postbachelor's Program Total Credit Hours: 119**

## Curriculum Outline: UK Program

Typical plan of study for UK degree program

AUD 7050	Research Methods II: Applications
AUD 7070	Pharmacology for Audiologists
AUD 7030	Aging and the Auditory/Vestibular System
AUD 7075	Counseling in Audiology
AUD 7061	Genetics for Audiologists
AUD 7100	Advanced Seminar in Amplification
AUD 7130	Pediatric Audiology
AUD 7120	Electrophysiology: Auditory
AUD 7160	Electrophysiology: Vestibular
AUD 7180	Diagnostics III: Integration of Audiologic Test Results
AUD 7080	Business Management and Leadership
AUD 6504	Implantable Hearing Technologies

## Audiology Course Descriptions

### AUD 5004—Science of Sound

This course is designed to acquaint the student with the acoustic attributes of sound and to be able to relate these attributes to speech production and auditory perception. It is designed to provide information about the acoustic and physiological processes involved in respiration, laryngeal function, and vocal tract resonance and to be able to relate these processes to speech production and auditory perception. The final objective is to promote an understanding of the psychoacoustics of human auditory function and how these concepts relate to the encoding and decoding of acoustic signals. (3 credits)

### AUD 5003— Neuroanatomy for Audiologists

This course provides an introduction to the gross structure of the brain and spinal cord and functional relationships of their parts with emphasis on the auditory and vestibular peripheral and central nervous systems. (3 credits)

### AUD 5070— Research Methods I: Introduction

This course will provide students the opportunity to learn about and discuss the critical importance of outcomes measurement and clinical research in audiology. Students locate information and evaluate the rigor of the source and document and synthesize

the professional literature on a topic of their choosing. (3 credits)

#### **AUD 6504—Implantable Hearing Technologies**

This course is designed to provide students with an understanding of different implantable auditory devices for adults and children. Information covered in class will include, but is not limited to, candidacy for implantation, basic understanding of the surgery and surgical risks of implants, pre- and post-audiometric test measures to determine benefit, programming, and troubleshooting. (2 credits)

#### **AUD 5302—Acoustics and Instrumentation**

Students will study properties of sound and conduct sound analyses. They will also learn about and conduct audiometric calibration procedures. (3 credits)

#### **AUD 5303—Psychoacoustics and Speech Perception**

Students will study normal human auditory sensation and perception. Changes in auditory sensation and perception that occur as a function of sensorineural hearing loss, and their implications for hearing aid processing, audiologic evaluation, and treatment will be discussed. (3 credits)

#### **AUD 5304—Anatomy and Physiology of the Auditory and Vestibular Mechanisms**

This course will provide detailed study of the anatomy and physiology of the outer ear, middle ear, inner ear, and central auditory pathways. The vestibular peripheral system and the vestibular CNS pathways are described. (3 credits)

#### **AUD 6310—Auditory Intervention**

This course focuses on intervention and remediation strategies for people with auditory communication handicaps. (3 credits)

#### **AUD 6310L—Auditory Intervention Lab**

This lab supplements AUD 6310, providing students with practical assignments. (1 credit)

#### **AUD 5301—Diagnostics I: Audiologic Diagnosis Across the Life Span**

Students will study components of the basic audiologic examination, including, but not limited to, case history, otoscopy, pure tone threshold evaluation, speech threshold evaluation, speech recognition evaluation, classical site-of-lesion tests, test result interpretation, and test battery interpretation. Students will demonstrate performance of these procedures. Audiologic screening and procedural modifications for special populations including pediatrics will also be discussed. Hypothetical cases will be presented. (4 credits)

#### **AUD 6402—Diagnostics II: Site of Lesion**

Students will learn to conduct and interpret basic immittance, multifrequency/multicomponent immittance, otoacoustic emissions testing, and behavioral auditory processing measures to determine auditory site of lesion. (3 credits)

#### **AUD 5403—Introduction to Electrophysiology**

Basic procedures for acquiring and interpreting auditory electrophysiologic tests are discussed. The student



will have knowledge of the use of auditory brain stem evoked response testing for threshold and neurootologic diagnosis. Students are familiarized with procedures and interpretation for basic vestibular assessment, including electronystagmography, rotational chair, computerized posturography, and behavioral evaluations. (3 credits)

#### **AUD 5403L—Introduction to Electrophysiology Lab**

This lab supplements AUD 5403, providing students with practical assignments. (1 credit)

#### **AUD 6404—Auditory and Vestibular Pathologies**

Students will study pathologies affecting the conductive, sensory, neural, and balance mechanisms. Methods for their differential diagnosis will be discussed. Case studies will be reviewed. (3 credits)

#### **AUD 5405— Overview of Amplification I**

This course is designed to provide an introduction to amplification. The content of this course includes historical perspectives on amplification; functions and features of amplification systems and their components; and methods of fitting, verification, and analyses of these systems. The course also includes basic concepts in counseling. (3 credits)

#### **AUD 5405L—Amplification I Lab**

This lab supplements AUD 5405, providing students with practical assignments. (1 credit)

#### **AUD 6406— Overview of Amplification II**

In this course, the student begins

to integrate theoretical and practical concepts of fitting and verification. Components and features available on contemporary hearing instruments are presented. (3 credits)

#### **AUD 6406L—Amplification II Lab**

This lab supplements AUD 6406, providing students with practical assignments. (1 credit)

#### **AUD 6502—Hearing Conservation**

Students will study the impact of noise from a physiological perspective. Students will study, conduct, and interpret noise surveys. Various service delivery models from industry, schools, military, and other sites will be discussed. The basic elements of an effective hearing conservation program will be discussed. The relevant legislation mandating such programs will be presented. (3 credits)

#### **AUD 6503—Topics in Audiology**

Current topics in assessment, management, and treatment of hearing and balance are examined. (3 credits)

#### **AUD 5601—Multisite Observation**

This course is designed to provide an introduction to clinical practice. Students observe patient evaluation, management, and treatment. (1 credit)

#### **AUD 5602—Intensive Clinical Labs**

Participation in supervised, basic audiological evaluations of patients and other clinical activities as assigned. Weekly meetings with supervisors and/or report writing required. (3 credits)

#### **AUD 5603—Clinic II**

Participation in supervised auditory and vestibular evaluation, management, and treatment. Weekly meetings with supervisors and/or report writing required. (3 credits)

**AUD 6604—Clinic III**

Participation in supervised auditory and vestibular evaluation, management, and treatment. Weekly meetings with supervisors and/or report writing required. (3 credits)

**AUD 6605—Clinic IV**

Participation in supervised auditory and vestibular evaluation, management, and treatment. Weekly meetings with supervisors and/or report writing required. (3 credits)

**AUD 6606—Clinic V**

Participation in supervised auditory and vestibular evaluation, management, and treatment. Weekly meetings with supervisors and/or report writing required. (3 credits)

**AUD 7607—Internship I**

Off-campus placement in hospital, agency, or private practice setting(s). Students must meet the schedule required by the facility to which they are assigned. Supervisory meetings are scheduled periodically. (3 credits)

**AUD 7608—Internship II**

Off-campus placement in hospital, agency, or private practice setting(s). Students must meet the schedule required by the facility to which they are assigned. Supervisory meetings are scheduled periodically. (3 credits)

**AUD 7609—Case Studies in Audiology**

Students critically analyze and present cases that require integration of information from throughout the curriculum. (3 credits)

**AUD 7610—Externship I**

Full-time placement in an audiology externship position. (6 credits)

**AUD 7611—Externship II**

Full-time placement in an audiology externship position. (6 credits)

**AUD 7612—Externship III**

Full-time placement in an audiology externship position. (6 credits)

**AUD 7030—Aging and the Auditory/Vestibular System**

Students will be provided with an overview of gerontology with emphasis given to differentiation between the normal aging process and pathological changes related to auditory and vestibular disorders. (2 credits)

**AUD 7050—****Research Methods II: Applications**

Students will study research design, data collection, analysis, and evaluation. The ability to comprehend, analyze, and critically evaluate professional literature will be emphasized. Students will design clinically based research to test a clinical hypothesis or document treatment effectiveness. (3 credits)

**AUD 7060—Genetics of Hearing Impairment**

The purpose of this course is to review the present knowledge of genetics of hearing impairment and to discuss the potential for gene-based approaches to treatment. (2 credits)

**AUD 7071—Biochemistry and Pharmacology for Audiology**

Many drugs are taken by individuals under the care of audiologists, and many of these drugs interact with auditory and vestibular systems. The biochemistry of the ear will be described, and with that as a foundation, the mechanisms, side effects,

drug interactions, and toxicity of these drugs will be examined. (2 credits)

#### **AUD 7075—**

##### **Counseling in Audiology**

This course is designed to explore theories of counseling related to the management of people with auditory and vestibular disorders. Different approaches for interacting with patients and their families, individually and in groups, will be addressed. (3 credits)

#### **AUD 7080—Business**

##### **Management and Leadership**

In this course, students examine basic principles involved in the development and management of audiology practice within the framework of different models of health care delivery. (3 credits)

#### **AUD 7100—Advanced**

##### **Seminar in Amplification**

This course is designed to provide advanced information on the theoretical and practical concepts of fitting, verification, and analyses of amplification systems. Counseling techniques are discussed. (3 credits)

#### **AUD 7120—**

##### **Electrophysiology: Auditory**

Students will study cochlear physiologic and auditory neurophysiologic evaluation procedures, including evoked responses for all latencies and otoacoustic emissions. Interpretation of test results will be discussed in relation to underlying anatomy and physiology. (4 credits)

#### **AUD 7130—Pediatric Audiology**

This course is designed to provide a review of normal and abnormal auditory development in children. Audiologic assessment, management, and treatment of neonates, infants, and young children will be discussed. Evaluation procedures for the difficult-to-test patient will be explored. (3 credits)

#### **AUD 7160—**

##### **Electrophysiology: Vestibular**

Students will study the anatomy and physiology of the peripheral and central vestibular mechanisms and the integration of the human equilibrium system. Disorders of vestibular function will be studied. Vestibular evaluation procedures will be presented. Vestibular rehabilitation and balance therapy programming and therapy techniques will be discussed and evaluated. (3 credits)

#### **AUD 7180—Diagnostics III:**

##### **Integration of Audiologic**

##### **Test Results**

Students will study advanced auditory evaluation with an emphasis on integration of audiologic test results leading to management and treatment strategies. (3 credits)

## Occupational Therapy Department

Occupational therapists provide services to enhance participation and function in daily occupations, including self care, work, and leisure. Occupational therapists frequently work with individuals when performance has been interrupted or jeopardized by disease, injury, disability, life stress, or other factors. Therapy consists of clients' planned involvement in occupation—purposeful and meaningful activities—that positively influences their life adaptation. This involvement in occupation may be facilitated by supportive training, specialized equipment, environmental modification and/or problem solving to accomplish life tasks. The therapeutic process is founded upon the belief that individuals are the principal agents of their own adaptation, and through active involvement in occupation, can have a significant impact on their health status, recovery from illness, and adjustment to disability.

The occupational therapist must be an expert in the knowledge of occupation, its role in health and adaptation, and its use in therapy. Occupational therapy practice requires the therapist to exercise increasingly complex, autonomous decision-making and problem-solving skills in multifactorial situations. The therapist must, therefore, be a critical thinker, capable of evaluating and synthesizing information from a variety of sources about a wide range of phenomena. Finally, the therapist should be a reflective practitioner able to evaluate his or her own clinical reasoning.

The NSU Occupational Therapy Department offers an entry-level Master of Occupational Therapy (M.O.T.) degree and two post-professional degrees: a Doctor of Occupational Therapy (Dr.OT), and a Doctor of Philosophy (Ph.D.). The M.O.T. program is a full-time, campus-based entry-level program. The M.O.T. is designed so that a student may enter after completing an undergraduate or graduate degree or after completing 90 credits of undergraduate work from a regionally accredited college or university (with a minimum of 30 credits of upper division.) The Dr.OT and Ph.D. are postprofessional OT degrees offered through distance education.

### Accreditation

The entry-level Master of Occupational Therapy is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, Maryland 20824-1220. ACOTE's telephone number, care of AOTA, is (301) 652-AOTA. Graduates of the program will be eligible to sit for the national certification examination for the occupational therapist administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR). In addition, most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT certification examination. Note that a

felony conviction may affect a graduate's ability to sit for the NBCOT certification examination or attain state licensure.

### **Master of Occupational Therapy Admissions Requirements**

The Master of Occupational Therapy Program selects students based on grade point average (GPA), Graduate Record Examination (GRE) scores, a written essay, letters of evaluation, and an interview. Strong candidates will also demonstrate concern for people of diverse backgrounds, as well as the ability to use judgment, insight, and reasoning.

All applicants, with the exception of Certified Occupational Therapy Assistant (COTA) applicants as described below, must

- complete a minimum of 40 volunteer hours in at least two different OT environments
- complete an undergraduate degree or 90 credits of undergraduate work, including 30 semester hours at a junior and/or senior level (Applicants who have not received associate's or bachelor's degrees will be required to submit official high school transcripts certifying their graduation.)
- have a GPA of 2.75 or better on a 4.0 scale for each of the last two years of undergraduate study
- have a social science GPA of 2.75 or better
- have a humanities GPA of 2.75 or better

Preference will be given to applicants with a natural science GPA of 2.75 or better.

All COTA applicants must

- complete an undergraduate degree or 90 credits of undergraduate work with a minimum of 30 semester hours at a junior and/or senior level
- have an average GPA of 2.75 or better in the upper-division coursework

COTA applicants are encouraged to contact the Occupational Therapy Admissions Office at (954) 262-1110 or 800-356-0026, ext. 21110, for a transcript review with respect to prerequisite courses.

COTA applicants completing a minimum of 30 upper-division credits in the NSU online Bachelor of Health Science program must

- earn an average of 2.75 or better in the Bachelor of Health Science upper-division courses

All applicants, including COTA applicants, must

- have a grade of 2.0 or better in all prerequisite courses
- submit GRE scores that are less than five years old for all three areas of the general test (quantitative, verbal, and analytic writing)

Preference will be given to applicants who have a combined verbal and quantitative score of at least 900 and an analytical writing score of at least 3.5.

### **Prerequisite Courses**

<b>course title</b>	<b>credit hours</b>
---------------------	---------------------

#### **Natural Sciences**

Biology with lab (introduction, general, or principles of) .....	3-4
--	-----

Anatomy (human) and physiology (including lab).....	4
OR Anatomy (human) with lab.....	4
and Physiology with lab.....	3–4
Physics with lab (general, college)....	3–4
OR Kinesiology.....	3–4

**Social Sciences**

Psychology.....	6
Human growth and development or developmental psychology (must cover infancy through aging).....	3
Other social sciences (e.g. ethnic studies, anthropology, sociology, or ethics).....	3

**Humanities**

English composition .....	6
Other humanities (e.g., art, communications, literature, foreign language, history, philosophy, logic, or humanities).....	9

**Math**

Statistics.....	3
-----------------	---

**Other**

Medical terminology (college).....	1
	(minimum)

Applicants must demonstrate computer and wordprocessing competency.

NOTE: None of the science courses can be applied science courses.

**Recommended Courses**

The following additional courses will also help in the occupational therapy curriculum.

course title	credit hours
Ethics .....	3
Public speaking.....	3

Theories of personality .....	3
Logic/philosophy.....	3

**Master of Occupational Therapy Application Procedures**

The entry-level Master of Occupational Therapy (M.O.T.) program begins annually in June.

Candidates for admission to the M.O.T. program are responsible for the submission of an application via the Occupational Therapy Centralized Application Service (OTCAS). The OTCAS application deadline is March 15, 2011. Applications are processed on a rolling or periodic basis. It is in the best interest of prospective students to complete their applications early because of the limited number of positions in the class. Applications received after the deadline date will be considered subject to space availability in the entering class.

Details and fees associated with OTCAS are available on the OTCAS website at [www.otcas.org](http://www.otcas.org). After the Office of Admissions has been notified of completed application processing by OTCAS, students will be asked to submit a required, separate supplemental NSU M.O.T. application form for further consideration along with a \$50, nonrefundable application fee by May 1.

Official Graduate Record Examination (GRE) scores are required from within the last five years in all three areas of the general test: verbal, quantitative, and analytical writing.

The NSU institution code is 5522 and the department code is 0618.

GRE scores should be sent directly to the Office of Admissions.

Three letters of reference on NSU Master of Occupational Therapy forms from individuals such as academic instructors and professors, health professionals, volunteer or work supervisors are required. One reference must be from an occupational therapist. Evaluations should be submitted on forms within the OTCAS system.

All applicants, except Certified Occupational Therapy Assistants, must complete a minimum of 40 volunteer hours in at least two different OT practice settings. Some of these environments include hospitals, clinics, and private practices with a variety of populations. Forms for submission will be available within the OTCAS system.

Upon receipt of all materials from OTCAS, the supplemental application, test scores, and applicable fees, the Committee on Admissions will select those applicants for interview. Those selected will be notified in writing of the time and place of the interview. An invitation to appear for an interview should not be construed by the applicant as evidence of acceptance.

If accepted, it is the responsibility of the applicant to ensure arrangements are made for final official transcripts from all undergraduate (including advanced, placement test scores), professional, and graduate institutions attended—sent directly from the institution. All final transcripts, covering all of the applicants work, must be forwarded to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
Occupational Therapy Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida 33329-9905

## **Undergraduate/Occupational Therapy Department Dual Admission Program**

Nova Southeastern University Health Professions Division has established a dual admission program with the Nova Southeastern University Farquhar College of Arts and Sciences for a select number of highly motivated, qualified students interested in pursuing both undergraduate and professional studies in occupational therapy. This allows candidates to receive their master's degree in occupational therapy in five and a half years.

Candidates must have a cumulative grade point average of 3.0 on a 4.0 scale. Students will spend three years in the undergraduate school and will be awarded a bachelor's degree from the Farquhar College upon completion of the first year of education at Nova Southeastern University's College of Allied Health and Nursing. Students will receive the master of occupational therapy degree after completion of the Master of Occupational Therapy Program.

For information and requirements, contact the Office of Admissions, Farquhar College of Arts and Sciences, Nova Southeastern University, 3301 College Avenue, Fort Lauderdale, Florida 33314-7796.

Certified Occupational Therapy Assistants are eligible to apply to the Master of Occupational Therapy (M.O.T.) program after completing 30 upper-division credits from a regionally accredited college or university or from the online Bachelor of Health Science program at NSU. For more information about the B.H.Sc. online

degree completion program, visit [www.nsu.edu/bhs](http://www.nsu.edu/bhs) or [bhsinfo@nsu.nova.edu](mailto:bhsinfo@nsu.nova.edu).

### Tuition and Fees

Tuition for 2010–2011 (subject to change by the board of trustees without notice) for Florida residents and out-of-state students is \$23,000.

A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 also is required annually.

Eligible applicants must request in-state tuition on their applications. For tuition purposes, a student's Florida residency status (in-state or out-of-state) will be determined at initial matriculation and will remain the same throughout the entire enrollment of the student at NSU. Accordingly, tuition will not be adjusted as a result of any change in residency status after initial enrollment registration.

**Acceptance Fee—\$400.** This fee is required to reserve the accepted applicant's place in the entering first-year class. This advance payment will be deducted from the tuition payment due on registration day, but is not refundable in the event of a withdrawal. It is payable within two weeks of an applicant's acceptance.

**Preregistration Fee—\$600.** This is due eight weeks after acceptance or by April 15, whichever comes first, under the same terms as the Acceptance Fee.

The first semester's tuition and fees, less the \$1,000 previously paid, are due on or before registration day. Tuition for each subsequent semester is due on or before the appropriate registration day. Students will not be admitted until their financial obligations have been met.

The financial ability of applicants to complete their education at NSU is important because of the limited number of positions available in each class. Applicants should have specific plans for financing two-and-a-half years of professional education. This should include tuition, living expenses, books, equipment, and miscellaneous expenses.

It is required that each student carry adequate personal medical and hospital insurance. Students may avail themselves of the hospitalization insurance plan obtainable through the university.

### Computer Requirements

All students are REQUIRED to have a computer with the following recommended minimum specifications:

- 2 GHz minimum processor
- 3 GB RAM
- video and monitor capable of 1024 x 768 resolution or better
- CD-ROM or DVD drive
- full duplex sound card and speakers
- DSL or CABLE modem
- Internet connection with private Internet service provider (ISP) for access from home to the Internet
- Windows XP or above or Macintosh with Virtual Machine and Windows
- Microsoft Office 2007 or newer with PowerPoint, Word, and Excel minimum
- surge suppressor recommended

### Suggested options

- DVD/RW or CD/RW



- laptop computer with wireless Internet capability and wireless router for access to NSU wireless network

### **Master of Occupational Therapy Course of Study**

The academic discipline of occupational therapy draws upon and integrates a wide range of interdisciplinary topics. Theories that illuminate the understanding of occupation in human life, the role of occupation in health and adaptation, and the art and science of using activities as therapeutic agents create the foundation for the discipline.

As part of the regular curriculum, occupational therapy students are placed in fieldwork sites that require all students to be fingerprinted and subjected to a background check in accordance with regulations of the Child Care, Licensing and Enforcement Section, Bureau of Children's Services and Broward County, Florida. Additionally, some placement facilities may require criminal background checks and/or drug testing.

Students may, under supervision, provide occupational therapy services to patients seen in the university clinics as part of the regular course of study.

A felony conviction may affect a graduate's ability to sit for the National Board for Certification in Occupational Therapy, Inc. (NBCOT) certification examination or attain state licensure.

### **Requirements for Graduation**

In order to be eligible for the M.O.T. degree, students shall

- be of good moral character
- have satisfactorily completed the program of study required for the degree (102 credits) with a minimum grade of 75 percent in each OCT course and 70 percent in anatomy and neuroanatomy
- have satisfactorily met all financial and library obligations
- successfully complete Level II fieldwork within 24 months of completion of didactic courses
- attend in person the rehearsal and commencement program in the year that the diploma will be conferred

## Curriculum Outline for Master of Occupational Therapy Program

### FIRST YEAR

#### Summer Semester

	Credits
OCT 5014 Introduction to Occupation	1
ANA 5420 Anatomy	5
<b>Total Credits</b>	<b>6</b>

### FIRST YEAR

#### Fall Semester

	Credits
OCT 5011 Occupational Performance and Participation Throughout the Life Span	2
OCT 5800 Applied Kinesiology for Occupational Therapy	3
OCT 5101 Historical and Theoretical Foundations of Occupational Therapy Practice	3
OCT 5013 Occupational Analysis	3
OCT 5121 Impact of Human Conditions on Occupational Performance I	4
<b>Total Credits</b>	<b>15</b>

### FIRST YEAR

#### Winter Semester

	Credits
ANA 5533 Neuroanatomy	3
OCT 5123 Impact of Human Conditions on Occupational Performance II	4
OCT 5130 Human Interactions	2
OCT 5963 Fieldwork Issues I	1
OCT 5015 Impact of Environment on Occupational Performance	2
OCT 5174 Evidence-Based Practice	3
<b>Total Credits</b>	<b>15</b>

### SECOND YEAR

#### Summer Semester

	Credits
OCT 6106 Occupational Therapy Practice I	6
<b>Total Credits</b>	<b>6</b>

<b>Fall Semester</b>		Credits
OCT 6107	Occupational Therapy Practice II	12
OCT 6175	Research	3
<b>Total Credits</b>		<b>15</b>

## SECOND YEAR

<b>Winter Semester</b>		Credits
OCT 6108	Occupational Therapy Practice III	12
OCT 6176	Research Practicum	2
OCT 6150	Professionalism and Management	3
OCT 6980	Fieldwork Issues II	1
<b>Total Credits</b>		<b>18</b>

## SECOND YEAR

<b>Spring Semester</b>		Credits
OCT 6350	Professionalism and Leadership	3
<b>Total Credits</b>		<b>3</b>

## THIRD YEAR

<b>Summer/Fall Semester</b>		Credits
OCT 6981	Fieldwork Experience II (40 hours/week for 12 weeks)	12
OCT 6982	Fieldwork Experience II (40 hours/week for 12 weeks)	12
<b>Total Credits</b>		<b>24</b>

**Total Hours** **102**

## Doctoral Programs in Occupational Therapy

The Occupational Therapy Department at NSU offers two post-professional doctoral degrees: the postprofessional clinical doctorate—the Doctor of Occupational Therapy (Dr.OT), and the research doctorate—the Doctor of Philosophy (Ph.D.). Both of these doctoral programs are taught primarily by distance education with some on-campus time requirements. Applicants with a bachelor's or master's degree are eligible for admission to the Dr.OT program. A master's degree is required for the Ph.D. program. All applicants must have completed an occupational therapy entry-level program and be eligible for an occupational therapy practice license in the state of Florida. Graduates of Nova Southeastern University's M.O.T. Program with a GPA above 90 percent are assured of consideration for admission to the Dr.OT program.

### Doctor of Occupational Therapy (Dr.OT)

The postprofessional Doctor of Occupational Therapy (Dr.OT) degree prepares occupational therapists to become leaders in the advanced practices of occupational therapy, health policy, and program development. Graduates incorporate evidence-based practice, client-centered approaches, occupation-based practice, and best practice to meet societal needs.

Students admitted with a master's degree are required to complete 39 credits of coursework.

Students with graduate credit, but without a master's degree, may have

up to 30 credits accepted, based on courses with the following criteria:

- be at a graduate level from an accredited university
- have a graduate OT course equivalent
- have a grade of B or better

Students with no graduate credit may consider first obtaining a College of Allied Health and Nursing Master of Health Science degree before applying to the Dr.OT program. Other options can be discussed with the program director.

### Admission Requirements

1. Applicants must have either a bachelor's or a master's degree in occupational therapy from a regionally accredited university or college and be eligible for a Florida occupational therapy license. Applicants with a bachelor's degree must have a minimum of 30 graduate credits.

Foreign applicants must present the equivalent of a bachelor's degree and evidence of successful completion of an OT educational program approved by WFOT. All foreign coursework must be evaluated by World Education Services, Inc. ([www.wes.org](http://www.wes.org)), Josef Silny & Associates ([www.jsilny.com](http://www.jsilny.com)), or Educational Credential Evaluators ([www.ece.org](http://www.ece.org)).

2. Admission requirements include a GPA of 3.0 on a 4.0 scale, and preference will be given to applicants with combined verbal and quantitative GRE scores of 800 and an analytical writing score of 4.0 or better.

3. Foreign applicants must also take the Test of English as a Foreign Language (TOEFL) and obtain a score of 550 or higher.

The dean is empowered to evaluate the total qualifications of every student and to modify requirements in unusual circumstances.

All applicants must be certified occupational therapists.

The following courses are required to complete the program:

- OCT 7002—Introduction to Research Methods (3 credits)
- OCT 7003—Capstone Residency (2 credits)
- OCT 7005—Evidence-Based Practice and Critical Thinking in OT (3 credits)
- OCT 7006—Process of Discovery (1 credit)
- OCT 7007—Evidence and Outcomes (3 credits)
- OCT 7010—Theory Development for Models of Practice (3 credits)
- OCT 7103—Occupation-Centered Practice (3 credits)
- OCT 7133—Advanced Policy Issues (3 credits)
- OCT 7302—Contextual Aspects of Occupational Performance (3 credits)
- OCT 7860—Creative Leadership (3 credits)
- electives—selected with doctoral program director approval to complement student's practice focus

### **Doctoral Tuition and Fees (Dr.OT)**

1. Tuition for academic year 2010–2011 (subject to change by the board of trustees without notice) is \$550 per credit hour.

2. A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.

3. Acceptance fee is \$100. This fee is required to reserve the accepted applicant's place in the entering class. This advance payment will be deducted from the tuition payment due on registration day, but is not refundable in case of a withdrawal. It is payable within two weeks of an applicant's acceptance.

The first term's tuition and fees are due on or before registration day. Tuition for each subsequent semester is due on or before the appropriate registration day. Students will not be admitted until their financial obligations have been met.

The financial ability of applicants to complete their training at the college is important because of the limited number of positions available in each class. Applicants should have specific plans for financing their professional education. This should include provision for tuition, living expenses, books and equipment, computer, travel, and miscellaneous expenses.

It is required that each student carry adequate personal medical and hospital insurance. Students may avail themselves of the hospitalization insurance plan obtainable through the university.

### **Requirements for Graduation (Dr.OT)**

In order to be eligible for the Dr.OT degree, students shall

- complete 30 graduate-level credit hours or a master's degree prior to or during Dr.OT coursework as applicable

- complete 39 credits of coursework including all program core course requirements within six years
- have satisfactorily completed the program of study with a minimum overall GPA of 80 percent, and a minimum grade of 80 percent in all coursework
- have successfully completed the capstone paper and residency
- have satisfactorily met all financial and library obligations
- a former NSU M.O.T. student who graduated after November 2009 and began the Dr.OT program within two years of graduation is required to complete 33 credits

### **Doctor of Philosophy (Ph.D.)**

The Doctor of Philosophy (Ph.D.) in Occupational Therapy is conferred in recognition of a demonstrated ability to master a specific field of knowledge and to conduct significant independent research. A minimum of 61 credits of graduate work beyond the master's degree level is required, including a research residency and a dissertation. A majority of the coursework can be completed by distance format except for Summer Research Institutes and four-day weekends in most semesters.

Admission requirements include a GPA of 3.5 on a 4.0 scale and a combined verbal and quantitative GRE score of 900, and GRE analytical writing scores of 4.5 or better. All applicants must have taken graduate-level research methods and introductory statistics courses.

### **Course of Study**

The following courses are required:

- HPH 7300—Fundamentals of Biostatistics (3 credits)
- HPH 7310—Principles of Statistical Inference (3 credits)
- HPH 7400—Research Design (3 credits)
- HPH 7410—Qualitative Research
- HPH 7500—Philosophy of Science (3 credits)
- HPH 7600—Grant Writing and Publication
- OCT 7010—Theory Development for Models of Practice (3 credits)
- OCT 7101—The Health Professional as Academic Educator (3 credits)
- OCT 7103—Occupation-Centered Practice
- OCT 7302—Contextual Aspects of Occupational Performance
- OCT 7820—Applying Measurement Theory to Evaluation (3 credits)
- OCT 7860—Creative Leadership (3 credits)
- OCT 8945—Studies for the Qualifying Examination (1 credit)
- OCT 8950—Research Residency (3 credits)
- OCT 8970—Doctoral Dissertation (9 credits)

### **Requirements for Graduation (Ph.D.)**

In order to be eligible for the Ph.D. degree, students shall

- complete a minimum of 61 credits of graduate coursework that meets NSU doctoral program requirements within nine years of beginning the program

- complete the program of study required for the degree with a minimum overall GPA of 80 percent, and a minimum grade of 80 percent in all required coursework
- successfully complete candidacy (or qualifying) examination within one year of completion of academic coursework
- complete dissertation proposal and proposal defense
- obtain IRB approval to conduct dissertation study
- complete research residency
- complete dissertation study
- complete dissertation
- successfully defend the dissertation, in person or by face-to-face technology, within five years of passing the qualifying examination
- submit documented evidence that dissertation research will be, or has been, presented or published in a peer-reviewed venue at the *national* or *international* level
- present dissertation research and findings at pregraduation symposium or professional conference or meeting
- provide four copies of dissertation, bound in accordance with program requirements
- submit dissertation to the University of Michigan's *Dissertation Abstracts International*
- satisfactorily meet all financial and library obligations

### Application Procedure

Candidates for admission must submit or be responsible for submission of

1. a completed application form along with a \$50, nonrefundable application fee

2. three recommendations from those who can evaluate the applicant's capability for doctoral study

3. a letter of application stating goals and reasons for wanting to pursue doctoral work

4. official GRE scores from all three areas less than five years old; international students must also submit TOEFL scores, if appropriate

5. official college transcripts from all undergraduate and graduate institutions attended, sent directly to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
Occupational Therapy Department  
Office of Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905

All foreign coursework must be evaluated by World Education Services, Inc. ([www.wes.org](http://www.wes.org)), Josef Silny & Associates ([www.jsilny.com](http://www.jsilny.com)), or Educational Credential Evaluators ([www.ece.org](http://www.ece.org)).

6. confirmation of initial certification by the National Board for Certification in Occupational Therapy. Foreign students who intend to do their dissertation research abroad may petition to be released from this requirement. Upon receipt of the completed application and required credentials, the committee on admissions will notify, in writing, applicants who are selected for interview. No applicant will be admitted to the Occupational Therapy Department without an interview, but an invitation to appear for an interview should not be construed by the

applicant as evidence of acceptance. Notice of acceptance or other action by the committee on admissions will be on a “rolling” or periodic schedule. Early completion of the application is therefore in the best interest of the student.

### **Doctoral Tuition and Fees (Ph.D.)**

1. Tuition for academic year 2010–2011 (subject to change by the board of trustees without notice) is \$550 per credit hour.

2. A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.

The first term’s tuition and fees are due on or before registration day. Tuition for each subsequent semester is due on or before the appropriate registration day. Students will not be admitted until their financial obligations have been met.

The financial ability of applicants to complete their training at the college is important because of the limited number of positions available in each class. Applicants should have specific plans for financing their professional education. This should include provision for tuition, living expenses, books and equipment, computer, travel, and miscellaneous expenses.

It is required that each student carry adequate personal medical and hospital insurance. Students may avail themselves of the hospitalization insurance plan obtainable through the university.

### **Computer Requirements**

All students are **required** to have a computer with the following recommended minimum specifications:

- Pentium; 2 GHz minimum processor or equivalent Macintosh
- 3 GB RAM
- video capable of 1024 x 768 resolution or better
- CD-ROM capability
- full duplex sound card and speakers
- DSL or cable modem preferred
- Internet connection with private Internet service provider (ISP) for access from home to the Internet
- Windows 2007 ME, XP, NT, or Vista
- Microsoft Office 2007 with PowerPoint, Word, and Excel minimum

### **Nonmatriculating Students**

Nonmatriculating students may take up to two courses (six credits). An application for nonmatriculating students and relevant transcripts are required as well as approval of the director of doctoral programs in occupational therapy.



## Occupational Therapy Course Descriptions

### **ANA 5420—Anatomy**

Details human anatomy. Laboratory activities consist of student teams studying prosected cadavers, sections, bone sets, videotapes, radiographs, and models. (5 credits)

### **ANA 5533—Neuroanatomy**

Anatomy of central and peripheral nervous systems. Laboratory activities consist of student teams studying prosected cadavers, sections, radiographs, and models. (3 credits)

### **OCT 5011—Occupational Performance and Participation Throughout the Life Span**

This course focuses on the spectrum of occupations that influence health and independence of individuals from infancy to end of life through observation, communication, analytical, and reflective skills. It involves exploration of the impact of culture, environment, sex, and age upon human behavior. (2 credits)

### **OCT 5013—Occupational Analysis**

This course focuses on analyzing occupations and occupational performance. Through engagement in selected projects, students learn to analyze occupational demands. The meaning and significance of challenge, success, and competence in occupations are explored. Students learn to structure, adapt, plan, present, and assess occupations for therapeutic use. (3 credits)

### **OCT 5014—Introduction to Occupation**

This course introduces concepts of human occupation and the framework for practice in occupational therapy. (1 credit)

### **OCT 5015—Impact of Environment on Occupational Performance**

This course focuses on the impact of various environments—such as social and economic systems, culture, physical environment, and technology—on occupational performance. (2 credits)

### **OCT 5101—Historical and Theoretical Foundations of Occupational Therapy Practice**

This course is an examination of the history of occupational therapy's evolution as well as its philosophical and theoretical underpinnings. Emphasis is on understanding various theories, models and frames of reference and how social, political, and economic factors continually influence practice and thinking. (3 credits)

### **OCT 5121—Impact of Human Conditions on Occupational Performance I**

This course expands upon, and integrates information from, anatomy, medical terminology, and introduction to occupations. Students learn about intrinsic human factors affected by pathophysiological conditions and begin to make the link between these factors and occupational performance. (4 credits)

### **OCT 5123— Impact of Human Conditions on Occupational Performance II**

This course expands and builds on the understanding of pathophysiological processes and conditions learned in OCT 5121. This course provides opportunity to apply concepts learned in context relative to the lives of individuals who are living with disorders/injuries to the

immune, cardiopulmonary, urinary, gastrointestinal, endocrine, nervous, musculoskeletal, or neurocognitive systems. (4 credits)

#### **OCT 5130—Human Interactions**

This course focuses on development of therapeutic use of self when interacting with individuals, groups, and treatment teams. Through hands on experiences, the student will learn how to design, participate in, and run occupation-based groups, as well as work within a treatment team. (2 credits)

#### **OCT 5174—Evidence-Based Practice**

This is the first course in a three-course series on research. It provides students with fundamental knowledge to become critical consumers of research evidence. This course focuses on topics of relatedness of research and occupational therapy practice, critical appraisal of research evidence, and research critique. It covers both quantitative and qualitative research. (3 credits)

#### **OCT 5800—Applied Kinesiology for Occupational Therapy**

This course focuses on principles of biomechanics, joint kinematics, joint kinetics, and muscle function to enhance understanding of normal human motion. This course provides opportunity to develop skills in analysis and assessment of muscle strength, joint range of motion, and movement in context of occupational performance. (3 credits)

#### **OCT 5963—Fieldwork Issues I**

This course is designed to address fieldwork placement policies, professional behaviors, and relationship to curriculum design. Requirements

to participate in level I and level II fieldwork placements will be covered. (1 credit)

#### **OCT 6106—Occupational Therapy Practice I**

This course introduces the process of evaluation and intervention from a PEOB perspective with an emphasis on wellness, prevention, and community-based occupational therapy practice. (6 credits)

#### **OCT 6107—Occupational Therapy Practice II**

This course will address evaluation and treatment from a PEOB perspective by clustering topics related to children and youth. Barriers and supports for participation in occupations will be addressed for multiple conditions within the context of diverse environments. (12 credits)

#### **OCT 6108—Occupational Therapy Practice III**

This course is the final occupational therapy practice course. It addresses evaluation and intervention of adult and older adult occupational performance in various environments. (12 credits)

#### **OCT 6150—Professionalism and Management**

Students will learn about the changing face of the U.S. health care delivery system and the regulatory and reimbursement mechanisms that affect delivery of OT services throughout the continuum of care. Particular emphasis will be placed on preparing students to assume varied roles within the U.S. health care system including manager/program director, supervisor, and entrepreneur. Students will develop the ability to recognize and

respond to ethical and legal issues related to occupational therapy practice. (3 credits)

#### **OCT 6175—Research**

This course builds on the evidence-based practice course from last semester. You will learn about quantitative and qualitative research designs, methodologies, research processes and products, and apply your knowledge in the development of a research proposal. The course will be taught sequentially with the knowledge and content needed in developing a basic research study, to include data analyses and disseminating research results. (3 credits)

#### **OCT 6176—Research Practicum**

The third and final MOT research course culminates in implementing an approved study or gaining research experiences in faculty research projects or simulated research. The course will include practical experiences in disseminating research information through written research reports and presentation of research information. There is also an option of preparing a manuscript for publication. This course fulfills the requirement for students to implement one or more aspects of research methodology, possibly including designing research instruments, collecting data, and analyzing or synthesizing data. (2 credits)

#### **OCT 6350—Professionalism and Leadership**

This course will expose the student to professional involvement in advocacy, role-emerging and nontraditional practice areas, and other professional arenas. It includes a two-week Level I fieldwork with opportunity for exposure to varied professional roles. (3 credits)

#### **OCT 6980—Fieldwork Issues II**

This second course in the Fieldwork Issues sequence builds on Fieldwork Issues I by continuing to emphasize the development of professionalism for fieldwork and eventual practice. Students reflect on their previous clinical experiences as they prepare for more advanced involvement in sites with adult patients. Mandatory training continues, as well as policy and procedure reinforcement. (1 credit)

#### **OCT 6981— Fieldwork Experience II**

Twelve-week supervised internship in approved practice setting. **Prerequisite:** Completion of M.O.T. formal coursework (12 credits)

#### **OCT 6982— Fieldwork Experience II**

Twelve-week supervised internship in approved practice setting. **Prerequisite:** Completion of M.O.T. coursework (12 credits)

#### **OCT 7002—Introduction to Research Methods**

This course introduces research methods applicable to evidence-based practice. It presents an overview of quantitative and qualitative research methodologies and their application to occupational therapy practice. Philosophical perspectives, designs, data gathering techniques, data storage/retrieval and analysis, ethics, and interpretation and presentation of data are addressed. (3 credits)

#### **OCT 7003—Capstone Residency**

A 90-hour requirement in clinical or community experiences to expose students to advanced practice and/or policy. This residency may include experiences in basic research and/or

program development. This residency is related to the OCT 7007 Evidence and Outcomes course and supports the capstone project. (2 credits)

### **OCT 7005—Evidence-Based Practice and Critical Thinking in OT**

Through reading and assignments requiring use of the computer, students develop skills in critical thinking, analysis and synthesis of literature, doctoral-level writing, and use of the Internet as a learning resource. (3 credits)

### **OCT 7006—Process of Discovery**

This first course taken in the Dr.OT Program focuses on self and professional identity. At the end of the semester, each student will have started a professional eportfolio that includes a Professional Development Plan. (1 credit)

### **OCT 7007— Evidence and Outcomes**

This is a culminating required course for students in the Dr.OT program. Students integrate and apply knowledge in evidence-based practice and outcomes research. A research residency of a minimum of 90 hours is also required as part of the course. **Prerequisite:** OCT 7006 (3 credits)

### **OCT 7010—Theory Development for Models of Practice**

Presents occupational therapy frames of reference, models of practice, their theoretical development, research, and application. Includes study of historical antecedents, sociopolitical context, and key theorists, researchers, and developers. (3 credits)

### **OCT 7101—The Health Professional as Academic Educator**

Examination of the academic role

from the perspectives of the individual, the institution, and professional organizations. (3 credits) Elective

### **OCT 7103— Occupation-Centered Practice**

This course introduces exploration and further development of the student's knowledge and practice with core concepts of meaningful occupations and health and well-being. Students will examine meaningful occupation and health and well-being from historical roots through present day works in occupational therapy and occupational science literature. (3 credits)

### **OCT 7104—Occupational Science**

The course presents an overview of conceptual frameworks, literature, taxonomies, and research strategies of occupational science. Topics will be examined from multidisciplinary perspectives on work, play, leisure, occupation, and contexts for occupation. Students will select an area for in-depth study. (3 credits) Elective

### **OCT 7109—The Health Professional and Cultural Diversity**

Examination of varying cultures and their related health tradition. Practical application of intervention strategies appropriate for members of varying ethnic, cultural groups. Emphasizes African American, Hispanic, Asian traditions. (3 credits) Elective

### **OCT 7110—The Health Professional and Disability Laws**

Analysis of the impact of the Americans with Disabilities, Fair Housing Act and other disability rights legislation on health care in various settings. Students explore new challenges health professionals face as

disability right legislation influences goals and changes roles for health professionals. (3 credits) Elective

### **OCT 7130—Genetics: Issues for Occupational Therapy**

This course will address the principles and practice of genetics. It will then examine the ethical, legal, and social implications of genetics in occupational therapy practice. (3 credits) Elective

### **OCT 7133—Advanced Policy Issues**

In this course students will look at occupational therapists as key players in policy making. Students may be required to participate in a class trip to Washington, D.C., to lobby on Capital Hill and meet with AOTA's Policy and Government Affairs Department. The course focus will be on the theory and hands on practice of policy making and its impact on occupational therapy. (3 credits)

### **OCT 7160—Special Topics in Occupational Therapy**

This seminar for doctoral students only investigates timely topics of critical interest to health care providers. (3 credits) Elective

### **OCT 7170—Research Methods (Qualitative)**

This course presents an overview of qualitative research methodologies and their application to occupational therapy research and practice. Theoretical and philosophical perspectives, data gathering techniques, data storage and retrieval, data analysis, and interpretation and presentation of data are addressed. Students explore proposal development through practice.

Implications for preparation of research proposals for institutional review board and institutional approval are discussed and practiced. (3 credits) Elective

### **OCT 7180—Neurosciences Foundations of Occupational Performance**

Focuses on the link between neuroscience and human occupational behavior. Current neuroscience research and hypotheses are compared and contrasted with current theoretical work in occupational therapy. Presents material from the clinical practice viewpoint so students learn to use the knowledge gained to enhance their clinical reasoning and occupation-centered practice. (3 credits) Elective

### **OCT 7211—Sensory Processing Basis of Occupational Performance**

Examination of the theory and practice of sensory processing in occupational therapy through the original literature, and current information from neuroscience and evidence-based practice found in articles and through interaction with classmates. Students will apply this knowledge to a specific group of individuals or to a curriculum plan. Advanced-level course: It is anticipated that students will have some prior knowledge and experience in this area of practice. (3 credits) Elective

### **OCT 7241—Infant and Child Mental Health**

The course will provide framework for understanding the complex processes involved in mental health for infants and children, and how this relates to occupational performance. Clinical application of theoretical approaches

and contextual influences will be considered for specific diagnostic classifications. (3 credits) Elective

### **OCT 7242—Occupational Therapy Practice with Autistic Spectrum Disorders**

This course focuses on current findings regarding autistic spectrum disorders and how they affect occupational performance. Includes a review of relevant research and readings from multiple related fields. Specific programs for working with children and adolescents with autism will be examined. (3 credits) Elective

### **OCT 7244 —Low Vision Across the Life Span**

The course focuses on vision deficits throughout the life span and their impact on the occupations of individuals and caregivers. Students will review relevant anatomy, neuroanatomy, and various visual disorders. They will then explore and learn about evaluation of vision deficits and treatment implications through current practice and research findings. (3 credits) Elective

### **OCT 7302—Contextual Aspects of Occupational Performance**

This course is a study of contexts as related to occupational performance for advanced practitioners. Concepts and theories related to the use of context as an enabler of participation are explored. Specifically, cultural, personal, temporal, virtual, physical, and social contexts are examined. (3 credits)

### **OCT 7331—Cognition and Occupation**

Course presents a multidimensional

perspective of cognitive rehabilitation necessary to provide effective occupational therapy intervention. Emphasizes enhancing functional capabilities and community adaptation in addition to a more traditional approach that focuses on ameliorating cognitive deficits. Students will analyze different theoretical models for their application to various clinical populations. (3 credits) Elective

### **OCT 7767—Community Program Development**

Evaluation and application of community organization and development theories to create occupational therapy interventions with underserved and/or nontraditional populations. Emphasizes outcome evaluation of both theory and practice. (3 credits) Elective

### **OCT 7789—Small Business Practice for Occupational Therapists**

This course gives students an introduction for developing and operating a business (e.g., private practice). (3 credits) Elective

### **OCT 7791—Grant Practicum**

In this course, students develop skills necessary to develop a grant proposal and acquire funding for new and innovative programs, research, or education/training projects related to occupational therapy. Using a hands-on approach, students learn to locate online, and conventional sources of funding at federal, foundation, and corporate levels in order to produce a finished, usable grant proposal. (3 credits) Elective

### **OCT 7792—Wellness and Health Promotion**

This course examines occupational therapy's role in wellness and health promotion, disability postponement, and prevention in general. Students critically examine various practice models with a view toward developing and refining their own roles in these practice areas. (3 credits) Elective

### **OCT 7820—Applying Measurement Theory to Evaluation**

Provides students with a general background in measurement theory and assists students to actively apply this information to the evaluation process in occupational therapy. The application component of the course addresses evaluation at both the individual and program levels. At the completion of this course, students can critically examine and select the most appropriate evaluation tools for various practice situations using the theory and principles of measurements. (3 credits)

### **OCT 7821—Measurement Theory and Evaluation: Advanced Applications**

Investigates evaluative procedures appropriate for specialized areas of practice, and the development of new evaluative procedures for specific target populations. (3 credits) Elective

### **OCT 7831—The Occupational Therapy Consultant**

Investigates theories, practice, and principles of occupational therapy consultation in various practice areas. Students address system diagnosis, assessment, team building, and decision making. (3 credits) Elective

### **OCT 7860—Creative Leadership**

Course examines leadership as a critical component to one's future as an occupational therapy practitioner in a global, ever-changing environment. Students look at areas of need in the profession as well as leadership opportunities in their own careers. (3 credits)

### **OCT 7890—Independent Study**

Individualized study under the supervision of assigned instructor. Requires permission of graduate coordinator. (1–3 credits) Elective

### **OCT 7911—Chronicity, Occupation, and Health**

Explores the relationships among chronic disease and disability, occupational performance, occupational satisfaction, and personal wellness when living with a disability from the standpoints of the individual and of society. Students examine clinical, ethical and advocate roles in the context of occupational therapy theory and professional practice standards. (3 credits) Elective

### **OCT 8945—Studies for the Qualifying Examination**

For Ph.D. students who are preparing for, and taking, the Ph.D. qualification exam. (1 credit)

### **OCT 8946—Continuing Qualifying**

Students will only enroll in this course following completion of 1 credit of OCT 8945 Studies for the Qualifying Examination, if more time is required to complete all qualifying requirements. (0 credit)

### **OCT 8950—Research Residency**

Supervised research activity in a

setting approved by the student's dissertation committee. **Prerequisite:** admission to candidacy (3 credits)

### **OCT 8951—Continuing Service for Residency**

Students will only enroll in this course following completion of 3 credits of OCT 8950 Residency, if more time is required to complete all residency requirements. (0 credit)

### **OCT 8970—Doctoral Dissertation**

Supervised original study of occupational therapy evaluation and intervention. **Prerequisite:** admission to candidacy (3 credits)

### **OCT 8971—Continuing Dissertation**

Students will only enroll in this course following completion of 9 credits of OCT 8970 Dissertation, if more time is required to complete all dissertation requirements. Students taking this noncredit course will be charged a fee equivalent to 3 credits tuition for each term that the student is enrolled in OCT 8971. This course fulfills the requirement for continuous enrollment while the student is working on the dissertation. (0 credit)

### **HPH 7200—Research Ethics**

Health care professionals are required to act morally and ethically. This course is designed to expand the student's basic understanding of ethics to promote ethical awareness and enable students to derive better health care decisions that reduce risk of potential ethical consequence. By exposing students to bioethics and controversial ethical issues typically encountered in current health care practice, students practice making difficult decisions.

Students will synthesize and implement strategies for applying morals, values, and ethics systematically in the various settings in which health care is delivered. Considering the perspectives of all stakeholders and the role of the health care provider, patient advocate, professional, and consumer of medical care, students will gain workable knowledge of contemporary ethical issues and appreciate that ethics permeate the majority of decisions made in health care. (3 credits)

### **HPH 7300—**

#### **Fundamentals of Biostatistics**

The application of quantitative techniques has expanded rapidly in medical decision making. The emphasis on evidence-based health care means that health care workers must be able to evaluate the results from published health care research studies. This course is the first of two courses designed to provide students with the knowledge of quantitative techniques. The course will cover descriptive statistics, parametric group comparison statistics, and basic nonparametric statistics, as well as provide an introduction to linear modeling. (3 credits)

### **HPH 7310—Principles of Statistical Inference**

The aim of this course is to enable students to appreciate the richness of statistical science and to invite them to the concepts of probabilistic thinking. Statistics is the science of the future. Any technique that they are going to learn will help them to understand the unknown better, and in turn, it will increase their success in other courses and in future professional careers. Principles of statistical inference build upon the Fundamentals of



Biostatistics course. As such, a prerequisite for enrolling in this course is Fundamentals of Biostatistics. The goals of this course are threefold: (1) introduce the basic concepts of probability and methods for calculating the probability of an event, (2) assist students in developing an understanding of probability theory and sampling distributions, and (3) familiarize students about inferences involving one or two populations, ANOVA, regression analysis, and chi-square tests. **(3 credits)**

### **HPH 7400—Research Design**

This course will provide students with a basic understanding of the methods and approaches used in health-related research. A major emphasis of the course will be on the conceptualization and design of research studies. The course will cover ethics, formulation of research questions, study design, reliability, validity, sampling, measurement, and interpretation of research findings. It will prepare students to critically evaluate published literature and to design sound research studies. The course will be both theoretical and applied. Students will be challenged to apply the theoretical concepts presented in the classroom and in the readings to design a study to address a health-related issue of their choice. **(3 credits)**

### **HPH 7500—Philosophy of Science**

Surveys various approaches to scientific thought. Discusses the nature of science; empiricism; epistemology; history; and concepts of scientific thought and method, reasoning, and the application of logic. Examines the concepts of scientific method; scientific laws; causality; and prediction, confirmation, and induction. **(3 credits)**

### **HPH 7600—Grant Writing and Publication**

This course is designed to provide writing experiences which prepare the learner for manuscript and grant proposal submissions. This introductory experience into the grant process from proposal to funding to management will include project management, funding sources, and funding challenges. Other course requirements include a research proposal (manuscript) that is ready for submission for publication and development of a dissertation proposal. **(3 credits)**

## Physical Therapy Department

Physical therapists are health care professionals who diagnose and treat movement dysfunction that results in physical impairment and disability. In addition to providing direct patient care services, physical therapists serve as administrators of physical therapy services, educators, and consultants. They screen people for potential risk for movement dysfunction in order to prevent impairment and disability and engage in critical inquiry to conduct and review research.

Physical therapists work in a range of settings including acute and subacute care hospitals, rehabilitation centers, outpatient clinics, home health, skilled nursing facilities, school systems, and industrial settings. Physical therapists may work as employees of health care systems, may independently contract their services, or own and manage a private practice. In any setting, for every patient, physical therapists perform a history and physical examination; conduct assessments to determine a diagnosis; select, perform, and supervise appropriate physical therapy interventions; and monitor the effectiveness of treatment.

Physical therapists are licensed in all states and may practice without physician referral in most of them. They are integral members of health care teams in a variety of service systems who serve to improve and maintain the quality of life for millions of people. More than 900,000 people a day are helped by physical therapists to restore health, alleviate pain, and prevent the onset of disease.

The mission of the Nova Southeastern University Physical Therapy Department is to prepare and advance physical therapists as primary care providers who stand beside other health care providers, in any setting, in the prevention, diagnosis, and treatment of movement-related dysfunction. In addition, the Physical Therapy Department fosters critical inquiry, research, lifelong learning, and service to the profession and the community.

### Physical Therapy Student Organizations

#### Student Council

The Physical Therapy Student Council is the official voice of all students. The organization is open to all students and welcomes proposals and participation from the entire student body. Its responsibilities include collecting and expressing student opinion, dispensing funds for student activities, acting as liaison for the student body, promoting physical therapy, supporting club and class activities, and working to improve the quality of life for physical therapy students.

#### Other Student Organizations

Many student organizations addressing various professional interests are open for student membership, including:

- American Physical Therapy Association
- The Student Assembly of the American Physical Therapy Association
- The Student Special Interest Group of the Florida Physical Therapy Association
- campus-based student clubs

## **Entry-Level Doctor of Physical Therapy (D.P.T.)**

### **Course of Study**

The entry-level Doctor of Physical Therapy (D.P.T.) Program at Nova Southeastern University is offered as a full-time or part-time program. The full-time program is completed in 36 months. The part-time/hybrid program will be relocated to NSU's Tampa location and it is pending CAPTE approval. Students for the full-time and the part-time programs are admitted in the summer semester. The programs include 40 weeks of full-time clinical practice. While on campus, student learning experiences occur in a combination of traditional instruction, case-based and interactive learning, and clinical lab skills training. Faculty supervised TIER I clinical education training begins in the winter term of year one for full-time students and the winter term of year three for part-time students. Students experience direct patient care in a variety of health care settings and facilities that serve a variety of populations, including the underserved in Broward County. Depending on the term that TIER I training begins, clinical experiences are one full day every other week or daily for four weeks. The programs culminate in 32 weeks of full-time TIER II clinical education.

Students may elect to enter the Doctor of Philosophy in Physical Therapy (Ph.D.) Degree Program in the year following completion of the entry-level D.P.T. program.

### **Accreditation Status**

The entry-level Doctor of Physical Therapy Program was granted its initial full accreditation by the Commission on Accreditation of Physical Therapy

Education (CAPTE), of the American Physical Therapy Association in October 1996. In April 2002, the program received an additional 10-year accreditation.

Nova Southeastern University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097, Telephone number: 404-679-4501) to award associate's, bachelor's, master's, educational specialist, and doctoral degrees.

### **Requirements for Admission**

The entry-level Doctor of Physical Therapy Program selects students based on prior academic performance, education, work experience, references, interview score, written application, and letters of evaluation. Selection is also based on the following factors:

1. A bachelor's degree from a regionally accredited college or university is required.
2. Applicants must achieve a minimum 2.75 cumulative and prerequisite grade point average (GPA) on a 4.0 scale. No grade lower than a C is acceptable.
3. Students must complete all of the following prerequisite courses prior to admission:
  - English composition or writing (one semester)
  - introduction to statistics (one semester)
  - psychology/sociology—two semesters (one general psychology and an additional psychology or sociology)

The following sciences must be taken in their respective departments. No applied or modified science courses will be accepted.

- biology, anatomy, and physiology (three semesters with at least two in anatomy and physiology—may be separate or combined)
  - physics with laboratory (two semesters)
  - chemistry with laboratory (two semesters)
4. All applicants are required to submit official scores from the Graduate Record Exam (GRE). Writing scores must be included. These test scores must be less than five years old.
5. All prerequisite courses must be completed before the first day of classes. No exceptions will be made.

Applicants must demonstrate evidence of computer skills. Upon review of a student's individual record, the committee on admissions may require additional coursework and testing as a condition of acceptance.

The dean is empowered to evaluate the total qualification of every applicant and to modify requirements in unusual circumstances.

### Computer Requirements

All students are **required** to have and provide the department or program office with the address to an active email account.

All students are **required** to have a computer with the following minimum specifications:

- Pentium III
- 800MHz minimum processor
- 512 MB RAM minimum
- video capable of 800 x 600 screen display or better
- DVD and CD-ROM capability
- full duplex sound card and speakers
- 56.6 baud modem
- Internet connection with private Internet service provider (ISP) for access from home to the Internet. (DSL or cable Internet access is recommended.)
- Windows XP or Vista
- Microsoft Office 2003 or newer with PowerPoint, Word, and Excel minimum
- surge suppressor electrical outlet
- suggested option: laptop computer with wireless Internet capability for use on campus

The cost of meeting this requirement shall be borne by the student and may be included in financial aid considerations.

The college advises all students to verify minimum configuration before purchasing any hardware or software.

### Application Procedures

The Entry-Level Doctor of Physical Therapy Program at Nova Southeastern University uses the Physical Therapist Centralized Application Service (PTCAS). The PTCAS may take up to six weeks to verify supporting documents, therefore, early application is highly recommended.

1. Candidates for admission must complete the online PTCAS application between July 15 and January 15. All applicants to the entry-level D.P.T. program should apply online at [www.ptcas.org](http://www.ptcas.org)
2. Send the following supporting documents directly to PTCAS at the address following.

- a. an official transcript from the registrars of all colleges and universities attended, mailed directly to PTCAS by the college or university
- b. three completed evaluations on the required forms from individuals, other than relatives, such as academic instructors and professors, health professionals, work supervisors, or volunteer supervisors, at least one from a physical therapist

PTCAS  
PO Box 9112  
Watertown, MA 02471

Email: [ptcasinfo@ptcas.org](mailto:ptcasinfo@ptcas.org)  
Phone: (617) 612-2040

considered for a possible interview until all of the requirements have been met.

3. Once the PTCAS application has been received by Nova Southeastern University, a supplemental application will be made available online. Please follow the instructions to complete and submit the supplemental application and fee.
4. Official Graduate Record Exam (GRE) scores (less than five years old) must be submitted with the supplemental application. Both should be sent directly to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
Physical Therapy Department  
Admissions  
P.O. Box 299000  
Fort Lauderdale, Florida 33329-9905

The NSU code number is 5522.

5. Once NSU receives the GRE scores, the supplemental application, and the \$50 fee, the applicant's file will be reviewed by the admissions counselor. The applicant will not be

## **Undergraduate/Entry-Level Doctor of Physical Therapy Dual Admission Program**

Nova Southeastern University Health Professions Division has established a dual admission program with Nova Southeastern University's Farquhar College of Arts and Sciences for a select number of highly motivated, qualified students seeking to pursue both an undergraduate degree and professional studies in physical therapy. Candidates must maintain a specified GPA and achieve acceptable scores on the Graduate Record Examination (GRE).

Students will be awarded a bachelor's degree from the College of Arts and Sciences upon completion of degree requirements. Students will receive an entry-level doctor of physical therapy degree upon completion of the three-year D.P.T. curriculum.

For complete information and requirements, contact the Office of Admissions, Farquhar College of Arts and Sciences, Nova Southeastern University, 3301 College Avenue, Fort Lauderdale, Florida 33314-7796.

### **Tuition and Fees**

- For full-time students, tuition for 2010–2011 (subject to change by the board of trustees without notice) is \$24,500.
- For part-time students, tuition for 2010–2011 (subject to change by the board of trustees without notice) is \$13,850 per year (five-year program). Tuition is approximate and subject to change by the board of trustees.
- Acceptance Fee is \$400. This fee is required to reserve the accepted applicant's place in the entering first-year class. This advance payment will be deducted from the tuition payment due on registration day, but is nonrefundable in the event of a withdrawal. It is due by February 15.
- Preregistration fee is \$600. This is due April 15, under the same terms as the acceptance fee.
- A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.

The first semester's tuition and fees, less the \$1,000 previously paid, are due on or before the appropriate registration day. Tuition for each subsequent semester is due on or before the appropriate registration day. Students will not be admitted until their financial obligations have been met.

The financial ability of applicants to complete their training is important because of the limited number of positions available in each class. Applicants should have specific plans for financing three years of professional education. This should include tuition, living expenses, books, equipment, and miscellaneous expenses.

It is required that each student carry adequate personal medical and hospital insurance throughout the program. Students may avail themselves of the hospitalization insurance plan obtainable through the university.

## Requirements for Graduation

In order to be eligible for the D.P.T. degree, students must

- be of good moral character and uphold professional ethics and behavior
- complete all academic requirements, semester hours, and coursework including self assessment
- satisfactorily complete the program of study required, in sequence in prescribed time, with a minimum grade of 75 percent in all courses
- have satisfactorily met all financial and library obligations
- successfully complete the Tier I and Tier II clinical internships
- successfully complete and present the findings of a critical inquiry research project
- successfully pass a comprehensive examination at the end of the didactic component of the program
- fulfill all professional activity requirements including professional association membership
- fulfill all community service requirements
- have satisfactorily complied with all university, Health Professions Division, College of Allied Health and Nursing, and Department of Physical Therapy policies and procedures including dress code and all student handbook policies and procedures
- attend in person the rehearsal and commencement program at which time the degree is conferred
- demonstrate professional behavior and required attendance throughout the program
- compliance with other requirements as advised

## Full-Time Entry-Level Doctor of Physical Therapy Curriculum Outline

FIRST YEAR—Summer Semester		Credits
PHY 5400	Physiology	3
ANA 5420	Anatomy	5
PHT 5611	Introduction to Physical Therapy	3
PHT 5610	Clinical Anatomy for Physical Therapists	1
<b>Total</b>		<b>12</b>

FIRST YEAR—Fall Semester		Credits
PHT 6710	Clinical Skills I	3
PHT 6714	Pharmacology	3
PHT 6715	Essentials of Biomechanics and Kinesiology	3
PHY 6716	Medical Pathology for Physical Therapists	3
PHT 6705	Essentials of Exercise Physiology for Physical Therapists	2
<b>Total</b>		<b>14</b>

FIRST YEAR—Winter Semester		Credits
PHT 6720	Clinical Skills II	3
PHT 6725	Cardiovascular and Pulmonary PT	3
PHT 6722	Integumentary PT	2
PHT 6701	Professional Development: Communication and Cultural Competence	2
ANA 5423	Neuroanatomy	3
PHT 6706	Tier IA Clinical Education	2
PHT 6700	Research: Introduction to Research Methods and Data Analysis	3
<b>Total</b>		<b>18</b>

SECOND YEAR—Summer Semester		Credits
PHT 6810	Musculoskeletal I	2
PHT 6810L	Musculoskeletal I Lab	2
PHT 6815	Physical Agents	3
PHT 6822	Health Promotion, Disease Prevention, and Wellness	2
PHT 6811	Tier IB Clinical Education	2
<b>Total</b>		<b>11</b>

SECOND YEAR—Fall Semester		Credits
PHT 6820	Musculoskeletal II	3
PHT 6820L	Musculoskeletal II Lab	2
PHT 6831	Tier IC Clinical Education	1
PHT 6841	Tier ID Clinical Education	2



PHT 6816	Neuroscience	3
PHT 6817	Pediatrics	3
PHT 6802	Evidence-Based Practice	3
<b>Total</b>		<b>17</b>

<b>SECOND YEAR—Winter Semester</b>		Credits
PHT 6821	Musculoskeletal III	2
PHT 6821L	Musculoskeletal III Lab	2
PHT 6830	Neuromuscular I	3
PHT 6830L	Neuromuscular I Lab	2
PHT 6835	Medical Diagnostics for Physical Therapists	3
PHT 6813	Gender-Specific Issues in PT	2
<b>Total</b>		<b>14</b>

<b>THIRD YEAR—Summer Semester</b>		Credits
PHT 6823	Professional Development: The Business of Physical Therapy	3
PHT 6914	Neuromuscular II	2
PHT 6914L	Neuromuscular II Lab	2
PHT 6915	Prosthetics and Orthotics	3
PHT 6920	Applied Clinical Decision Making	4
PHT 6904	Research Capstone Project	3
<b>Total</b>		<b>17</b>

<b>THIRD YEAR—Fall Semester</b>		Credits
PHT 6911	Tier IIA Clinical Education Internship	4
PHT 6921	Tier IIB Clinical Education Internship	4
<b>Total</b>		<b>8</b>

<b>THIRD YEAR—Winter Semester</b>		Credits
PHT 6931	Tier IIC Clinical Education Internship	4
PHT 6941	Tier IID Clinical Education Internship	4
PHT 6930	Wrap-up	2
<b>Total</b>		<b>10</b>

<b>ELECTIVE</b>		Credits
PHT 6910	Independent Study	1–6
PHT 7410	Orthopedic Manual Therapy	5
PHT 7411	Strength and Conditioning Exam Preparation	2
PHT 7412	NPTE Preparation	2
PHT 7413	Lymphedema Certification	6

## Tampa Hybrid Entry-Level Doctor of Physical Therapy Curriculum Outline

Tampa Distance Hybrid Entry-Level D.P.T. Curriculum (Implementation 5/31/2011—pending CAPTE approval)

### FIRST YEAR—Summer Semester

	Credits
PHY 5400 Physiology	3
ANA 5420 Anatomy	5
PHT 5611 Professional Development: Introduction to Physical Therapy	3
<b>Total</b>	<b>11</b>

### FIRST YEAR—FALL SEMESTER

PHT 6714 Pharmacology	3
PHT 6705 Essentials of Exercise Physiology	2
PHT 6716 Medical Pathology for PTs	3
<b>Total</b>	<b>8</b>

### FIRST YEAR—WINTER SEMESTER

PHT 6701 Professional Development: Communication and Cultural Competence	2
PHT 6700 Introduction to Research Methods and Design	3
ANA 5423 Neuroanatomy	3

### SECOND YEAR—SUMMER SEMESTER

PHT 5610 Clinical Application for Anatomy	1
PHT 6822 Professional Development: Health Promotion, Disease Prevention, and Wellness	2
<b>Total</b>	<b>3</b>

### SECOND YEAR—FALL SEMESTER

PHT 6715 Essentials of Body Mechanics and Kinesiology	3
PHT 6710 Clinical Skills I	3
PHT 6815 Physical Agents	3
<b>Total</b>	<b>9</b>

### SECOND YEAR—WINTER SEMESTER

PHT 6725 Cardiovascular and Pulmonary PT	3
PHT 6720 Clinical Skills II	3
PHT 6706 Tier IA Clinical Education—3 days acute/geriatrics	2
PHT 6722 Integumentary PT	2
PHT 6813 Gender Specific Health Issues	2
<b>Total</b>	<b>12</b>

### THIRD YEAR—SUMMER SEMESTER

---

PHT 6811	Tier IB Clinical Education—4 weeks full-time, geriatrics	2
PHT 6810	Musculoskeletal I	2
PHT 6810L	Musculoskeletal I Lab	2
PHT 6802	Evidence Based Practice	3
<b>Total</b>		<b>9</b>

---

### THIRD YEAR—FALL SEMESTER

---

PHT 6820	Musculoskeletal II	3
PHT 6820L	Musculoskeletal II Lab	2
PHT 6816	Neuroscience	3
PHT 6817	Pediatrics	3
PHT 6841	Tier ID Clinical Education—4 days pediatrics	1
<b>Total</b>		<b>12</b>

---

### THIRD YEAR—WINTER SEMESTER

---

PHT 6821	Musculoskeletal III	2
PHT 6821L	Musculoskeletal III Lab	2
PHT 6830	Neuromuscular I	3
PHT 6830L	Neuromuscular I Lab	2
PHT 6835	Medical Diagnostics for Physical Therapists	3
PHT 6831	Tier IC Clinical Education— 4 weeks full time, Adult Musculoskeletal	2
<b>Total</b>		<b>14</b>

---

### FOURTH YEAR—SUMMER SEMESTER

---

PHT 6823	The Business of Physical Therapy	3
PHT 6914	Neuromuscular II	2
PHT 6914L	Neuromuscular II Lab	2
PHT 6915	Prosthetics and Orthotics	3
PHT 6920	Applied Clinical Decision Making	4
PHT 6904	Research Capstone Project	3
<b>Total</b>		<b>17</b>

---

### FOURTH YEAR—FALL SEMESTER

---

PHT 6911	Tier IIA Clinical Education	4
PHT 6921	Tier IIB Clinical Education	4
<b>Total</b>		<b>8</b>

---

### FOURTH YEAR—WINTER SEMESTER

---

PHT 6931	Tier IIC Clinical Education	4
----------	-----------------------------	---

---

PHT 6941	Tier IID Clinical Education	4
PHT 6930	Wrap-up	2
		<b>Total</b> 10
		<b>Grand Total</b> 121

<b>ELECTIVE</b>		Credits
PHT 6910	Independent Study	1–6

Students will have time allotted for administrative purposes (Bursar, financial aid, etc.) during on-campus time each semester.

**TOTAL CREDIT HOURS TO GRADUATION 121**

**Note:** Course numbers, names, and sequence may vary.

## Entry-Level Doctor of Physical Therapy Course Descriptions

### PHY 5400—Physiology

The course is intended to provide students in the Physical Therapy Program with an understanding of the basic physiochemical concepts and physiological principles underlying the development, maintenance, and propagation of human life. It provides an examination of the physiological processes essential for students in the College of Allied Health and Nursing and reference to clinical applications is made where appropriate. Topics covered include basic examinations of cellular processes, membrane mechanisms, muscle physiology, the cardiovascular system, the nervous system, renal physiology, the respiratory system, endocrinology, reproductive physiology, and gastrointestinal physiology. (3 credits)

### ANA 5420—Anatomy

The study of structural and functional features of the human body addressed in both lecture and cadaver lab format.

The student will have an anatomical basis for understanding and applying information presented in basic science and clinical courses and for understanding clinical problems. (5 credits)

### PHT 5610—Clinical Applications of Anatomy for Physical Therapists

This course addresses anatomical knowledge specific to the practice of physical therapy. It is an in-depth study of joint anatomy including muscular attachments, ligamentous structures, neural innervations, and contribution to movement. Palpation of key bony- and soft-tissue structures will be introduced. **Corequisite:** ANA 5420 (1 credit)

### PHT 5611—Introduction to Physical Therapy

Introduces the new PT student to the program and the PT profession. It addresses the history of physical therapy, the *Guide to Physical Therapist Practice*, and medical terminology. Professional socialization

begins through introduction to ethical and professional standards (including decision making, supervision, and delegation) and state and federal laws governing PT practice (including issues requiring advocacy). Certifications required for clinical practice such as CPR, AIDS, etc. will be acquired. Students are required to join the American Physical Therapy Association. (3 credits)

### **PHT 6705—Essentials of Exercise Physiology**

Describes the response to exercise and training on the cardiac, pulmonary, musculoskeletal, neural, and endocrine systems of the human body. It explains nutritional considerations, as well as enhancing supplements, as they relate to exercise, athletics, and physical therapy. The various methods of training for increased strength, hypertrophy, power, cardiovascular fitness, and endurance, and the effects of physical activities and work-related stress on the human organism will be discussed. Energy liberation, circulation and respiration, physical work capacity, physical training, energy cost of various activities, nutrition and performance, temperature regulation, factors affecting performance and fitness, and the physiology of various sport activities will be covered. Students will gain the knowledge required for designing exercise programs in the general and special populations based on established needs for function and performance. (2 credits)

### **PHT 6710—Clinical Skills I**

Introduces students to basic PT examination and interventions in accordance with the patient management model found in the *Guide to Physical Therapist Practice*. Students will safely interact and communicate with patients including history tak-

ing and producing documentation of patient status. Safe performance of psychomotor skills such as patient postural assessments, positioning and draping, palpation addressing surface anatomy of the head, trunk and extremities, bed mobility, transfers, the use of assistive gait devices, vital signs monitoring, and patient guarding and handling techniques will be emphasized. An overview of the terms related to CPT-coding and reimbursement will be provided. (3 credits)

### **PHT 6714—Pharmacology**

This course is clinically oriented to address the physical therapist's knowledge of clinical pharmacology to the Doctor of Physical Therapy level. Prescription, over-the-counter, and common herbal supplements will be included. Drug classification, pharmacokinetics, pharmacodynamics, mechanism of action, and indications for use will be addressed. Drug action, therapeutic dosage schedules, drug interactions, and common side effects will be brought into the clinical perspective of patient management. Recognition of expected drug effects, side effects, idiosyncratic reactions, and signs of abuse or noncompliance will be explored. Emphasis will be placed on the therapist's incorporation of pharmacotherapeutic knowledge into physical therapy patient-client management. (3 credits)

### **PHT 6715—Essentials of Biomechanics and Kinesiology**

This is a foundational science course to introduce physical therapy students to the study of biomechanics and kinesiology. The students will integrate their anatomy knowledge of muscle and joint structures into the study of joint motion and functional movements. The course introduces the student

to basic principles of biomechanics, which serves as the foundation for understanding kinesiology. The course will be structured by body parts: the upper extremity, the lower extremity, and the spine. Once the regional knowledge of kinesiology is understood, the final outcome of the course will be to learn and comprehend complex kinesiological analysis: gait, posture, and functional movements. (3 credits)

### **PHT 6716—Medical Pathology for Physical Therapists**

This course provides an introductory overview of medical pathology commonly seen by physical therapists across the life span. Students will be introduced to immunity, tissue response to injury, and healing processes. Students will gain knowledge of signs and symptoms, pathogenesis, and differential diagnosis of selected pathological disorders. Medical management of selected disorders will be introduced as well as prognosis associated with each disorder. Application of the Disablement Model will be used to determine the effect of pathological disorders on functional ability. Students will also gain a brief understanding of the role of the physical therapist in prevention and treatment of selected pathological and biopsychosocial disorders. Discussion will take place regarding cultural and other factors affecting diagnosis, treatment, and prevention of pathological disorders and biopsychosocial disorders currently affecting society. (3 credits)

### **ANA 5423—Neuroanatomy**

This course examines the structural, functional, and developmental features of the human nervous system with reference to different disease states. It establishes an anatomical basis for the study and understanding

of the nervous system as presented in the classroom and the lab. Application of these studies will help in the solving of problems encountered in your career as a future health care professional. (3 credits)

### **PHT 6700—Introduction to Research Methods and Data Analysis**

This course allows the learner to gain skill in reviewing research literature. It includes an overview of the principles of measurement, reliability, and validity; an understanding of the four levels of measurement (nominal, ordinal, interval, and ratio); research ethics; and critical literature analysis. Students will learn about the various types of designs; the researcher's role in the process; and the procedures for data collection, data recording, and data analysis in qualitative research. In addition, students will address the verifications steps, learn what triangulation is, and learn what the elements of the qualitative narrative are. It employs a creative, problem-solving experience during which the student will develop a global understanding of the concepts and principles of research and begin to critically analyze health care research literature. The student will also begin to recognize the importance and role of research in clinical practice. In addition, the outline of the capstone project (to be completed by Year 3 Summer Semester) will be introduced. (3 credits)

### **PHT 6701—Communication and Cultural Competence**

In this course, students will explore concepts of cultural competence related to health care and be given an opportunity to actively incorporate principles of cultural competency in real-life situations. Students will also explore the concepts of inter-professional and interpersonal

communication and group processes, needed to function effectively as part of a team in the health care environment. Communication (written, verbal, and nonverbal) methods with the patient/client, their families, and other members of the health care team will be explored and practiced. Discussions will include epidemiology and health care access issues as they relate to cultural barriers. (2 credits)

**PHT 6706—  
Tier IA Clinical Education**

This is a self-contained, collaborative, clinical education model where students are directly supervised in the clinic by academic faculty. Students practice evaluation and treatment skills learned in the curriculum concurrently and cumulatively in a skilled nursing facility and acute care hospital joint replacement unit. Students see patients and clients three full days over the course of the semester to apply learned examination, evaluation, and treatment skills in underserved geriatric populations and other adult populations. Emphasis is on developing skills in professional behavior, clinical safety, communication, therapeutic presence, assessment, examination, screening, basic treatment planning, and performance of basic skill intervention based primarily on Clinical Skills I with introduction of some of the skills in Clinical Skills II. Theories, research, and unique characteristics and behaviors related to aging, geriatric medicine, and physical therapy will be explored in light of current health care trends, clinical practice, and predictions. (2 credits)

**PHT 6720—Clinical Skills II**

This course presents models for clinical decision making including the

patient care management model as presented in the *Guide to Physical Therapist Practice*. Students will learn to safely apply assessment and intervention techniques that address range of motion and strength deficits. Safe performance of psychomotor skills such as goniometric measurements, MMT, therapeutic exercises, PNF, and tilt and standing table and parallel bars will be emphasized. (3 credits)

**PHT 6722—Integumentary PT**

The structure and function of the integument is presented. Skin functions in homeostasis including protection, regulation of body temperature, sensory reception, water balance, synthesis of vitamins and hormones, and absorption of materials. Students will safely perform physical therapy assessment and explore interventions for wounds and edema based on the current literature such as dressings, therapeutic massage, compression, and hydro and electrotherapeutic modalities. Assistive, adaptive supportive devices and equipment to prevent or relieve skin trauma will be addressed.

At the end of this course, the students will be able to evaluate, treat, and document disorders of the skin that are frequently treated by PTs. The students will also be able to determine whether a skin disorder needs referral to another appropriate health care provider. (2 credits)

**PHT 6725—Cardiovascular  
and Pulmonary PT**

This course provides an overview of the related pathologies and diagnostic and medical-surgical procedures of the cardiovascular and pulmonary systems. Physiological principles of exercise will be applied to cardiopulmonary examination and intervention

for given pathologies. Students will demonstrate PT cardiovascular and pulmonary examination, procedures, treatment planning, documentation and outcome measurement across all clinical settings and explore interventions related to exercise, functional activities and airway clearance. The relevance of clinical laboratory values and medical/surgical diagnostics and interventions associated with cardiovascular and pulmonary dysfunctions will also be covered. Case studies are used in conjunction with lecture, and interactive teaching and learning to assist students in integrating didactic knowledge into simulated and real-life scenarios including laboratory skills  
**Prerequisites:** PHT 6705 and PHT 6714 (3 credits)

#### **PHT 6811—**

##### **Tier IB Clinical Education**

In this four-week, community-based clinical education experience, students are directly supervised in the clinic by community-based clinicians in a 1:1 or 2:1 model based on clinic preference. Emphasis is on developing confidence and competency in professional behavior, reimbursement/billing, clinical safety, communication, therapeutic presence, assessment, examination, treatment planning, patient/client education, and performance of basic skill interventions and documentation with patients/clients scheduled on a repetitive basis over the course of several weeks. (3 credits)

#### **PHT 6810—Musculoskeletal I**

This is the first of three courses designed to introduce the entry-level D.P.T. student to the elements of patient/client management in the orthopedic setting. This course emphasizes the musculoskeletal system and follows both the

sequence and nomenclature outlined in the *Guide to Physical Therapist Practice* including examination, evaluation, diagnosis, prognosis, intervention, and outcomes. Specific areas to be covered will include communication and history taking, systems review, symptom physiology, selection and administering tests and measures, principles of manual therapy, soft tissue/myofascial intervention, extremity and spine mobilization (non-thrust), common disorders and injuries, musculoskeletal radiology, and principles of musculoskeletal disorder/injury management. Students will acquire the cognitive, psychomotor, and affective skills necessary to conduct a general musculoskeletal examination and perform interventions relevant to physical therapy practice. At completion of this course, students will have acquired the requisite knowledge to learn advanced diagnoses and interventions covered in PHT 6820, PHT 6820L, PHT 6821, and PHT 6821L. Case studies will be utilized in conjunction with lecture, laboratory skill practice, and interactive teaching and learning methods to integrate didactic knowledge into real-life clinical scenarios. (2 credits)

#### **PHT 6810L—**

##### **Musculoskeletal I Lab**

Laboratory sessions will emphasize the psychomotor and affective skills required to perform the examination and interventions addressed in PHT 6810. **Corequisite:** PHT 6810 (2 credits)

#### **PHT 6815—Physical Agents**

This course will emphasize both cognitive and psychomotor knowledge related to electro- and thermo-modalities. Basic science information related to physiological effects, indications, and contraindications will be discussed.



Lecture, interactive teaching, and lab practice will be used to assist students in integrating the didactic knowledge into simulated and real-life scenarios. (3 credits)

### **PHT 6822—Health Promotion, Disease Prevention, and Wellness**

Teaching is an integral part of physical therapy practice and one of the foundations of a doctoring profession. This course explores both the theoretical basis and the practical techniques related to: patient-related instruction, designing educational programs, evaluating program/teaching effectiveness, facilitating behavior change, creating professional presentations, and engaging in clinical education. Students will explore learning styles and factors that impact learning across the life span. The physical therapist's professional role as an advocate of health, wellness, and prevention will be analyzed. The course will examine the Healthy People 2020 initiative, APTA's Vision 2020, wellness theory/models, dimensions of wellness, holistic versus conventional medicine, outcome measurements of wellness and quality of life, screening for health/fitness/wellness, and wellness considerations for special populations. Students will have the opportunity to design their own wellness program, applying the principles and strategies covered in this course. Learning will occur through reading, research, critical analysis of the literature, class discussion, lecture, collaborative learning, case studies, presentation, peer review, and writing. (2 credits)

### **PHT 6802—Evidence-Based Practice**

In this course, students will be exposed to Sackett's model of evidence-based

medicine in order to lay a foundation for understanding the global concept of evidence-based practice (EBP). Students will learn to use the PICO format to ask clinically relevant questions. Students will learn to locate sources of evidence, evaluate the evidence, and make recommendations based on the evidence. Students will also explore the work of the Philadelphia Panel, the Pedro scale, and Hooked on Evidence as methods for critiquing the literature. Lastly, students will contribute to APTA's Hooked on Evidence database.

This course also exposes the students to the most common statistical tools used in research. Through lectures and assignments, students will learn about sampling and data management, describing and exploring data, inferential statistics and hypothesis testing, correlation and regression, and nonparametric statistics, applying what is learned to critiquing the value of an article. Students will also be exposed to statistical methods on appraisal of the evidence about diagnostic tests, intervention outcomes, and systematic reviews.

In addition, this course explores the incorporation of outcome measurement tools that measure both clinical (impairments, functional limitations, disabilities) and quality of life (social, emotional, and/or vocational areas) outcomes into daily practice. (3 credits)

### **PHT 6816—Neuroscience**

This course provides the foundational knowledge necessary for patient/client management of patients with neuromuscular conditions through two modules: neurophysiology and motor control/motor learning. Students review the structure and function of the nervous system, emphasizing

neurophysiological processes that relate to physical therapy and movement dysfunction. Principles of motor control and motor learning are discussed as they relate to normal human movement and movement dysfunction that results from neurologic disorders. Concepts of neuroplasticity and the recovery of function are also addressed. Classroom activities include case studies, group discussions, literature reviews, simulations, and lectures. **Prerequisite:** ANA 5423 (3 credits)

### **PHT 6817—Pediatrics**

This course focuses on the physical therapy management of the pediatric patient/client and role of family-centered care. Students gain an understanding of typical infant and child development as it relates to movement. Using this foundation, students will analyze movement dysfunction exhibited in high-risk infants and children who have common childhood pathologies. Typical development is presented in the context of applying current motor control theories to predictable developmental sequences, motor progressions, and achievement of motor milestones. Atypical child motor dysfunction related to developmental delays; CNS damage; orthopedic conditions, respiratory conditions; sensory processing dysfunction; multisystem impairments; and congenital, neurological, and neuromuscular disorders content is covered to promote critical thinking and establishment of appropriate physical therapy management. Students become familiarized with commonly used pediatric screens, tests, and measurements. *Guide to Physical Therapist Practice* patterns (examination, evaluation, diagnosis, prognosis, and evidence-based interventions) are applied in context. Management incorporating use/need for assistive

devices, technologies, adapted equipment (i.e., wheelchair prescription and seating), orthotics, and bracing, as well as use of newer interventions for the pediatric patient/client, are presented. Delegation and supervision of support personnel, legal/ethical issues related to delivery of care, documentation, interdisciplinary team management, cultural issues, reimbursement, and patient/family and teacher education are explored. Content is presented through lecture, lab, case studies, large and small group discussion, and community-based activities. (3 credits)

### **PHT 6820—Musculoskeletal II**

Students will acquire the skills needed to manage and prevent disorders of the musculoskeletal system. Students will address relevant practice patterns as they relate to the upper/lower quarter, diagnostic classifications, ICD9 codes, examination, evaluation, diagnosis, prognosis, and interventions. Case studies are utilized in conjunction with lecture to assist students in integrating the didactic knowledge into simulated and real life scenarios. (3 credits)

### **PHT 6820L—Musculoskeletal II Lab**

Emphasizes the psychomotor and affective skills required when providing the musculoskeletal interventions and tests addressed in PHT 6820. Students will acquire the psychomotor skills needed to manage and prevent disorders of the musculoskeletal system by addressing relevant practice patterns as they relate to the upper/lower quarter, ICD-9 codes, examination, evaluation, diagnosis, prognosis, and interventions related to these patterns. **Corequisites:** PHT 6820 (2 credits)

### **PHT 6831—**

#### **Tier IC Clinical Education**

This is a self-contained, collaborative, clinical education model where students are directly supervised in the clinic by academic faculty members. Students practice assessment/examination, evaluation, and interventions learned in Clinical Skills I and II, Musculoskeletal I, Physical Agents, Musculoskeletal II, Pediatrics, Neuroscience, Musculoskeletal III, Neuromuscular Systems I, and other courses throughout the curriculum in a pediatric site. Students will attend the clinical experiences primarily on Mondays for a full day (please refer to schedule for exact days). Students manage patients/students to apply learned skills for underinsured and underserved children of all ages in multiple settings, including the educational environment and skilled nursing facilities. Emphasis is on application of initial examination skills, evaluation, treatment planning and implementation, and documentation, with continuing emphasis on developing confidence and competency in professional behavior, clinical safety, communication, therapeutic presence, patient/client education, and performance of skill interventions. (2 credits)

### **PHT 6841—Tier ID Clinical Education**

At the completion of this course, physical therapy students will be able to demonstrate the clinical knowledge and skill necessary to effectively communicate with clients/patients and others in written and oral formats; the appropriate therapeutic presence during interactions with patients/clients, families, and facility staff members of all ages and differing cultures; the appropriate and safe body mechanics;

the ability to perform client/patient histories and interviews; and the cognitive, affective, and psychomotor clinical skills indicated in the learner objectives of Clinical Skills I and II, Musculoskeletal I, Physical Agents, Musculoskeletal II, Musculoskeletal III, Neuroscience, Neuromuscular Systems I, Pediatrics, and other courses throughout the curriculum in both an outpatient adult setting on the NSU campus and various settings within a pediatric site.

Students will learn to apply applicable reimbursement processes in the outpatient setting. Students will practice critical-thinking skills to facilitate application of knowledge gained in the didactic curriculum to effectively and safely handle patients/clients encountered in Tier ID who have impairments and functional limitations. (1 credit)

### **PHT 6813—Gender-Specific Issues in Physical Therapy**

This course provides a review of diseases unique to the male and female body systems. Students will gain knowledge of gender-specific pathologic processes associated with selected diseases as well as disease-specific signs and symptoms. Common medical diagnostic and treatment approaches of gender-specific conditions are discussed, including both medical management and an introduction to physical therapy intervention. Changes to body systems during normal pregnancy will be discussed in addition to common pregnancy-related musculoskeletal problems. Topics will include male and female incontinence, prostate disease, erectile dysfunction, pregnancy-related movement dysfunction, pelvic floor dysfunction, urinary and fecal incon-

tinence, lymph edema management, premenstrual dysphoric syndrome, female athlete triad, postmenopausal considerations, and osteoporosis. Students will be exposed to entry-level physical therapy examination techniques and interventions used to manage gender-specific diseases, including recognition of key subjective or historical information that may warrant a pelvic floor examination or referral to another professional. Basic examination and intervention techniques will be practiced in a simulated environment. (2 credits)

### **PHT 6821—Musculoskeletal III**

This course is an evidence-based approach to the management of musculoskeletal disorders of the spine. Students will acquire the requisite skills necessary to examine, manage, and prevent musculoskeletal impairments; functional limitations; and disabilities of the spine. The course will address lumbar, thoracic, costal, cervical, sacroiliac, pelvis, temporomandibular, and headache disorders. Students are prepared for entry-level patient/client management including the ability to perform an examination, evaluation, diagnosis, prognosis, and the ability to select optimum interventions. Moreover, students will acquire the knowledge necessary to accurately disseminate information (verbal and written/documented) related to the examination and management of spine disorders to patients and clients and across the broad range of health care disciplines. Case studies are utilized in conjunction with lecture and interactive teaching and learning to assist students in integrating the didactic knowledge into simulated and real life scenarios. (2 credits)

### **PHT 6821L—Musculoskeletal III Lab**

This course will emphasize the psychomotor and affective skills required when providing the associated musculoskeletal examination and interventions addressed in PHT 6821. Students are instructed and mentored in the selection and application of tests, measurements, and physical therapy interventions. Case studies are utilized in conjunction with interactive teaching and learning to assist students in integrating the techniques into simulated and real-life scenarios relevant to the musculoskeletal system. **Corequisite:** PHT 6821 (2 credits)

### **PHT 6830—Neuromuscular Systems I**

Neuromuscular Systems I addresses the examination and treatment of adults with neuromuscular disorders. Students apply knowledge from Neuroanatomy and Neuroscience to the clinical management of patients with neurological conditions. Neuromuscular Systems I provides the foundational concepts and clinical reasoning for choosing tests and measures used during PT examination of the neurological patient, including sensory and motor tests; examination of motor function, motor learning, and coordination; cranial nerves; functional mobility; self-care and activities of daily living; community function; arousal, attention, and cognition; and balance, gait, and disease-specific tests. The foundational concepts for procedural interventions related to neurorehabilitation will be addressed. These include indications, precautions, and contraindications, as well as evidence-based recommendations for therapeutic exercise; balance and

gait retraining; manual techniques and facilitation; electric stimulation; mobility training; upper extremity reach, grasp, and manipulation training; positioning, supportive, and protective devices; wheelchairs; and community re-entry. **Prerequisites:** ANA 5423 and PHT 6816 (3 credits)

### **PHT 6830L—Neuromuscular Systems I Lab**

This course is the laboratory component of Neuromuscular Systems I which addresses the psychomotor skills needed for the examination and treatment of patients with neuromuscular disorders. The students will be exposed to a variety of clinical tests and measures including patient history; sensory testing (superficial, deep, and cortical sensations) by both peripheral nerve distribution and dermatome; myotome and manual muscle testing; motor function and coordination testing; balance, gait, and mobility testing; arousal, attention, and cognitive tests; environmental, home, and work/play barriers; self-care and home management (including ADLs and IADL testing); job/school/play reintegration testing; and assistive/adaptive device testing. Disease-specific tests and measures will also be performed. Psychomotor treatment skills will include balance and gait training, including body weight-supported treadmill training; therapeutic exercise to improve muscle performance, mobility, balance, and coordination for the neurological patient; functional training, self-care and home management in ADLs and IADLs; work/play integration; manual therapy techniques, positioning, and facilitation; and prescription and application of assistive and supportive devices; as well as physical agents and electrotherapeutic modalities. **Prerequisites:** ANA 5423 and PHT 6816 (2 credits)

### **PHT 6835—Medical Diagnostics for Physical Therapists**

This course provides students with the opportunity to develop their skills to identify patients with medical conditions outside the physical therapy practice scope. The focus is differential diagnosis through history and physical exam and not physical therapy intervention. The differential diagnosis is between musculoskeletal conditions and medical/psychological conditions commonly seen in outpatient settings. The course emphasizes conditions that should not be treated by physical therapists or conditions that require physical therapy intervention in direct consultation with other health care professionals (mainly physicians, dentists, and psychotherapists). The course will cover common laboratory tests applied to physical therapy (blood tests, urine analysis, synovial fluid analysis, cerebral spinal fluid). The course will also discuss the findings of imaging tests in diseases affecting the musculoskeletal system. Students are encouraged to apply the information learned in this course in their clinical internships and discuss each topic among themselves and with the instructors. **Prerequisites:** PHT 6810 and PHT 6716 (3 credits)

### **PHT 6823—The Business of Physical Therapy**

This course is devoted to understanding the structure and function of the United States health care delivery system. It explores the regulatory, economic and financial responsibilities of the physical therapy manager in the utilization of human and material resources within a variety of health care environments. Students will develop knowledge and skills to effectively manage in various health care settings. (3 credits)

### **PHT 6904—**

#### **Research Capstone Project**

This course requires students to complete a group research project with two–three other students in the same class. The topic, methodology, and depth of the study will be determined by the supervising faculty member. Though this is a group project, students will receive individual grades for the work they contributed to the project. (3 credits)

### **PHT 6914—Neuromuscular II**

Neuromuscular II integrates concepts from Neuroscience and Neuromuscular Systems I to engage students in the patient/client management of patients with neuromuscular dysfunction. Students are exposed to a variety of case studies, representing all adult neuromuscular practice patterns in the *Guide to Physical Therapist Practice*, to integrate and apply previously learned neuromuscular skills to patient scenarios. Emphasis is placed on clinical reasoning during all steps of patient/client management, the ability to apply evidence in practice, design and execution of patient/client-related instruction, delegation to support personnel, and documentation of all aspects of care. This class also addresses primary, secondary, and tertiary prevention for patients with neuromuscular conditions. (2 credits)

### **PHT 6914L—**

#### **Neuromuscular II Lab**

This course is the laboratory component of Neuromuscular II. In it, students will perform all aspects of patient/client management including examination, evaluation, diagnosis, prognosis, development of a plan of care, procedural interventions, and outcome measurement. Students will apply these techniques to a vari-

ety of case studies, representing the scope of adult practice patterns in the *Guide to Physical Therapist Practice*. Neuromuscular II culminates in an intense, one-week laboratory experience, the Neuro Boot Camp, in which students work with real patients who have complicated neuromuscular disorders in a faculty-supervised setting. Students are responsible for performing a thorough examination, writing a comprehensive plan of care, performing procedural interventions, providing patient instruction, and communicating with caregivers. (2 credits)

### **PHT 6915—**

#### **Prosthetics and Orthotics**

Students will acquire the skills needed to manage movement-related problems in patients with amputations because of diabetes, burns, trauma, oncological problems, and genetic conditions. They will study upper and lower extremity prosthetics and orthotics and spinal orthotics. Orthotic needs associated with obesity, arthritis, pain, etc., will be addressed, as well. (3 credits)

### **PHT 6920—**

#### **Applied Clinical Decision Making**

Students apply problem solving heuristics, analyze case presentations of multifactor movement dysfunction, synthesize patient problem lists from collected data, develop intervention strategies, and evaluate the outcome of assessment and intervention decisions. The course integrates material from the foundational medical and clinical sciences and student clinical experiences. Accordingly, students demonstrate differential diagnosis and treatment planning across the life span as well as select and justify interventions, recommend referrals, and establish discharge dispositions.

Student learning and course participation is driven by mock and real clinical cases and clinical experiences. Content experts guide cognitive domain discussion and the decision-making process, assess the affective domain and compliance with professional ethical standards, and evaluate complex overt performance of psychomotor tasks. Students will develop initial plans for examination and assessment, perform assessments, analyze and interpret test results, prepare written intervention plans, perform interventions, and suggest potential outcome assessments. Students will justify and modify treatment plans to account for changes in the patients' status. In addition, students will prepare and present a clinical case report to the assembled class at the conclusion of the term. Topics for the clinical cases and clinical experiences will cover a broad spectrum of conditions seen by physical therapists in the clinical setting. (4 credits)

### **PHT 6911—Tier IIA Clinical Education Internship**

This is the first of four senior, full-time, clinical affiliation courses. This course will provide senior physical therapy students with the opportunities to practice clinical decision making based on evidence and develop entry-level physical therapy skills for patient/client management in a variety of clinical settings on a full-time basis. Students will apply their knowledge, skills, attitudes, and behaviors in community-based physical therapy settings. Tier II clinical education encompasses on-campus orientation and 32 weeks of full-time, senior-level clinical internships during fall and winter semesters. Students will typically rotate through four, eight-week clinical placements in a variety of health care

organizations; schedule modifications may be made to accommodate facility requirements or other needs. The goal of all placements is for student achievement of entry-level competency and professional behaviors in all settings. Students must complete at least one internship in an acute care/inpatient or subacute setting, a neurorehabilitation setting, and an outpatient setting. The remaining internship may be completed in the venue or setting of the student's choice, including outpatient clinics; rehabilitation hospitals or units; specialty practices including pediatrics, sports, workers' compensation/ergonomics; or women's and men's health, as available. During the full-time internship, students will focus on patient/client management models by performing patient examinations, evaluations, determining diagnoses, prognoses, and interventions (POC) within the context of the clinical setting utilizing the *Guide to Physical Therapist Practice*. It is expected that through the Tier II clinical education experiences, students will demonstrate appropriate management skills of patients/clients across the adult life span or across the continuum of care commonly seen in physical therapy practice. Students are expected to demonstrate effective communication and documentation skills and to develop their professionalism consistent with the APTA core values, cultural competence, and ethical and legal practice. (4 credits)

### **PHT 6921—Tier IIB Clinical Education Internship**

This is the second of four senior, full-time, clinical affiliation courses. Students will complete an extended internship in multifaceted health care organizations with the goal of bringing

their skills to entry level for both inpatient and outpatient care. Students will also have the opportunity to choose a specialty area in physical therapy practice and complete a portion of the internship in that specialty area. See PHT 6911. (4 credits)

#### **PHT 6930—Wrap-up**

The course provides a conclusion to TIER II as well as the didactic portion of the curriculum. A comprehensive examination covering all topics addressed in the curriculum will be administered. Additionally, the management of the graduation process and commencement exercises will occur. (2 credits)

#### **PHT 6931—Tier IIC Clinical Education Internship**

This is the third of four senior, full-time, clinical affiliation courses. Students will complete an extended internship in multifaceted health care organizations with the goal of bringing their skills to entry level for both inpatient and outpatient care. Students will also have the opportunity to choose a specialty area in physical therapy practice and complete a portion of the internship in that specialty area. See PHT 6911. (4 credits)

#### **PHT 6941—Tier IID Clinical Education Internship**

This is the fourth of four senior, full-time, clinical affiliation courses. Students will complete an extended internship in multifaceted health care organizations with the goal of bringing their skills to entry level for both inpatient and outpatient care. Students will also have the opportunity to choose a specialty area in physical therapy practice and complete a portion of the internship in that specialty area. See PHT 6911. (4 credits)

#### **PHT 6910—Independent Study**

Individualized study completed under the supervision of an instructor. Requires permission of the program director (1–6 credits)



## Postprofessional Doctoral Programs in Physical Therapy

The Physical Therapy Department at Nova Southeastern University offers two postgraduate programs for practicing physical therapists: the clinical doctorate—or transition Doctor of Physical Therapy (T-D.P.T.), and the research doctorate—the Doctor of Philosophy in Physical Therapy (Ph.D., P.T.). These two distinct programs are designed to meet the diverse needs of physical therapists who are seeking to advance their education and skills from an accredited institution. Applicants with a baccalaureate or master's degree may be accepted for either of these doctoral programs. Both programs are offered in an online format to meet the needs of working professionals. Nova Southeastern University is a recognized leader of distance education and has a well-respected history of innovation and leadership in the health professions.

### Transition Doctor of Physical Therapy Program (T-D.P.T.)

Given the increasingly complex health care environment and the growing body of knowledge in the physical therapy profession, entry-level education in physical therapy is rapidly shifting toward the clinical doctoral degree. The vision of the American Physical Therapy Association (APTA) is that by the year 2020, physical therapy will be provided by physical therapists who are doctors of physical therapy. In support of this vision, the Physical Therapy Department at Nova Southeastern University offers the Transition Doctor of Physical Therapy (T-D.P.T.) Program. The Transition D.P.T. Program is a postprofessional

curriculum designed to advance the knowledge, attitudes, and skills of practicing physical therapists to those commensurate with the current entry-level doctorate in physical therapy. This program focuses on the professional roles of the D.P.T., clinical reasoning and differential diagnosis, evidence-based practice, and patient/client management related to optimizing movement, function, and health. The degree awarded upon completion of the program is the doctor of physical therapy degree.

### Program Outcomes

The transition D.P.T. program will prepare physical therapists who will

- make clinical decisions based on experience and evidence in the research literature by posing clear clinical questions, selecting appropriate databases to find peer-reviewed literature, and interpreting the evidence
- document clinical reasoning using deductive reasoning skills and disablement terminology during the five steps of patient/client management (examination, evaluation, diagnosis, prognosis and plan of care, and interventions)
- select valid/reliable tests, outcome measures, and interventions that are supported by the literature and appropriate for the patient, setting, and diagnostic classification
- plan and implement prevention and wellness programs using the principles of behavior change theory and sound teaching strategies
- screen all patients for medical disease, distinguishing musculoskeletal from medical conditions in order to identify when referral to other practitioners is needed

- identify key pharmacologic classifications and their relevance to physical therapy
- interpret radiology/imaging tests as they relate to clinical anatomy and signs/symptoms of pathology
- use contemporary principles of motor control and motor learning when teaching a patient a novel skill or retraining a motor task
- develop an appropriate exercise program for any patient/client based on safe and accurate exercise testing and exercise science principles
- conduct a systematic needs assessment and organizational analysis of a physical therapy practice in order to effect change when in the role of consultant, administrator, or manager

### Requirements for Admission

The following are requirements for admission:

1. graduation from an entry-level physical therapy (PT) program that is accredited by the Commission on Accreditation of Physical Therapy Education (CAPTE), or a current physical therapy license in the United States. Graduates from physical therapy schools in other countries are also eligible after review of academic credentials by an appropriate agency and a review of the Test of English as a Foreign Language (TOEFL) scores. Agencies that evaluate foreign courses for institution equivalency include:

- World Education Services  
P.O. Box 745  
Old Chelsea Station  
New York, New York 10113-0745  
(212) 966-6311  
[www.wes.org](http://www.wes.org)

- Josef Silny & Associates  
7101 SW 102nd Avenue  
Miami, Florida 33173  
(305) 273-1616  
(305) 273-1338 fax  
[www.jsilny.com](http://www.jsilny.com)  
[info@jsilny.com](mailto:info@jsilny.com)

- Educational Credential Evaluators  
P.O. Box 514070  
Milwaukee, Wisconsin 53203-3470  
(414) 289-3400  
[www.ece.org](http://www.ece.org)

Foreign Credentialing Commission  
on Physical Therapy\* (FCCPT)  
511 Wythe Street  
Alexandria, VA 22314, USA  
(703) 684-8406  
[www.fccpt.org](http://www.fccpt.org)

\*This agency specializes in evaluation for U.S. PT licensure.

2. students who are within two months (60 days) of graduation from an entry-level PT program are also eligible for admission. These individuals must provide proof of graduation by the 61st day of their first D.P.T. semester or they will have to withdraw from classes until the subsequent semester.

3. a grade point average of 75 percent or higher from the entry-level physical therapy coursework. If the GPA is lower than 75 percent, applicants must achieve a minimum score of 500 on both the verbal and quantitative portions of the Graduate Record Examination (GRE). The GRE is only required for students whose GPA is below 75 percent.

4. selection of students for the transition D.P.T. program is based on a review of the application, prior academic performance, and three letters of recommendation. We seek students who are motivated and self-directed learners, with strong oral and written communication and critical thinking skills.

The dean is empowered to evaluate the total qualifications of every student and to modify requirements in unusual circumstances.

## Application Procedures

Applicants must submit

- a completed application form along with a nonrefundable application fee of \$50
- official transcripts from all undergraduate, professional, and graduate institutions attended, sent directly to  
Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
Physical Therapy Department  
Office of Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905
- three letters of evaluation from persons who can evaluate the applicant's performance as a physical therapist and/or the applicant's ability for doctoral studies
- official GRE scores and TOEFL scores when appropriate

After an evaluation of credentials, qualified applicants may be interviewed. Students can transfer up to six credit hours from another accredited postprofessional program based on the assessment by the Office of Admissions or visit our Web site at [www.nova.edu/pt](http://www.nova.edu/pt). Applications are accepted year round. After an evaluation of credentials, qualified applicants may be interviewed. Students can transfer up to two classes (or 6 credit hours) at the master's degree level from another accredited institution. The Office of

Admissions evaluates all requests for transfer credits and assessment of professional credentials.

## Foreign Coursework

Undergraduate coursework taken at a foreign institution must be evaluated for U.S. institution equivalence. For more information, please call the Physical Therapy Admissions Office at (954) 262-1110.

## Transition D.P.T. Tuition and Fees

Tuition for 2010–2011 is \$450 per credit hour. Tuition is subject to change by the board of trustees without notice.

T-D.P.T. students who are members of the American Physical Therapy Association (APTA) will receive a 15 percent tuition discount each term (with written proof of membership).

The first term's tuition and fees are due on or before registration day. Tuition for each subsequent semester is due on or before the appropriate registration day.

## Curriculum Overview

The transition D.P.T. Program offers three semesters per year. These are winter (January–May), summer (June–August), and fall (September–December). The summer term is designated for elective courses only, that is, students that enter with a baccalaureate degree. Classes are designed using a hybrid model, meaning coursework is provided online with two days of on-campus classes halfway through the term. This on-campus institute occurs in March and October and is mandatory for all students.

The curriculum is designed for working physical therapists, where students can enroll part-time (3–7 credit hours) or full time (8–12 credit hours). The

required coursework and total number of hours needed to graduate vary depending on the previous educational background of each applicant. Applicants with a baccalaureate degree must complete 13 classes (45 credits), including 7 core courses and 6 elective courses. Applicants with a master's degree from another university must complete seven core classes (27 credits). Applicants with an M.P.T. from Nova Southeastern University must complete six core courses (24 credits). Applicants with a Ph.D. degree must complete five core courses (20 credits).

### Requirements for Graduation

In order to graduate from the Transition D.P.T. Program, students must

- be of good moral character
- complete the required number of semester hours as outlined
- satisfactorily completed all program requirements for the degree within six years from the first date of classes
- have a minimum GPA of 80 percent for all D.P.T. coursework
- satisfactorily meet all financial and library obligations
- complete the T-D.P.T. exit survey

### Course of Study

Applicants with a master's degree take seven core courses (see below). Applicants with a baccalaureate degree as their highest degree take seven core course and six electives.

### Seven Core Courses

- PHT 7215—Introduction to Clinical Reasoning, Differential Diagnosis, and Disablement Models (3 credits)

- PHT 7405—Professional Roles of the Doctor of Physical Therapy (4 credits)
- PHT 7415—Radiology and Pharmacology (4 credits)
- PHT 7605—Applying Research in Evidence-Based Practice (4 credits)
- PHT 7615—Advanced Differential Diagnosis (4 credits)
- PHT 7805—Contemporary Theories of Movement, Exercise, and Motor Learning (4 credits)
- PHT 7815—Patient/Client Management (4 credits).

*(choice of six practice areas: neuro-muscular, manual therapy, geriatrics, pediatrics, women's health, sports, or practice management)*

### Elective Courses (six courses chosen from the following list)

- PHT 7005—Payer Systems (3 credits)
- PHT 7015—The Therapist and Cultural Diversity (3 credits)
- PHT 7235—Practicing in an Evolving Health Care System (3 credits)
- PHT 7025—The Health Care Educator (3 credits)
- PHT 7045—Professional Writing (3 credits)
- PHT 7065—Independent Study: Case Report (3 credits)
- PHT 7075—Independent Study (2–3 credits)
- PHT 7905—Clinical Internship (4 credits)
- PHT 7925—Survey of Alternative and Complementary Therapies (3 credits)

- PHT 7955—The D.P.T. in Private Practice (3 credits)
- PHT 7965—Quantitative Analysis of Human Movement (3 credits)

T-D.P.T. students may select electives from other doctoral programs within the College of Allied Health and Nursing upon approval of the T-D.P.T. program director.

Applicants with a master's degree: 7 classes (27 credits)

- PHT 7215—Introduction to Clinical Reasoning, Differential Diagnosis, and Disablement Models (3 credits)
- PHT 7405—Professional Roles of the Doctor of Physical Therapy (4 credits)
- PHT 7415—Radiology and Pharmacology (4 credits)
- PHT 7015—The Therapist and Cultural Diversity (3 credits)
- PHT 7605—Research Methods and Evidence-Based Practice (4 credits)
- PHT 7615—Advanced Differential Diagnosis (4 credits)
- PHT 7805—Contemporary Theories of Movement, Exercise, and Motor Learning (4 credits)
- PHT 7815–75—Patient/Client Management (4 credits)

Applicants with an M.P.T. degree from NSU or a doctoral degree: 6 classes (24 credits)

- PHT 7405—Professional Roles of the Doctor of Physical Therapy (4 credits)
- PHT 7415—Radiology and Pharmacology (4 credits)
- PHT 7605—Research Methods and Evidence-Based Practice (4 credits)
- PHT 7615—Advanced Differential Diagnosis (4 credits)
- PHT 7805—Contemporary Theories of Movement, Exercise, and Motor Learning (4 credits)
- PHT 7815–75—Patient/Client Management (4 credits)

## Transition D.P.T. Course Descriptions

### Core Courses

#### **PHT 7215—Introduction to Clinical Reasoning, Differential Diagnosis, and Disablement Models**

Students explore the conceptual basis for effective clinical reasoning and differential diagnosis using the disablement model, clinical decision-making model, elements of patient/client management, and reflective practice theories. This course is a prerequisite for PHT 7615—Advanced Differential Diagnosis. (3 credits)

#### **PHT 7405—Professional Roles of the Doctor of Physical Therapy**

This course explores the emerging roles of the physical therapist as a doctor of physical therapy (D.P.T.). Emphasis is on the role of the D.P.T. in patient/community education; prevention and health promotion; and managing services through administration, consultation, and supervision. The class is organized into two modules: Module 1—Teaching/Learning and Health Promotion/Disease Prevention and Module 2—Managing Services Through Administration, Consultation, and Supervision. (4 credits)

#### **PHT 7415—Radiology and Pharmacology**

This course provides an overview of current medical diagnostic tests and medical interventions so that physical therapists can recognize the indication and implication for medical diagnostic tests, including diagnostic imaging; augment information obtained from the physical therapy examination with information provided by the physician or physician assistant; and communicate effec-

tively with other health care providers regarding medical diagnosis and treatment. Course content is organized throughout the semester based in three subsections: diagnostic imaging, pharmacology, and laboratory tests. Students will synthesize information from three key areas of medical management, including laboratory tests, radiological imaging exams, and clinical pharmacology. (4 credits)

#### **PHT 7605—Applying Research in Evidence-Based Practice**

This class reviews basic research methodology, including statistical analysis, so that students can critically read and evaluate research. Students are exposed to Sackett's model of evidence-based practice (EBP). Students will learn to use the PICO format to ask clinically relevant questions. Students will locate the source of evidence, evaluate the evidence, and make recommendations based on the evidence. The class explores the work of the Philadelphia Panel, the PEDRO scale, and Hooked on Evidence as methods for critiquing the literature. A course outcome is that all students contribute to the Hooked on Evidence database of the American Physical Therapy Association. (4 credits)

#### **PHT 7615—Advanced Differential Diagnosis**

This course is designed to offer students the skills to make clinical decisions and screen medical diseases independently from a physician, dentist, or psychologist. It is not the intent of this course to instruct the students in becoming medical diagnosticians, but rather to give the students the tools to rule out medical

problems in which physical therapy is contraindicated or that may require additional medical or psychological evaluation or treatment. Course content includes subjective and physical exam of the cardiovascular, pulmonary, gastrointestinal, urogenital, integumentary, and endocrine systems, among others. **Prerequisite:** PHT 7215—Introduction to Clinical Reasoning, Differential Diagnosis, and Disablement Models (4 credits)

### **PHT 7805—Contemporary Theories of Movement, Exercise, and Motor Learning**

This course addresses current theories of motor function (motor control and motor learning), exercise training (therapeutic exercise and aerobic conditioning), and movement science to enhance the practitioner's ability to choose and apply appropriate examinations and interventions for patients with movement-related dysfunction. Students will apply contemporary theories to develop treatment strategies related to their current practice environment or patient population. (4 credits)

### **PHT 7825–95—Patient/Client Management**

Students expand their current scope of PT practice in one of six practice areas (manual therapy, neuromuscular, geriatrics, pediatrics, women's health, or practice management). This allows the clinician to expand his or her learning in a focused area using the elements of patient/client management, including examination, evaluation, diagnosis, prognosis and plan of care, and interventions. Each patient/client course provides both didactic information and laboratory skills related to the area of practice. (4–5 credits)

- PHT 7825—Patient/Client Management: Neuromuscular
- PHT 7835—Patient/Client Management: Women's Health
- PHT 7845—Patient/Client Management: Pediatrics
- PHT 7855—Patient/Client Management: Geriatrics
- PHT 7865—Patient/Client Management: Sports
- PHT 7875—Patient/Client Management: Practice and Management
- PHT 7435—Patient/Client Management: Manual Therapy—Vertebral Column I
- PHT 7425—Patient/Client Management: Manual Therapy—Peripheral Joint I

### **PHT 7005—Payer Systems**

This course covers issues related to cost containment, managed care, and reimbursement as applied to the provision of physical therapy in multiple health care environments. Students are introduced to theories of health care reform, societal factors effecting reimbursement, and the concept of becoming a change agent. (3 credits)

### **PHT 7015—The Therapist and Cultural Diversity**

This course explores how multicultural issues impact the physical therapy profession. Students will develop awareness of cultural issues and beliefs, form an understanding regarding cultural diversity, develop a tolerance toward other belief systems, and appreciate the differences that each ethnic and cultural belief system embraces. (3 credits)

### **PHT 7235—Practicing in an Evolving Health Care System**

This course enhances the clinician's understanding of the rapidly changing health care system by addressing concepts of cost containment and managed care, legal and ethical issues of patient management, patient/client advocacy, and conflict resolution. (3 credits)

### **PHT 7025—The Health Care Educator**

Patient education is an integral part of health care in every setting, from patient treatment to health and wellness promotion to injury and illness prevention. The focus of this course is to explore the many issues that impact patient education, from both a health care professional and a management perspective. Adult education theory, patient/therapist interaction, communication barriers, strategies for success, Web-based patient education, documentation, federal laws and initiatives, and standards for patient education are some of the topics students will examine. (3 credits)

### **PHT 7045—Professional Writing**

Upon completion of this course, students will be able to write grammatically sound papers for both the academic and work environments. The course reviews basic grammar, punctuation, and syntax rules. Students then engage in writing six different types of papers: autobiography, expository, descriptive, persuasive, humorous, and writing on writing. (3 credits)

### **PHT 7065—Independent Study: Case Report**

Students engage in an individualized program of study to develop and write a case report, based on a case in his or

her own practice, using the guidelines from the American Physical Therapy Association. The process of writing a case report includes identification of an appropriate case, a review of the literature, identification of valid and reliable outcome measures, and documentation of the elements of patient/client management: examination, evaluation, diagnosis, prognosis and plan of care, and interventions. (3 credits)

### **PHT 7075—Independent Study**

This class allows the student to pursue an area of interest in physical therapy that is not offered elsewhere in the curriculum. This class is supervised by a faculty member, but directed by the student's goals and objectives. The student is responsible for a) designing his or her objectives and submitting them to the faculty member for feedback/approval; b) developing an action plan for work that will be completed and submitting this plan for approval to the course instructor; and c) completing a minimum of three graded assignments. Examples of independent study topics include: developing an educational course, developing a unique area of interest, or developing ideas for future research after conducting a thorough review of current literature. (2–3 credits)

### **PHT 7905—Clinical Internship**

Supervised, on-site clinical experiences are offered as an elective course for practitioners who identified clinical mentoring as a personal learning need. In addition, clinical residencies are recommended for individuals returning to practice after an extended absence, or for individuals wishing to shift into a different practice environment. Students will be involved in the



development of potential clinical sites suited to their educational, geographic, and learning needs. A minimum of four weeks of full-time hours (or equivalent hours part-time) is required. (4 credits)

#### **PHT 7925—Survey of Alternative and Complementary Therapies**

Synthesize information from various alternative and/or complementary therapies in order to help clients make informed choices. The course includes a survey of alternative health care practices in different cultures and a comparison between eastern and western practices. (3 credits)

#### **PHT 7955— The D.P.T. in Private Practice**

This course provides students with the theoretical framework and practical skills needed to develop and/or grow a private physical therapy practice. Upon completion of the course, students will have investigated all aspects of developing a private practice, including practice identity (mission/vision), marketing, reimbursement issues, financing, and development of a tangible business plan. (3 credits)

#### **PHT 7965—Quantitative Analysis of Human Movement**

This course is designed to help health professionals gain an overview of theory and methods on quantitative measurement and analysis of human movement. It will focus on kinematic, kinetic, and electromyographical analysis in the clinical setting and on carrying the information into clinical practice. Knowledge gained in this course will help in developing quantitative measurements that can be implemented in the clinic for documentation and for clinical research. (3 credits)

## **Doctor of Philosophy in Physical Therapy (Ph.D.)**

As our health care delivery systems change and our knowledge base broadens, it becomes important for licensed physical therapists to continue their formal education to assume roles as consultants, educators, researchers, advanced clinicians, and health care leaders.

The Physical Therapy Department at NSU offers the Doctor of Philosophy Program to address these needs by offering a curriculum that will prepare its students to become leaders of the profession.

### **Curriculum Overview**

The Doctor of Philosophy in Physical Therapy (Ph.D.) Degree Program is taught in a distance education format. Sixty semester hours are required beyond the entry-level master's degree in physical therapy or beyond an advanced master's degree (in which the undergraduate or master's degree was in physical therapy). It requires 75 semester hours beyond the undergraduate professional physical therapy degree.

Requirements include satisfactory completion of all courses, seminars, independent study, and research.

Coursework is divided into required core, specialty, and elective courses. The elective courses are offered in education, administration, computer technology in education, clinical tracks, and public health.

### **Expected Outcomes of Student Learning**

Graduates of the program will be able to

- serve as change agents in health care organizations

- negotiate and advocate for patients, self, and others for the provision of health care services
- address health care issues of patients through the life cycle
- educate patients, students, peers and other health care providers in order to accomplish treatment goals and the goals of the program
- consult with organizations for the development of health care services.
- contribute to physical therapy practice through clinical research
- critically appraise the evidence from scientific literature, synthesize findings across studies, and draw appropriate inferences based on current knowledge
- formulate study questions that will advance scientific knowledge about topics of importance
- ensure that the study meets accepted standards for the use of human subjects and ensures the responsible conduct of research in design, implementation, and dissemination

### **Accreditation**

Nova Southeastern University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097, Telephone number: 404-679-4501) to award associate's, bachelor's, master's, educational specialist, and doctoral degrees.

### **Requirements for Admission**

1. Applicants must be licensed physical therapists who are graduates of schools accredited by the Commission on Accreditation of Physical Therapy Education (CAPTE). Graduates of

physical therapy schools in other countries are also eligible with review of academic credentials by an appropriate agency and a review of TOEFL scores, when appropriate.

2. Selection of students for the physical therapy doctoral (Ph.D.) program is based on prior academic performance, clinical experience, and references. We seek students who have qualities such as assertiveness, initiative, leadership, self-understanding, openness, strong communication skills, and who are critical thinkers. Students must also be motivated and self-directed.

3. Applicants must hold either a bachelor's degree in physical therapy or a master's degree, entry-level master's degree (e.g., M.S.P.T., M.P.T.), or entry-level doctoral degree (D.P.T.) in physical therapy.

4. Completion of the Graduate Record Examination (GRE) or equivalent standardized test for applicants entering the program with a bachelor's degree is required. The dean is empowered to evaluate the total qualifications of every student and to modify requirements in unusual circumstances.

### Computer Requirements

All students are **required** to have a computer with the following recommended minimum specifications:

- Pentium III
- 800MHz  
minimum processor
- 512 MB RAM minimum
- video capable of 800 x 600  
screen display or better
- DVD and CD-ROM capability
- full duplex sound card and speakers

- 56.6 baud modem
- Internet connection with private Internet service provider (ISP) for access from home to the Internet (DSL or cable Internet access is recommended.)
- Windows XP or Vista
- Microsoft Office 2003 or newer with PowerPoint, Word, and Excel minimum
- surge suppressor electrical outlet
- suggested option: laptop computer with wireless Internet capability for use on campus

### Application Procedures

Applicants must submit

1. a completed application form along with a nonrefundable application fee of \$50

2. official transcripts from all undergraduate, professional, and graduate institutions attended, sent directly to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
Physical Therapy Department  
Office of Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905.

3. three letters of evaluation from persons who can evaluate the applicant's performance as a physical therapist and/or the applicant's capability for doctoral studies

4. copies of all professional certifications, registrations, and other relevant credentials.

5. official GRE scores or equivalent standardized test scores for applicants entering the program with a bachelor's

degree in physical therapy and TOEFL scores, if appropriate (After an evaluation of credentials, qualified applicants may be interviewed.)

### Foreign Coursework

If applicant attended or is a graduate of a foreign institution(s), all coursework from the foreign institution(s) must be evaluated for U.S. institutional equivalence. The official evaluation must be sent directly from the evaluation service. You should contact one of the following for evaluations:

- World Education Services  
P.O. Box 745  
Old Chelsea Station  
New York, New York 10113-0745  
(212) 966-6311  
[www.wes.org](http://www.wes.org)
- Josef Silny & Associates  
7101 SW 102nd Avenue  
Miami, Florida 33173  
(305) 273-1616  
(305) 273-1338 fax  
[www.jsilny.com](http://www.jsilny.com)  
[info@jsilny.com](mailto:info@jsilny.com)
- Educational Credential Evaluators  
P.O. Box 514070  
Milwaukee, Wisconsin 53203-3470  
(414) 289-3400  
[www.ece.org](http://www.ece.org)
- Foreign Credentialing Commission on Physical Therapy\* (FCCPT)  
511 Wythe Street  
Alexandria VA 22314, USA  
(703) 684-8406  
[www.fccpt.org](http://www.fccpt.org)

\*This agency specializes in evaluation for U.S. PT licensure.

### Doctoral Tuition and Fees

Tuition for 2010–2011 (subject to change by the board of trustees without notice) is \$550 per credit hour. An

NSU student services fee of \$750 maximum is also required annually.

The first term's tuition and fees are due on registration day. Tuition for each subsequent semester is due on the appropriate registration day.

### Requirements for Graduation

In order to be eligible for the Ph.D. degree, students shall

- be of good moral character
- complete a minimum of 60 semester hours of coursework beyond a master's degree or up to 75 semester hours beyond the professional undergraduate degree
- satisfactorily complete the program requirements for the degree with a minimum overall GPA of 80 percent, and at least 80 percent in each course
- satisfactorily meet all financial and library obligations
- successfully complete and defend their dissertation and have it approved (The dissertation will be done under the direction of a member of the Dissertation Committee. The committee must approve all aspects of the project. Students will have up to seven years to complete the degree requirements.)

### Course of Study

For students holding a master's or entry-level master's degree in physical therapy with transferable credits:

Requirements	Semester Hours
Required HPD core courses	12
Required PT core courses	23
Specialty and elective courses	9
Dissertation	16

Students may transfer up to 6 credits from an accredited post-professional or advanced degree program (doctoral level only). Final determination of acceptable transfer credits will be at the discretion of the program director.

Students holding an undergraduate degree in physical therapy with transferable credits will take up to 15 additional credit hours of required courses.

Courses will be conducted in an institute format and as independent study under faculty supervision. The distance education format enables students to continue their practice as physical therapists while earning the degree. The distance education program does require students to be in residence on campus twice per year for two days per registered course. Graduates will be awarded the Ph.D. degree upon satisfactory completion of all degree requirements.

## Doctor of Philosophy in Physical Therapy Course Descriptions

Note: Listed to the right of each entry are semester credits.

\*Required core course

\*\*PHT 7500 or PHT 7510 is a required course.

†May be required for students who enter the program with an undergraduate degree in physical therapy

### **PHT 6000—Professional and Business Communication**

Covers several aspects of communication: therapeutic communication, business communications, and oral presentation skills. (3 credits)†

### **PHT 6010—Organizational Behavior**

This course will introduce a broad range of behavioral science theory and applications for managers and subordinates in modern organizations, focusing on managing and developing organizations constructively to deal with change. Emphasis is on the integration of managerial psychology and managerial activity. This course will formulate a dynamic approach to the concept of systems for managing organizations to achieve organization and personal

objectives. The course will rely heavily on participants' own background and skills to produce an effective learning experience leading to the development of a successful managerial strategy for the future. (2 credits)†

### **PHT 6020—Ethical and Legal Issues in Health Care I**

Covers ethical, moral, and legal issues affecting health care delivery: confidentiality, consent, reimbursement, patient rights, abuse, risk management. Covers organizational control laws, codes, and standards affecting therapy practice. Students complete a written project on a selected topic or question. (3 credits)†

### **PHT 6030—Health Care Policy and History**

Explores the history of health care delivery and policy development in the United States and globally. Students will analyze, from a historical perspective, the impact of history on policy development, both present and future. References include works on history and policy as well as analysis of the works of health care analysts. (3 credits)†

### **PHT 6140—Ethnocultural Issues in Health Care**

This course is a survey of ethnic and cultural issues, focusing on the insight and skills necessary to effectively deliver health care services to individuals in minority ethnic groups and cultures. Attention will be directed at individual communication and assessment skills necessary to positively effect the practitioner-patient interaction and enhance patient compliance. (3 credits)†

### **HPH 7200—Research Ethics**

Health care professionals are required to act morally and ethically. This course is designed to expand the student's basic understanding of ethics to promote ethical awareness and enable students to derive better health care decisions that reduce risk of potential ethical consequence. By exposing students to bioethics and controversial ethical issues typically encountered in current health care practice, students practice making difficult decisions. Students will synthesize and implement strategies for applying morals, values, and ethics systematically in the various settings in which health care is delivered. Considering the perspectives of all stakeholders and the role of the health care provider, patient advocate, professional, and consumer of medical care, students will gain workable knowledge of contemporary ethical issues and appreciate that ethics permeate the majority of decisions made in health care. (3 credits)\*

### **HPH 7300—Biostatistics I**

The application of quantitative techniques has expanded rapidly in medical decision making. The emphasis on evidence-based health care

means that health care workers must be able to evaluate the results from published health care research studies. This course is the first of two courses designed to provide students with the knowledge of quantitative techniques. The course will cover descriptive statistics, parametric group comparison statistics, and basic nonparametric statistics, as well as provide an introduction to linear modeling. (3 credits)\*

### **HPH 7310—Biostatistics II**

The aim of this course is to enable students to appreciate the richness of statistical science and to invite them to the concepts of probabilistic thinking. Statistics is the science of the future. Any technique that they are going to learn will help them to understand the unknown better, and in turn, it will increase their success in other courses and in future professional careers. Principles of statistical inference build upon the Biostatistics I course. As such, a prerequisite for enrolling in this course is Biostatistics I. The goals of this course are threefold: (1) introduce the basic concepts of probability and methods for calculating the probability of an event, (2) assist students in developing an understanding of probability theory and sampling distributions, and (3) familiarize students about inferences involving one or two populations, ANOVA, regression analysis, and chi-square tests. (3 credits)\*

### **HPH 7400—Research Design**

This course will provide students with a basic understanding of the methods and approaches used in health-related research. A major emphasis of the course will be on the conceptualization and design of research studies. The course will cover ethics, formulation

of research questions, study design, reliability, validity, sampling, measurement, and interpretation of research findings. It will prepare students to critically evaluate published literature and to design sound research studies. The course will be both theoretical and applied. Students will be challenged to apply the theoretical concepts presented in the classroom and in the readings to design a study to address a health-related issue of their choice. (3 credits)\*

#### **PHT 7010—Professional Issues in Physical Therapy and Health Care**

Current issues facing the physical therapy profession. Students participate in group discussions and complete a written project on a selected topic. (3 credits)\*

#### **PHT 7020—Legal Issues in Health Care II**

Students explore more global and controversial bioethical topics in the health care arena. Legal and ethical issues related to topics including animal and human research, genetic engineering, cloning, alternative medicine, life support, organ donation, and telemedicine are analyzed. Students will participate in group discussions, conduct interviews of local legal authorities, and complete written assignments on highly controversial health care practices. (3 credits)\*

#### **PHT 7030—Health Care Policy and Health Care Reform**

Covers global issues of health care reform, examining the theories, methodologies of reform, the impact of each on physical therapy, and how practitioners can effect change. (4 credits)\*

#### **PHT 7111—Qualitative Research Methods**

The focus of this course is to intro-

duce students to qualitative research methods of inquiry. Phenomenological inquiry, grounded theory, ethnography, and other approaches to qualitative research will be examined. Students will gain understanding of the history of qualitative research, the philosophies that drive the various methodologies, strategies for data collection and analysis, ethical considerations, applications and implications of using qualitative research methods in physical therapy. Students will have the opportunity to experience qualitative data collection and analysis. (3 credits)

#### **PHT 7112—Measurement Issues in Physical Therapy Research**

The course is designed for the health professionals to gain an overview of measurement theory and methods. It will focus on problems and challenges of validity and reliability of measurement, and emphasize development, testing, and refinement of norms and criteria-referenced data collection instruments. It will help the student in the development of an analytical view of measurement issues. (3 credits)\*

#### **PHT 7120—Critical Inquiry**

Students are required to evaluate research literature in a scientific and systematic way. Knowledge gained in this course will help in developing research proposals using different designs. This course is required for students entering with a bachelor's degree. **Prerequisites:** HPH 7300 and HPH 7310 (3 credits)

#### **PHT 7113—Advanced Methods and Design**

The focus of this course is to introduce the research design and analysis that is involved in advanced and multivariate statistical methods. Topics include multiple and logistic regression, multivariate analysis of variance, factor

analysis, discriminant analysis, and time series analysis. Single subject design and research synthesis will also be introduced. Emphasis is on understanding and applying statistical concepts and techniques to research data as well as developing the ability to critically analyze research methods used in the scientific literature. (3 credits)

#### **PHT 7130—Dissertation Seminar**

The purpose of this course is to prepare students for writing their dissertations as the final requirement for completion of the Ph.D. Students will be guided in the development of a research question, related research design, data collection, and the appropriate statistical methods as steps toward developing an idea paper and a dissertation proposal. Attention will also be paid to how results of research might be presented and how the discussion portion of a dissertation should be approached. Various referencing methods will be discussed and the advantages and disadvantages of each presented. A variety of writing styles that are appropriate for scientific writing and various ways to improve dissertation writing will be examined. Students will be required to investigate the application of research designs to research problems in physical therapy by analyzing classmates' research questions, proposed research designs, data collection methods, and proposed statistics. (3 credits)

#### **PHT 7140—The Therapist and Cultural Diversity**

In this course, the impact of ethnocultural issues, policies, and procedures on the therapist will be assessed and analyzed. The complex issues of policy implementation and planning in dealing with ethnocultural issues will be explored. Continuation of PHT 6140. No prerequisite. (3 credits)

#### **PHT 7200—Teaching and Learning in Physical Therapy**

Examines the complexity of learning and behavioral change. Students explore their own learning styles as well as a variety of learning theories, including computer-based learning. (3 credits)

#### **PHT 7210—Patient Education**

Applies teaching-learning theories to patient education issues. Students will complete a project related to teaching and learning for patient groups or for individual patient care. Offered as independent study as needed. **Prerequisite:** PHT 7200 (3 credits)

#### **PHT 7300—Consulting Skills**

The roles and skills of consultants. Students complete a paper on selected topics in consultation. (3 credits)

#### **PHT 7310—**

##### **Consulting as a Physical Therapist**

Independent study course. Students apply consulting concepts to prepare a report on a hypothetical or actual consulting situation in physical therapy. (3 credits)

#### **PHT 7400—Independent Study**

Individualized study under the supervision of assigned instructor. Requires permission of graduate coordinator. (1–10 credits)

#### **PHT 7401—Independent Study**

Individualized study under the supervision of assigned instructor. Requires permission of graduate coordinator. (1–4 credits)

#### **PHT 7420—**

##### **Health Care Delivery Systems**

Addresses issues in various health care systems where physical therapists work. Students discuss and complete



a report on management of physical therapy services in selected delivery systems. (3 credits)

**PHT 7430—**

**Physical Therapy Management**

Addresses management of fiscal and human resources. Students take part in discussions and complete a case study. (3 credits)

**PHT 7500—Computing Technology in Education**

Students are initially exposed to concepts and principles underlying the design and development of courseware. Then students apply teaching and learning theories to the creation of courseware, on the topic of their choice, saved to a zip disk or CD. The goal of the course is for students become proficient in the analysis, design, development, implementation, and evaluation of effective courseware. (3 credits) \*

**PHT 7510—Designing for the Web**

This course explores current concepts and principles of designing educational material for the Web. Through “discovery learning,” students develop principles of multimedia design for the Web, identify best and worst Web sites based on those principles, apply the newly acquired design principles to the development of individual home pages, and create a Web-based course using WebCT. (3 credits)\*\*

**PHT 7610—Neuroscience**

Individual study course designed to meet the needs of the individual student. (3 credits)

**PHT 7620—Joint and Skeletal Muscles: Structure and Function**

Individual study course designed to meet the needs of the individual student. (3 credits)

**PHT 7700—**

**Advanced Clinical Competency I**

Students will enroll in an advanced clinical course of their choice. The course may be offered by the physical therapy program or in the form of a clinical certificate that is approved by the Doctoral Committee. (4 credits)

**PHT 7710—**

**Advanced Clinical Competency II**

A project in the area of chosen clinical competency will be completed under the direction or agreement of the assigned mentor. (4 credits)

**PHT 7720—Leadership**

This online course explores leadership methods and theories in health care and physical therapy in a rapid changing environment. The student is expected to gain knowledge to be able to critically analyze leadership styles and compare and contrast leadership skills and management skills. (3 credits)

**PHT 7740—**

**Comprehensive Examination**

Students in the Ph.D. program in physical therapy must take the comprehensive examination (pass/fail) to be eligible to start the dissertation phase. To be eligible to take the examination, all core courses must be completed. The examination includes questions related to research, ethical and legal issues, health care policies, and professional issues. The student has six hours to complete the examination without using any resources. (0 credits)

**PHT 7800—Dissertation**

Supervised, original project on a physical therapy-related topic will be completed under the supervision of the Dissertation Committee. (16 credits)\*

### **PHT 7801—Research Seminar**

This sequence of four, one credit courses is intended to prepare the student for the processes of analysis and understanding of the research literature, which is crucial to the dissertation process. These courses designed as one credit per semester are required during the first four semesters that students are taking courses in the physical therapy Ph.D. program. Other students in the program are encouraged to participate. These courses are designed to reinforce the material being presented in the research courses and to promote intellectual discussion on physical therapy science and scholarly works. Students will be required to read and discuss the research literature related to physical therapy illustrating the relationship of research design to statistical analysis and how researchers approach research questions and problems. (1 credit)\*

## **Physician Assistant Department— Fort Lauderdale**

Physician assistants (PAs) serve as essential components of a medical system that continues to struggle to provide quality, affordable health care for all Americans. Their roles in the system will continue to grow as changes in health care indicate. Today, more than 88,000 individuals are eligible to practice as PAs under physician supervision. PAs provide care that would otherwise be provided by physicians. PAs take medical histories, perform physical examinations, order and interpret tests, diagnose and treat illnesses, perform medical/surgical procedures, assist in surgery, and can write

prescriptions in all states. PAs work in most medical specialties and in all types of communities. Many PAs practice family and internal medicine, and more than one-third are in towns with fewer than 50,000 residents. The PA profession is one of the fastest growing health care professions. The United States Bureau of Labor Statistics (BLS) projects that employment of PAs is expected to grow 39 percent from 2008 to 2018.

It is the obligation of each physician/PA team to ensure that the PA's scope of practice is identified; that delegation of medical tasks is appropriate to the PA's level of competence; that the relationship of, and access to, the supervisory physician is defined; and that a process of performance evaluation is established. Adequate responsible supervision of the PA contributes to both high-quality patient care and professional growth.

The Physician Assistant Department offers an innovative program that lasts 27 months. Upon successful completion of study, students will be awarded the master of medical science degree in physician assistant. The curriculum includes rigorous instruction in basic science subjects, followed by clinical medicine, physical diagnosis, clinical laboratory medicine, clinical pathophysiology, clinical procedures and surgical skills, electrocardiography, pharmacology, radiology, and others. Students also take courses that include health care law and ethics, epidemiology and biostatistics, research methodology, and cultural issues in health care.

During the clinical year of study, the student participates in challenging

clinical rotations at a variety of health care facilities associated with the program. These rotations include family medicine, internal medicine, pediatrics, gynecology and prenatal care, emergency medicine, and surgery, all complemented by three elective rotations. NSU graduates are prepared to work in many clinical areas, both in primary care and specialty medicine.

## Accreditation

The NSU Physician Assistant Program is accredited by the Accreditation Review Commission for Physician Assistants, Inc., (ARC-PA). The NSU Physician Assistant Program has enjoyed continuing accreditation since its inception and was recently awarded continuing accreditation until 2015. The department is a member of the Physician Assistant Education Association (PAEA).

Nova Southeastern University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097, Telephone number: 404-679-4501) to award associate's, bachelor's, master's, educational specialist, and doctoral degrees.

## Mission Statement

To provide a primary care training program designed for, and dedicated to, producing competent physician assistants who will provide quality health care in rural, urban, underserved, and culturally diverse communities; to increase the accessibility of quality health care in the primary care setting; to prepare students for lifelong learning and leadership roles; and to promote the physician assistant profession.

## Admissions Requirements

Prospective students are selected by the committee on admissions (COA), which considers the overall qualities of the applicant. Areas of consideration include interpersonal skills, personal motivation, knowledge and understanding of the PA profession, academic performance and level of achievement, life experiences, quality and length of prior health care experience, and recommendations/evaluations. Personal interviews are offered to the most qualified applicants to assess interpersonal and communication skills, maturity, integrity, altruistic attitude, and commitment to a PA career.

1. Applicants must have a minimum cumulative GPA of 2.9 and a minimum science GPA of 2.9 on a 4.0 grading scale **in order for an application to be considered.**

Successful applicants in the past have typically had both cumulative and science GPAs of 3.4 or higher, GRE score (verbal, quantitative, and analytical) in the 40th percentile or higher in each of the three categories, and letters of recommendation from individuals with whom the applicant has had a professional working relationship in the health care field. Higher consideration may be given to applicants with prior patient contact experience.

2. Prior to matriculation, applicants must have received a baccalaureate degree from a regionally accredited college or university.

3. The college requires the students to earn a grade of C (2.0) or better in each of the following required courses:

- college math (3 semester hours)
- English (6 semester hours, including 3 of English composition)

- humanities/arts (3 semester hours)
- social sciences (9 semester hours)
- general biology (or zoology), including laboratory (4 semester hours)
- microbiology, including laboratory (4 semester hours)
- general chemistry I and II, including laboratory (8 semester hours)
- human anatomy (3 semester hours)
- human physiology (3 semester hours)
- biochemistry or organic chemistry (3 semester hours)
- genetics (3 semester hours)

Applicants are encouraged to complete their elective coursework in the areas of behavioral, physical, and social sciences or in the humanities.

The following courses are recommended:

- biochemistry or organic chemistry laboratory (1 semester hour)
- anatomy laboratory (1 semester hour)
- physiology laboratory (1 semester hour)
- medical terminology (1 semester hour)

4. Graduates of foreign institutions where English is not the primary language of instruction must present transcripts showing at least 18 semester hours (or equivalent quarter hours) of study from a regionally accredited college or university in the United States. Of these 18 semester hours,

- 3 semester hours must be in English composition (courses do not include ESOL)

- 3 semester hours must be in English literature (courses do not include ESOL)
- 3 semester hours must be in public speaking (courses do not include ESOL)

The remaining 9 semester hours can be any course of the applicant's choosing.

5. Prior health care experience is **highly recommended** and is considered for admission. Those applicants who have prior health care experience must submit verifiable information about their experience.

6. All applicants are required to submit official scores from the Graduate Record Examination (GRE) general test to the Office of Admissions. Our school code is 5522. The test must have been taken within the past five years and must be taken early enough for official scores to be received in the admissions office by the supplemental application due date of January 31. Applications will not be considered complete without GRE scores. Testing information for the GRE may be obtained from [www.gre.org](http://www.gre.org) or by telephone at (609) 921-9000.

### Computer Requirements

Throughout the curriculum, students are required to access various instructional materials and information from the Internet. All students are required, therefore, to have a computer with minimum suggested specifications:

- PC or Mac computer
- Internet connection with private Internet service provider (ISP) for access from home to the Internet (If a laptop computer is utilized, a wireless modem will allow access to the campus-wide NSU wireless network.)

- sound card and speakers
- CD-ROM
- Windows XP or NT operating system
- Microsoft Office 2003 or later, with PowerPoint, Word, and Excel
- convenient access to a printer

## Application Procedures

### 1. Apply to CASPA

The Physician Assistant Program participates in the Centralized Application Service for Physician Assistants (CASPA) for the receipt and processing of all applications. CASPA takes no part in the selection of students. CASPA applications are submitted online at [www.caspaonline.org](http://www.caspaonline.org) or by writing

CASPA  
P.O. Box 9108  
Watertown, MA 02471

The CASPA application deadline is December 1 in order to be considered for admission in June.

### 2. Send transcripts and letters of recommendation/evaluation to CASPA

All official college transcripts from all undergraduate, graduate, and professional institutions attended must be sent directly from the institutions.

Three letters of recommendation/evaluation must be sent to CASPA. One letter of recommendation/evaluation must be sent from an individual (other than a relative or friend) such as an academic adviser, professor, coworker, or supervisor. Two letters of recommendation/evaluation must be from health care professionals, one of which must be from a physician or PA with whom you have worked, shadowed, or volunteered.

### 3. Send GRE scores to NSU

#### PA Office of Admissions

Official Graduate Record Exam (GRE) scores must be submitted directly to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
Physician Assistant Department  
Office of Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905.

The NSU code number is 5522. Your GRE test scores must be less than five years old and must be taken early enough for official scores to be received by the supplemental application deadline of January 31.

### 4. Complete Supplemental Application

Once the CASPA application has been received by Nova Southeastern University, a supplemental application will be made available online.

Your complete supplemental application must be received no later than January 31 in order to be considered for admission for the June entering class. Once we receive your GRE scores, supplemental application, and \$50 fee, your file will be reviewed.

The applicant will not be considered for a possible interview until all of these requirements have been received by the EPS.

### Personal Interviews

Once your application is complete, the committee on admissions will decide whether or not your application is strong enough to warrant an invitation for a personal interview. Interviews are

conducted on the Nova Southeastern University, Fort Lauderdale, Florida, campus and are by invitation only. Interviews will be held from September through May. An invitation to interview is not a guarantee of admission.

### **Current College Coursework**

All prerequisite coursework must be completed by the end of May in order to be considered for the June entering class. If, at the time of application, coursework is in progress or anticipated, please identify these courses on the supplemental application.

### **Transcripts**

All applicants who are accepted must submit official transcripts from all schools attended to the NSU EPS Physician Assistant Admissions Office prior to matriculation. It is the responsibility of the applicant to ensure that arrangements are made for these transcripts to be sent.

### **Tuition and Fees**

- Tuition for 2010–2011 (subject to change by the board of trustees with-out notice) is \$24,785
- Acceptance fee is \$500. This fee is required to reserve the accepted applicant's place in the entering first-year class. This advance payment will be credited to the tuition payment due on registration day, but is not refundable in the event of a withdrawal. It is payable within two weeks of an applicant's acceptance.
- Deposit is \$250. This is due February 15, under the same terms as the acceptance fee.
- Preregistration fee is \$250. This is due April 15th, under the same terms as the acceptance fee.

- A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.

The first semester's tuition and fees, less the \$1,000 previously paid, are due on or before registration day. Tuition for each subsequent semester is due on or before the appropriate registration day. Students will not be admitted until their financial obligations have been met.

Applicants should have specific plans for financing 27 months of professional education. This should include tuition, living expenses, books, equipment, and miscellaneous expenses. Each student is required to carry adequate health insurance. Students may avail themselves of the insurance plan obtainable through the university.

There are a limited number of part-time work-study assignments available. Due to the demands of the PA curriculum, the program discourages any outside employment.

### **Requirements for Graduation**

In order to be eligible to graduate from the Physician Assistant Program, students shall

- successfully complete all academic and clinical courses and degree requirements
- have satisfactorily met all financial and library obligations
- attend in person the rehearsal and commencement program, at which time the degree is conferred

### **Academic Dismissal in the Physician Assistant Program**

See the suspension/dismissal section of the student handbook.

## **Readmission Policy in the Physician Assistant Program**

In selected cases, and only with the approval of the department chair and college dean, a student may be allowed to be noncompetitively matriculated with the next first-year class. It is emphasized that this only refers to those few students with special academic or personal issues.

## **Course of Study**

The Physician Assistant Program curriculum is completed following a baccalaureate degree from a regionally accredited college or university in the United States. The comprehensive curriculum, completed in a consecutive manner, is oriented to primary care and prepares the student to practice in a wide variety of clinical settings. The first 14 months of study consist of basic sciences and clinically related didactic courses. All courses are required and must be successfully completed before advancing to the clinical year. During this time frame, students are generally in class from Monday through Friday, 8:00 a.m. to 5:00 p.m., although there are occasional evening and/or weekend hours. Because of its highly integrated and compact curriculum, the PA department requires matriculants to complete the entire curriculum at this campus. No advanced placement, transfer of credit, or credit for experiential learning will be granted.

The clinical year is devoted to 13 months of clinical training with required clinical rotations in family medicine, emergency medicine, pediat-

rics, prenatal care/gynecology, surgery, and internal medicine. The students also complete three elective rotations, for a total of nine clinical rotations. The required rotations and two of the elective rotations are six weeks in length. The remaining elective rotation is four weeks in length.

Each required rotation has assigned readings and learning objectives. At the end of each required rotation, a written comprehensive subject examination is administered and must be passed. During rotations, students will be supervised by licensed practitioners and will actively participate in patient assessments, perform common laboratory procedures, interpret common diagnostic examinations, and help manage common medical problems. The work hours during clinical rotations are set by the preceptor and can include evening and weekend hours. Students are required to work a minimum of 40 hours per week, however many rotation sites require students to work substantially more hours per week.

Upon completion of the course of study, students will be awarded the master of medical science degree in physician assistant. Graduates will be eligible to take the Physician Assistant National Certification Examination (PANCE) administered by the National Commission on Certification of Physician Assistants.

The role of the physician assistant requires a high level of expertise and responsibility. The applicant must possess the ability and desire to complete a rigorous academic and clinical program and make a commitment to continued learning.

## Curriculum Outline for the Master of Medical Science (M.M.S.) Physician Assistant Program—Fort Lauderdale

Start Date: June 2011

Length: 27 months

Degree: Master of Medical Science (M.M.S.) in Physician Assistant

Didactic: 14 months

Clinical: 13 months

### First Semester—Summer I (June–August)

	Lecture	Laboratory	Credit Hours
ANA 5420 Anatomy	54	28	5
PHS 5400 Physiology	54	0	4
PAC 5400 Clinical Pathophysiology	48	0	3
PAC 5000 Physical Diagnosis I	30	36	3
PAC 5002 Medical Terminology	4	14	1
PCO 5300 Biomedical Principles	18	0	1
PAC 5003 Fundamentals of Medical Imaging	18	0	1
PAC 5001 Introduction to the PA Profession	16	0	1
<b>Total Hours:</b>	<b>242</b>	<b>78</b>	<b>19</b>

### Second Semester—Fall (September–December)

	Lecture	Laboratory	Credit Hours
MIC 5400 Microbiology	52	0	3
PAC 5404 Legal and Ethical Issues in Health Care	34	0	2
PAC 5100 Physical Diagnosis II	30	36	3
PCO 5400 Pharmacology I	38	0	2
PAC 5110 Clinical Medicine and Surgery I	112	0	7
PAC 5130 Clinical Laboratory Medicine I	20	0	1
PAC 5229 Electrocardiography	30	6	2
<b>Total Hours:</b>	<b>316</b>	<b>42</b>	<b>20</b>



### Third Semester—Winter (January–May)

		Lecture	Laboratory	Credit Hours
PAC 5200	Physical Diagnosis III	32	38	3
PAC 5210	Clinical Medicine and Surgery II	120	0	8
PAC 5310	Clinical Medicine and Surgery III	112	0	7
PAC 5131	Clinical Laboratory Medicine II	36	0	2
PCO 5410	Pharmacology II	72	0	4
PAC 5311	Clinical Psychiatry	45	0	3
PAC 5410	Complementary Medicine and Nutrition	30	0	2
PAC 5412	Interpretation and Evaluation of Medical Literature	32	0	2
<b>Total Hours:</b>		<b>479</b>	<b>38</b>	<b>31</b>

### Fourth Semester—Summer II Advanced Didactic (June–July)

		Lecture	Laboratory	Credit Hours
PAC 5460	Life Support Procedures and Skills	24	40	3
PAC 5510	Clinical Procedures and Surgical Skills	58	26	5
PAC 5129	Health Promotion and Disease Prevention	22	0	1
PAC 5006	PA and Health Care Dynamics	18	0	1
PAC 5010	Core Competencies	15	0	1
PAC 5407	Clinical Pharmacology	50	1	3
PAC 5408	Clinical Genetics	36	0	2
<b>Total Contact Hours:</b>		<b>223</b>	<b>67</b>	<b>16</b>

**Clinical Curriculum—Second Year  
(August 2009–August 2010)**

	Weeks	Contact Hours	Credit Hours
PAC 6304 Prenatal Care and Gynecology	6	270	6
PAC 6311 Internal Medicine	6	270	6
PAC 6313 Surgery	6	300	6
PAC 6315 Emergency Medicine	6	270	6
PAC 6317 Pediatrics	6	240	6
PAC 6318 Family Medicine	6	250	6
PAC 6401 Elective I	6	270	6
PAC 6402 Elective II	6	270	6
PAC 6308 Elective III	4	160	4
PAC 6500 Graduate Project			3
<b>Total Contact Hours:</b>		<b>2,300</b>	<b>55</b>

Curriculum is subject to change as directed by the department.

## Physician Assistant—Fort Lauderdale Course Descriptions

Note: Listed at the end of each entry are lecture clock hours, laboratory clock hours, and semester hours.

\*Core competency course

### ANA 5420—Anatomy

Gross structures of the human body. Integrates topographic and radiographic anatomy to stress the application and importance of clinical anatomy. Develops the knowledge of the human anatomy necessary for the practice of the profession. (55-38-5)

### MIC 5400—Microbiology

Relationship of microbes to human disease and the host-immune response. Characteristics and properties of clinically significant bacteria, viruses, fungi, and selected parasites as well as the prevention, control, and diagnostic laboratory tests of their associated specific infectious diseases. (52-0-3)

### PAC 5000—Physical Diagnosis I\*

The Physical Diagnosis I course is an introduction to clinical medicine. Students will acquire the knowledge and skills essential to obtain a comprehensive medical history and perform a complete, head-to-toe physical examination. Emphasis is placed on normal physical findings. The course emphasizes patient interviewing, acquiring a medical data base, and performing a comprehensive physical examination. A combination of lectures, discussions, case studies, and performance skills labs will be used to present and practice the necessary concepts and skills. Lab sessions are used to optimize teaching of concepts. The student will be

required to demonstrate Competency-Based Learning during the performance of the required procedures and skills. **Prerequisite for PAC 5100. (28-38-3)**

### PAC 5001—Introduction to the Physician Assistant Profession

Introduces key concepts regarding the PA profession: an overview of the profession, the history of the profession, the current status of the profession, physician assistant education, current and future roles of the physician assistant, and the importance of joining and participating in physician assistant professional organizations. (16-0-1)

### PAC 5002—Medical Terminology

Use of medical language for appropriate and accurate communication in patient care. Students acquire a medical vocabulary, knowledge of medical terminology, and terminology reference material. (4-14-1)

### PAC 5003—

#### Fundamentals of Medical Imaging

Introduces key concepts for the understanding of normal medical diagnostic imaging. Emphasis is placed on images of normal human body structures and organs. (18-0-1)

### PAC 5006—

#### PA and Health Care Dynamics

This course focuses on the current status and issues regarding the physician assistant profession within the context of the U.S. medical system and today's health care workforce. The course discusses the structures and administrative principles in health care organizations, the role of the

practicing PA in unique environments such as rural and underserved medicine, reimbursement for services rendered, quality assurance, federal health care programs, reduction of medical errors, and other issues involving patient care. (24-0-1)

#### **PAC 5010—Core Competencies**

This course serves as a cumulative evaluation of the student's medical knowledge and physical exam techniques after completion of the first 12 months of the didactic curriculum. Students will participate in faculty-guided and facilitated simulated patient encounters to assess their understanding of a medical history interview and performance of a focused physical examination. Student competency will be evaluated by a comprehensive written examination and an OSCE-style practical examination. This course is a prerequisite for clinical rotations. (15-0-1)

#### **PAC 5100—Physical Diagnosis II\***

This course will build upon the skills learned in Physical Diagnosis I and will cover the essential skills for performing both complete and focused medical interviews and physical examinations. Using the skills developed in Physical Diagnosis I, students learn to accurately integrate and record historical and physical findings in the correct written format. This course introduces the student to the concept of medical problem solving. Emphasis is on the correlation of historical information and physical findings to the process of formulating a differential diagnosis and treatment plan. Through case presentations and medical simulations, students will use knowledge acquired

from previous and concurrent didactic courses to develop their problem-solving skills. **Prerequisite for PAC 5200.** (30-36-3)

#### **PAC 5110—Clinical Medicine and Surgery I**

Etiology, clinical manifestations, appropriate diagnostic evaluation, and the management of selected disease entities. (112-0-7)

#### **PAC 5129—Health Promotion and Disease Prevention**

This course focuses on wellness through preventative interventions and services. Epidemiology, risk factors, health screening, and community resources for a variety of health issues are presented. Emphasis is placed on the community and health care practitioner's efforts to protect against disease and environmental hazards, as well as individual responsibility for one's health. (22-0-1)

#### **PAC 5130—**

##### **Clinical Laboratory Medicine I**

Clinical laboratory utilization, rationale for selecting common diagnostic tests, interpretation of results, correlation between results and disease processes, and tests not available in the primary care setting that are necessary for diagnosis, treatment, and patient care. (20-0-1)

#### **PAC 5131—**

##### **Clinical Laboratory Medicine II**

Continuation of Clinical Laboratory Medicine I. Students will learn how to appropriately order and accurately interpret laboratory tests. These skills will help them diagnose common diseases related to major organ systems. (36-0-2)

**PAC 5200—Physical Diagnosis III\***

This course is a continuation of PAC 5100. Small-group and laboratory presentations will be used to refine the medical history concepts and physical examination skills acquired in Physical Diagnosis I and II. Instructional methods, including supervised clinical experience and patient simulations, will facilitate the students' integration of clinical information in order to diagnose disease and record historical and physical findings in written format. The course will expand on the skills essential for performing a thorough medical interview and physical examination and will enhance medical documentation skills. This course also continues to develop medical problem-solving skills. Emphasis is on correlation of historical information, physical findings, and pertinent laboratory results to formulate a diagnosis. Through case presentations and medical simulations, the student will also use knowledge acquired from previous and concurrent didactic courses to develop these skills. (32-38-3)

**PAC 5210—Clinical Medicine and Surgery II**

Continuation of Clinical Medicine and Surgery I. Common disease entities of major organ systems and primary care aspects of disease evaluation and treatment. (120-0-8)

**PAC 5229—Electrocardiography**

Provides the foundation for learning to interpret 12-lead ECG tracings and applying those principles to evaluate the ECG tracings of common cardiac disease, including the recognition of more subtle ECG abnormalities (30-6-2)

**PAC 5310—Clinical Medicine and Surgery III**

Continuation of Clinical Medicine and Surgery II. Disease entities of major organ systems. Lectures in primary care aspects of disease evaluation and treatment. (112-0-7)

**PAC 5311—Clinical Psychiatry**

Common psychosocial problems and psychiatric disorders encountered by health care professionals. Emphasizes the diagnosis and understanding of development of these behaviors, including the patient-clinician relationship, varieties of psychotherapy, communication skills, and appropriate intervention and treatment regimens. (45-0-3)

**PAC 5400—Clinical Pathophysiology**

This course focuses on pathophysiological changes seen in disease states. By following the progression from the normal physiologic state to the diseased state with its resultant clinical signs and symptoms, it serves as a bridge between the Physiology and the Clinical Medicine and Surgery courses. Beginning with discussions of general biologic and pathologic processes, the course then covers perturbations in the physiology, regulatory mechanisms, and anatomy of major body systems and organs. (48-0-3)

**PAC 5404—Legal and Ethical Issues in Health Care**

Introduces the role that ethics and the law play in the practice of health care. Principles and concepts in determining correct actions both legally and ethically are reviewed. Topics include professional behavior, solving an ethical dilemma, ethical implications involved in genetic engineering, the impaired clinician, the relationship

between providers, conflicts between providers, the clinician-patient relationship, euthanasia, risk management, confidentiality, informed consent, patients' directives, documentation, legal responsibilities as a witness, and domestic violence. The course also surveys contemporary health insurance programs being offered. (32-0-2)

#### **PAC 5407—**

##### **Clinical Pharmacology**

At the completion of this course, students will be able to appropriately prescribe medications in various clinical settings. Preparation for appropriate prescribing and administration of medicines is accomplished by studying drug classifications, pharmacodynamic actions, and the rationale for therapeutic use of prescription and nonprescription medications. In addition, students will be able to describe the potential advantages and disadvantages of specific therapeutic regimens, universal indications and contraindications for usage, dosing schedules, and the relative cost of commonly prescribed medications. Students will administer a variety of medications using patient simulators and will observe the clinical response. Common errors involving prescription writing will be discussed and practical exercises will require students to accurately write prescriptions and treatment orders. (45-0-3)

#### **PAC 5408—Clinical Genetics**

This course provides an up-to-date, clinically relevant genetics course to prepare PA students for medical practice in the age of genomics. Areas of focus include molecular and developmental genetics; family history with pedigree risk analysis; inheritance patterns; genetic testing and screening; cancer genetics; complex diseases; pharmacogenetics;

gene therapy; genetic ethical, legal, and social issues (ELSI) impact on primary care; and a current review of the Human Genome Project (HGP) and its affect on medicine. (36-0-2)

#### **PAC 5410—Complementary Medicine and Nutrition**

Survey of human nutrition in health care, and the principles for maintaining good health through nutrition. Addresses health hazards associated with dietary deficiencies, obesity, fad dieting, food contamination, diet management of selected diseases, and functional roles of vitamins and minerals. Additionally, this course will address introductory concepts, procedures, education, potential integration, and licensing in alternative and complementary medicine. (30-0-2)

#### **PAC 5412—Interpretation and Evaluation of Medical Literature**

This course is designed to introduce the student to the process of interpretation and evaluation of the medical literature. The components of published medical papers and physician assistant-authored research papers are evaluated in this course. The course will be “Web-guided” in that students will have the opportunity to access WebCT at any time to view reading assignments, the course calendar, the syllabus, and additional resources, as well as to contact the instructor. (32-0-2)

#### **PAC 5460—Life Support Procedures and Skills**

Introduction to the principles of advanced life support used in medical and surgical emergencies. Includes a review of the most common emergency situations encountered and provides hands-on practical training that will assist the student in developing the

skills required to stabilize patients with life-threatening conditions. Includes certification in basic (BLS) and Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS). (24-40-3)

#### **PAC 5510—Clinical Procedures and Surgical Skills**

Lectures and laboratory practicum introducing the clinical procedures and surgical skills used in the clinical setting: aseptic technique, operating room protocol, injections, knot tying and suturing techniques, venipuncture, arterial puncture, intravenous catheterization, nasogastric intubation, and urinary catheterization. (56-24-4)

#### **PAC 6304—Prenatal Care and Gynecology**

This required six-week rotation in outpatient and/or inpatient settings teaches perinatal care and treatment and gynecological diagnosis and management. Emphasizes primary care of the female patient including obstetrics. (270-0-6)

#### **PAC 6308—Clinical Elective III**

This is a four-week elective course rotation that will be completed at the end of the clinical year. Elective rotations provide opportunities to investigate a clinical subspecialty area or gain more experience in a required discipline. (160-0-4)

#### **PAC 6311—Internal Medicine**

Required six-week rotation in outpatient and/or inpatient settings. Diagnosis, treatment, and management of acute and chronic medical problems seen in the internal medicine practice. Emphasizes the adult nonsurgical patient. (270-0-6)

#### **PAC 6313—Surgery**

Required six-week rotation in outpatient and inpatient settings. Students learn to diagnose, treat, and manage the surgical patient. Emphasizes surgical entities commonly encountered in the primary care setting. (300-0-6)

#### **PAC 6315—Emergency Medicine**

Required six-week rotation in hospital emergency department or urgent care clinic teaches students to recognize, assess, and treat acute and life threatening clinical problems. Emphasizes common primary care emergencies. (270-0-6)

#### **PAC 6317—Pediatrics**

Required six-week rotation in outpatient and/or inpatient settings teaches normal and abnormal growth and development, disease prevention, and basic health care in neonates through adolescence. Emphasizes primary care of the pediatric patient. (270-0-6)

#### **PAC 6318—Family Medicine**

Required six-week rotation in outpatient settings. Comprehensive primary care of the individual patient within the family unit. Emphasizes the primary care needs of patients in rural, or inner-city communities. (250-0-6)

#### **PAC 6401—Clinical Elective I**

Elective, full-time, clinical rotation that provides an opportunity to investigate a clinical, medical, or surgical subspecialty area or gain more experience in primary care. Each six-week elective may be taken sequentially or separately, but not with the same preceptor. (270-0-6)

### **PAC 6402—Clinical Elective II**

Elective, full-time, clinical rotation that provides an opportunity to investigate a clinical, medical, or surgical subspecialty area or gain more experience in primary care. Each six-week elective may be taken sequentially or separately, but not with the same preceptor. (270-0-6)

### **PAC 6500—Graduate Project**

With the guidance of the faculty adviser, students will use the skills acquired throughout the year to prepare a team grand rounds presentation and paper on current issues in medicine. The project allows the students to demonstrate their ability to work as a team while engaging in a comprehensive literature review, preparing a presentation for medical peers, and effectively communicating a medical case and discussion to future fellow practitioners and faculty members in a clear, concise, and medically oriented manner. The presentation will be compiled into a clear, concisely written, team-developed paper to finalize the project. (0-0-3)

### **PCO 5300—Biomedical Principles**

Physiologic and biochemical basis for drug action. Basic biochemical pathways in which drugs intervene: metabolism, protein synthesis, and coagulation. Principles of pharmacokinetics: drug absorption, distribution, and metabolism are studied and applied to designing dosage regimens. (18-0-1)

### **PCO 5400—Pharmacology I**

Understanding the basis for pharmacologic intervention in patient care is the foundation for treatment of disease. Course begins an in-depth study of the pharmacodynamics of drugs used in the automatic nervous,

renal, and cardiovascular systems. Mechanisms of drug action, clinical uses, side effects, contraindications and drug interactions, pharmacokinetic considerations for special patient populations. (38-0-2)

### **PCO 5410—Pharmacology II**

Mechanisms of action, clinical uses, side effects, contraindications, drug interactions, and pharmacokinetics of drugs utilized in the treatment of diseases of the major organ systems. Treatment of HIV, geriatric and neonatal pharmacology, the pharmacological principles of nutrition, over-the-counter agents, toxicology, drugs of abuse, prescription writing, and evaluation of drug literature. (72-0-4)

### **PHS 5400—Physiology**

Clinically relevant physiologic principles of the major organ systems covered in Clinical Anatomy and Clinical Pathophysiology courses. (54-0-3)



## Physician Assistant Department— Southwest Florida

Physician assistants (PAs) serve as essential components of a medical system that continues to struggle to provide quality, affordable health care for all Americans. Their roles in the system will continue to grow as changes in health care indicate. Today, more than 88,000 individuals are eligible to practice as PAs under physician supervision. PAs provide care that would otherwise be provided by physicians. PAs take medical histories, perform physical examinations, order and interpret tests, diagnose and treat illnesses, perform medical/surgical procedures, assist in surgery, and can write prescriptions in all states. PAs work in most medical specialties and in all types of communities. Many practice family and internal medicine, and more than one-third are in towns with fewer than 50,000 residents. The PA profession was ranked the fourth fastest growing profession in the country by *CNN.com* and *Forbes.com* in 2007. The United States Bureau of Labor Statistics (BLS) projects that employment of PAs is expected to grow 39 percent from 2008 to 2018.

It is the obligation of each physician/PA team to ensure that the PA's scope of practice is identified; that delegation of medical tasks is appropriate to the PA's level of competence; that the relationship with, and access to, the supervisory physician is defined; and that a process of performance evaluation is established. Adequate responsible supervision of the PA contributes to both high-quality patient care and professional growth.

The Physician Assistant Department—Southwest Florida offers an innovative program that lasts 27 months. Upon successful completion of study, students will earn a master of medical science (M.M.S.) in physician assistant degree. The curriculum includes rigorous instruction in the basic sciences, clinical medicine, physical diagnosis, clinical laboratory medicine, clinical pathophysiology, clinical procedures and surgical skills, electrocardiography, radiology, psychiatry, legal and ethical issues in health care, cultural issues in health care, interpretation and evaluation of medical literature, complementary medicine and nutrition, and clinical pharmacology.

During the clinical year of study, the student participates in clinical rotations throughout the state of Florida, primarily within 80–100 miles from NSU's Fort Myers Student Educational Center. These rotations include family medicine, internal medicine, pediatrics, gynecology and prenatal care, emergency medicine, and surgery, all complemented by three elective rotations. Each student should expect to complete at least one rotation in a rural or underserved area. With a sound foundation in medical training, NSU graduates are prepared to work in many clinical areas, both in primary care and specialty medicine.

### Accreditation

The NSU Physician Assistant Program—Southwest Florida is accredited by the Accreditation Review Commission on Education for Physician Assistants, Inc., (ARC-PA). The NSU PA Department—Southwest Florida was initially awarded provisional accreditation in 2005 and received full, continuing accreditation in 2007. The department will undergo its next accreditation visit in

2011. The department is a member of the Physician Assistant Education Association (PAEA).

Nova Southeastern University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097, Telephone number: 404-679-4501) to award associate's, bachelor's, master's, educational specialist, and doctoral degrees.

### **Mission Statement**

- to provide an exemplary educational experience that emphasizes primary medical care, yet enables graduates to demonstrate competency and skill in a variety of clinical environments
- to inspire graduates to pursue lifelong learning
- to foster leadership qualities that will enable graduates to improve access to quality, affordable health care
- to heighten public awareness of the physician assistant profession

### **Admissions Requirements**

Prospective students are selected by the committee on admissions (COA), which considers the overall qualities of the applicant. Areas of consideration include interpersonal skills, personal motivation, knowledge and understanding of the PA profession, academic performance and level of achievement, life experiences, quality and length of prior health care experience, and recommendations/evaluations. Personal interviews are offered to the most qualified applicants to assess interpersonal and communication skills, maturity, altruistic attitude, and commitment to a PA career.

1. Prior to matriculation, applicants must have completed a baccalaureate degree from a regionally accredited college or university.

The program requires the students to earn a grade of C (2.0) or better in each of the upper division courses. Applicants must have a minimum cumulative GPA of 2.9 and a minimum science GPA of 2.9 on a 4.0 grading scale. Successful applicants in the past have typically had cumulative grade point averages in the range of 3.0 to 3.3 and higher.

2. The college requires the students to earn a grade of C (2.0) or better in each of the following required courses:

- college algebra or higher (3 semester hours)
- English (6 semester hours)
- humanities/arts (3 semester hours)
- social sciences (9 semester hours)
- general biology (or zoology), including laboratory (4 semester hours)
- microbiology, including laboratory\* (4 semester hours)
- general chemistry I and II, including laboratory (8 semester hours)
- human anatomy\* (3 semester hours)
- human physiology\* (3 semester hours)
- biochemistry or organic chemistry (3 semester hours)
- medical terminology (1 semester hour)
- electives (43 semester hours)

Applicants are encouraged to complete their elective coursework in the areas of behavioral, physical and social sciences, or the humanities.

\*Note: These science courses must have been completed within seven years prior to application to the program.

The following courses are recommended:

- biochemistry or organic chemistry laboratory (1 semester hour)
- anatomy laboratory (1 semester hour)
- physiology laboratory (1 semester hour)

Upon review of a student's record, the committee on admissions may require additional coursework and testing as a condition of acceptance.

3. Graduates of foreign institutions or of institutions where English is not the primary language of instruction must present transcripts showing at least 18 semester hours (or equivalent quarter hours) of study from a regionally accredited college or university in the United States. Of these 18 semester hours,

- 3 semester hours must be in English composition (courses do not include ESOL)
- 3 semester hours must be in English literature (courses do not include ESOL)
- 3 semester hours must be in public speaking (courses do not include ESOL)

The remaining 9 semester hours can be any courses of the applicant's choosing.

4. Prior health care experience is highly recommended and is considered for admission. Those applicants who have prior health care experience must submit verifiable information about their experience.

5. All applicants are required to submit official scores from the Graduate Record Examination (GRE) general test to the Office of Admissions. Our school code is 5522. The test must have been taken within the past five years and must be taken early enough for official scores to be received in the admissions office by the supplemental application due date of March 31. Applications will not be considered complete without GRE scores. Testing information for the GRE may be obtained from [www.gre.org](http://www.gre.org) or by telephone at (609) 921-9000.

### Computer Requirements

All students are **required** to have a computer with the following minimum specifications:

- Pentium III, 800MHz minimum processor
- 1 GB RAM
- DVD capability with CD-RW
- sound capability and speakers
- Internet connection with private Internet service provider (ISP) for access from home to the Internet
- printer

The following are recommended features:

- video capable of 800 x 600 screen display or better
- Windows 2007, XP, NT, or Vista
- Microsoft Office 2000 with PowerPoint, Word, and Excel minimum
- surge suppressor electrical outlet

The clinical year will require the student to track clinical experiences via a Web-based program. Students may elect to keep handwritten copies of clinical experiences to input into a desk top computer at a later date

or may elect to purchase a laptop, a Windows-compatible PDA, or a telephone with Internet connectivity to help aid in the clinical year tracking.

## **Application Procedures**

### **1. Apply to CASPA**

The Physician Assistant Program participates in the Centralized Application Service for Physician Assistants (CASPA) for the receipt and processing of all applications. CASPA takes no part in the selection of students. CASPA application packets may be obtained and submitted online at [www.caspaonline.org](http://www.caspaonline.org) or by writing

CASPA  
P.O. Box 9108  
Watertown, MA 02471

Questions regarding completion of the online application may be directed to CASPA's email address, [caspainfo@caspaonline.org](mailto:caspainfo@caspaonline.org), or by telephone at (617) 612-2080 or (617) 926-3571.

The CASPA application may be submitted as early as April 15, the year prior to the admission cycle. The CASPA application deadline is January 15 to be considered for admission in June.

### **2. Send transcripts and letters of recommendation/evaluation to CASPA**

All official college transcripts from all undergraduate, graduate, and professional institutions attended must be sent directly from the institutions to CASPA.

Three letters of recommendation/evaluation must be sent to CASPA. One letter of recommendation/evaluation must be sent from an individual (other than a relative or friend) such as an academic adviser, professor, coworker, or supervisor. Two letters of recommen-

dation/evaluation must be from health care professionals (neither of which can be a relative or friend), one of which must be from a physician or PA.

### **3. Send GRE scores to NSU PA Office of Admissions**

Official Graduate Record Exam (GRE) scores must be submitted directly to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
Physician Assistant Department  
Office of Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905.

The NSU code number is 5522. Your GRE test scores must be less than five years old and must be taken early enough for official scores to be received by the supplemental application deadline of March 31.

### **4. Complete Supplemental Application**

Once the CASPA application has been received by Nova Southeastern University, a supplemental application will be mailed to the applicant.

### **5. Send Supplemental Application**

Send the completed supplemental application to EPS.

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
PA Admissions Office  
3301 College Avenue  
PO Box 299000  
Fort Lauderdale, Florida  
33329-9905

Phone: (954) 262-1109

Fax: (954) 262-2282

Your completed supplemental application must be received no later than

February 15 in order to be considered for admission for the June entering class. Once we receive your GRE scores; copies of all professional certifications, registrations, licenses, or relevant credentialing materials; supplemental application; and \$50 fee, your file will be reviewed. Completed applications are reviewed on a “rolling” or periodic basis.

The applicant will not be considered for a possible interview until the application from CASPA, the supplemental application (signed and dated), the nonrefundable \$50 supplemental application fee, and the Graduate Record Evaluation (GRE) test scores are received by the Nova Southeastern University Physician Assistant Office of Admissions.

### **Personal Interviews**

Once your application is complete, the committee on admissions (COA) will decide whether or not your application is strong enough to warrant an invitation for a personal interview. Interviews are conducted on the Nova Southeastern University Fort Myers, Florida, campus and are by invitation only. Interviews will be held from August through May. An invitation to interview is not a guarantee of admission. Notice of acceptance or action by the COA will be on a “rolling” or periodic schedule; therefore, early completion of the application is in the best interest of the student.

Inquiries should be directed to

Director of Student  
Services and Recruitment  
Nova Southeastern University  
Physician Assistant  
Department—Southwest Florida  
3650 Colonial Court  
Fort Myers, Florida 33913-6636

Phone: (239) 274-1021  
or 800-541-6682, ext. 41021  
Fax: (239) 274-3488

### **Current College Coursework**

All prerequisite coursework must be completed by the end of May in order to be considered for the June entering class. If, at the time of application, some coursework is in progress or anticipated, please identify the courses on the supplemental application.

### **Transcripts**

All applicants who are accepted must submit official transcripts of all coursework to the NSU EPS Physician Assistant admissions office prior to matriculation. It is the responsibility of the applicant to ensure that arrangements are made for these transcripts to be sent.

### **Undergraduate/Physician Assistant Dual Admission Program with Hodges University**

Nova Southeastern University's College of Allied Health and Nursing has established an articulation agreement with Hodges University for a select number of highly motivated, qualified students interested in pursuing professional studies in the Physician Assistant Program. Candidates must complete all Hodges University core requirements and all prerequisite courses for entry into the NSU PA Program—Southwest Florida and will earn a baccalaureate degree from Hodges University prior to entry into the PA Program. In addition, candidates must maintain a specified grade point average during the undergraduate years and must achieve scores on the Graduate

Record Examination (GRE) that are no less than the mean scores for each element of the GRE of those students admitted to the NSU PA Program—Southwest Florida the prior year.

For information and requirements, contact

Office of Admissions  
Hodges University  
2655 Northbrooke Drive  
Naples, Florida 34119  
(239) 513-1122.

### **Tuition and Fees**

- Tuition for 2010–2011 (subject to change by the board of trustees without notice) is \$24,785.
- Acceptance fee is \$500. This fee is required to reserve the accepted applicant's place in the entering first-year class. This advance payment will be deducted from the tuition payment due on registration day, but is not refundable in the event of a withdrawal. It is payable within two weeks of an applicant's acceptance.
- Deposit is \$250. This is due February 15, under the same terms as the acceptance fee.
- Preregistration fee is \$250. This is due April 15, under the same terms as the acceptance fee.
- A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.

The first semester's tuition and fees, less the \$1,000 previously paid, are due on or before registration day. Tuition for each subsequent semester is due on or before the appropriate registration day. Students will not be admitted until their financial obligations have

been met. The financial ability of applicants to complete their training at the college is important because of the limited number of positions available in each class.

Applicants should have specific plans for financing 27 months of professional education. This should include tuition, living expenses, books, equipment, and miscellaneous expenses. Each student is required to carry adequate personal medical and hospital insurance. Students may avail themselves of the hospitalization insurance plan obtainable through the university.

Opportunity for a limited number of part-time work-study assignments is available. Due to the demands of the PA curriculum, the program discourages any outside employment.

### **Requirements for Graduation**

In order to be eligible to graduate from the Physician Assistant Program, students must

- successfully complete the program of study required for the degree with a minimum cumulative GPA of 2.0 (C)
- successfully complete all didactic and clinical coursework
- demonstrate professional behavior throughout the program
- satisfactorily meet all financial and library obligations
- attend, in person, the rehearsal and commencement program, at which time the degree is conferred

### **Academic Dismissal in the Physician Assistant Program**

See the suspension/dismissal section of the student handbook.

## **Readmission Policy in the Physician Assistant Program**

In selected cases, and only with the approval of the department chair and college dean, a student may be allowed to be noncompetitively matriculated with the next first-year class. It is emphasized that this only refers to those few students with special academic or personal issues.

## **Course of Study**

The Physician Assistant Program curriculum is completed following attainment of a baccalaureate degree, including specified course prerequisites. The comprehensive curriculum, completed in a consecutive manner, is oriented to primary care and prepares the student to practice in a wide variety of clinical settings. The first 14 months of study consist of basic sciences and clinically related didactic courses. All courses are required and must be successfully completed before advancing to the clinical year. During this time frame, students are generally in class from Monday through Friday, 8:00 a.m. to 5:00 p.m., although there are occasional evening and/or weekend hours. Because of its highly integrated and compact curriculum, the PA department requires matriculants to complete the entire curriculum at NSU Southwest Florida.

The clinical year is devoted to 13 months of clinical training with required clinical rotations in family medicine, emergency medicine, pediatrics, prenatal care/gynecology, surgery, and internal medicine. The students also complete three elective rotations, for a total of nine clinical rotations. The required subject rotations and two of the elective rotations are six weeks

in length. The remaining elective rotation is four weeks in length. All required rotations must be completed in the state of Florida, primarily in an area within 100 miles from the Fort Myers Student Educational Center. Each student should expect to complete at least one rotation in a rural or underserved area.

Each required rotation has assigned readings and learning objectives. At the end of each required rotation, a written comprehensive subject examination is administered and must be passed. During rotations, students will be supervised by licensed practitioners and will actively participate in patient assessments, perform common laboratory procedures, interpret common diagnostic examinations, and help manage common medical problems. The work hours during clinical rotations are set by the preceptor and can include evening and weekend hours. Students are required to work a minimum of 40 hours per week, although many rotation sites require a greater student participation.

Upon completion of the course of study, students will have earned a master of medical science (M.M.S.) in physician assistant degree. Graduates will be eligible to take the Physician Assistant National Certification Examination (PANCE) administered by the National Commission on Certification of Physician Assistants (NCCPA).

The role of the physician assistant requires a high level of expertise and responsibility. The applicant must possess the ability and desire to complete a rigorous academic and clinical program and make a commitment to continued learning.

## Curriculum Outline for the Master of Medical Science (M.M.S.) in Physician Assistant Program—Southwest Florida

Start Date: June

Length: 27 months

Degree: Master of Medical Science (M.M.S.) in Physician Assistant

Didactic: 14 months

Clinical: 13 months

### First Semester—Summer (June–August)

	Lecture	Laboratory	Credit Hours
PAN 5000 Anatomy	55	38	5
PAN 5100 Physiology	54	0	3
PAN 5101 Clinical Pathophysiology	45	0	3
PAN 5300 Physical Diagnosis I	42	20	3
PAN 5400 History Taking and Communication Skills	18	0	1
PAN 5003 Fundamentals of Medical Imaging	18	0	1
PAN 5002 Introduction to the PA Profession	16	0	1
<b>Total Hours:</b>	<b>248</b>	<b>58</b>	<b>17</b>

### Second Semester—Fall (September–December)

	Lecture	Laboratory	Credit Hours
PAN 5200 Microbiology	45	0	3
PAN 5403 Legal and Ethical Issues in Health Care	45	0	3
PAN 5310 Physical Diagnosis II	36	36	3
PAN 5410 Pharmacology I	38	0	2
PAN 5500 Clinical Medicine and Surgery I	112	0	7
PAN 5600 Clinical Laboratory Medicine I	36	4	2
PAN 5006 Electrocardiology	30	6	2
<b>Total Hours:</b>	<b>342</b>	<b>46</b>	<b>22</b>



### Third Semester—Winter (January–May)

		Lecture	Laboratory	Credit Hours
PAN 5320	Physical Diagnosis III	50	30	4
PAN 5510	Clinical Medicine and Surgery II	120	0	8
PAN 5520	Clinical Medicine and Surgery III	112	0	7
PAN 5610	Clinical Laboratory Medicine II	32	0	2
PAN 5420	Pharmacology II	72	0	4
PAN 5540	Clinical Psychiatry	45	0	3
PAN 5423	Interpretation and Evaluation of the Medical Literature	50	30	4
<b>Total Hours:</b>		<b>481</b>	<b>60</b>	<b>32</b>

### Fourth Semester—Summer II Advanced Didactic (June–July)

		Lecture	Laboratory	Credit Hours
PAN 5461	Life Support Procedures and Skills	24	40	3
PAN 5560	Clinical Procedures and Surgical Skills	44	24	3
PAN 5008	Health Promotion and Disease Prevention	22	0	1
PAN 5009	PA and Health Care Dynamics	30	0	2
PAN 5411	Complementary Medicine and Nutrition	30	0	2
PAN 5419	Clinical Pharmacology	46	0	3
PAN 5409	Cultural Issues in Health Care	30	0	2
<b>Total Hours:</b>		<b>226</b>	<b>64</b>	<b>16</b>

## Clinical Curriculum—Second Year (August–August)

	Weeks	Contact Hours	Credit Hours
PAN 6310 Emergency Medicine	6	270	6
PAN 6320 Family Medicine	6	250	6
PAN 6330 Internal Medicine	6	270	6
PAN 6340 Pediatrics	6	240	6
PAN 6350 Prenatal Care and Gynecology	6	270	6
PAN 6360 Surgery	6	300	4
PAN 6370 Clinical Elective I	6	270	6
PAN 6375 Clinical Elective II	6	270	6
PAN 6380 Clinical Elective III	4	160	4
PAN 6601 Graduate Project	0	0	3
<b>Total Hours:</b>	<b>52</b>	<b>2,300</b>	<b>55</b>

Curriculum is subject to change as directed by the department.

## Physician Assistant—Southwest Florida Course Descriptions

Note: Listed at the end of each entry are lecture clock hours, laboratory clock hours, and semester hours.

\*Core competency course

### PAN 5000—Anatomy

Gross structures of the human body. Integrates topographic and radiographic anatomy to stress the application and importance of clinical anatomy. Develops the knowledge of the human anatomy necessary for the practice of the profession. (55-38-5)

### PAN 5002—Introduction to the Physician Assistant Profession

Introduces key concepts regarding the PA profession: an overview of the profession, the history of the devel-

opment of the profession, the current status of the profession, physician assistant education, and current and future roles of the physician assistant. (16-0-1)

### PAN 5003—

#### Fundamentals of Medical Imaging

Introduces key concepts for the understanding of normal medical diagnostic imaging. Emphasis is placed on images of normal human body structures and organs. (18-0-1)

### PAN 5006—Electrocardiography

Provides the basics for learning to interpret normal ECG tracings and applying those principles to interpret the ECG tracings of common cardiac disease. (30-6-2)

### **PAN 5008—Health Promotion and Disease Prevention**

Focus on wellness through preventive interventions and services. Emphasizes responsibility for one's own health, the community's efforts to protect against disease, and environmental hazards. Epidemiology, risk factors, screening tests, and community resources are identified with each health issue presented. (22-0-1)

### **PAN 5009—PA and Health Care Dynamics**

This course focuses on the current status and issues regarding the physician assistant profession within the context of the U.S. medical system and today's health care workforce. It discusses the structures and administrative principles in health care organizations, the role of the practicing PA in unique environments with an emphasis on rural and underserved medicine, reimbursement for services rendered, quality assurance, federal health care programs, and other issues involving patient care. (30-0-2)

### **PAN 5100—Physiology**

Clinically relevant physiologic principles of the major organ systems covered in Clinical Anatomy. Pathological changes that occur in human physiology in the disease process. (54-0-3)

### **PAN 5101—Clinical Pathophysiology**

Pathological changes seen in disease states. Uses a major body system/organ approach. Etiology and progression from the normal physiological state to the diseased state with resultant clinical signs and symptoms. (45-0-3)

### **PAN 5200—Microbiology**

Relationship of microbes to human disease and the host-immune response. Characteristics and properties of clinically significant bacteria, viruses, fungi, and selected parasites as well as the prevention, control, and diagnostic laboratory tests of their associated specific infectious diseases. (45-0-3)

### **PAN 5300—Physical Diagnosis I\***

Principles and skills required to perform a complete medical history and physical examination. Emphasizes normal physical findings. **Prerequisite for PAN 5310 (45-0-3)**

### **PAN 5310—Physical Diagnosis II\***

Upon successful completion of the prerequisite PAN 5300, the students will build upon skills learned in Physical Diagnosis I. The student will have supervised practice of skills using simulated patient encounters. Integrating previously learned interviewing skills with principles from the clinical sciences, students elicit a comprehensive medical history, perform a complete physical examination, and formulate an initial diagnostic impression and diagnostic plan. Students are expected to continue to progress in recording information in written form and presenting the information orally to colleagues. **Prerequisite for PAN 5320 (36-36-3)**

### **PAN 5320—Physical Diagnosis III\***

Upon successful completion of the prerequisite PAN 5310, the student will continue to systematically learn abnormalities in the physical examination and specialty examination techniques. The student will have supervised practice of skills using simulated patient encounters. Integrating previ-

ously learned interviewing skills with principles from the clinical sciences, students elicit a comprehensive medical history, perform a complete physical examination, and formulate an initial diagnostic impression and diagnostic plan. Students are expected to continue to progress in recording information in written form and presenting the information orally to colleagues. (50-30-4)

#### **PAN 5400—History Taking and Communications Skills**

This course prepares the student to perform a complete medical history, identifying appropriate communication skills needed for interaction with patients, families, and colleagues. (18-0-1)

#### **PAN 5403—Legal and Ethical Issues in Health Care**

Introduces the role that ethics and the law play in the practice of health care. Principles and concepts in determining correct actions both legally and ethically are reviewed. Topics include solving an ethical dilemma, ethical implications involved in genetic engineering, the impaired clinician, conflicts between providers, conflicts between clinician and patient, euthanasia, risk management, confidentiality, informed consent, patients' directives, and documentation. **Prerequisite for PAN 5320 (45-0-3)**

#### **PAN 5409—Cultural Issues in Health Care**

Introduction to the skills and insights necessary in promoting health and dealing with illness in diverse populations. Issues discussed include the need for effective communication with an understanding of societal and cultural factors and how they impact on health

care efforts and use of the health care system. (30-0-2)

#### **PAN 5410—Pharmacology I**

Understanding the basis for pharmacologic intervention in patient care is the foundation for treatment of disease. Course begins an in-depth study of the pharmacodynamics of drugs used in the automatic nervous, renal, and cardiovascular systems. Mechanisms of drug action, clinical uses, side effects, contraindications and drug interactions, pharmacokinetic considerations for special patient populations. (38-0-2)

#### **PAN 5411—Complementary Medicine and Nutrition**

Survey of human nutrition in health care, and the principles for maintaining good health through nutrition. Addresses health hazards associated with dietary deficiencies, obesity, fad dieting, food contamination, diet management of selected diseases, and functional roles of vitamins and minerals. Additionally, this course will address introductory concepts, procedures, education, and licensing in alternative and complementary medicine. (30-0-2)

#### **PAN 5419—Clinical Pharmacology**

This course will advance the clinical skills of the student as they relate to the pharmacologic treatment of the patient. Specific topics will include the indicated medications in the treatment of common illnesses; their adverse effects; and drug interactions, dosage, and monitoring. (46-0-3)

#### **PAN 5420—Pharmacology II**

Mechanisms of action, clinical uses,

side effects, contraindications, drug interactions, and pharmacokinetics of drugs utilized in the treatment of diseases of the major organ systems. Treatment of HIV, geriatric and neonatal pharmacology, the pharmacological principles of nutrition, over-the-counter agents, toxicology, drugs of abuse, prescription writing, and evaluation of drug literature. (72-0-4)

#### **PAN 5423—Interpretation and Evaluation of the Medical Literature**

This course is designed to introduce the student to the processes of searching, interpreting, and evaluating medical literature for the purposes of application within an evidence-based medicine framework, as well as within a research framework. The essential components of a well-written medical or research paper are presented. The process by which these papers are transformed into publications is described (including the concepts of article preparation and revision and the steps required for submission to a physician assistant or other medical journal). This course is designed to adequately prepare students to complete the Graduate Project (PAN 6601), which results in a written medical or research paper. (50-30-4)

#### **PAN 5461—Life Support Procedures and Skills**

Introduction to the principles of advanced life support used in medical and surgical emergencies. Includes a review of the most common emergency situations encountered and provides hands-on practical training that will assist the student in developing the skills required to stabilize patients with life-threatening conditions. Includes certification in basic (BLS)

and Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS). (24-40-3)

#### **PAN 5500—Clinical Medicine and Surgery I**

Etiology, clinical manifestations, appropriate diagnostic evaluation, and the management of selected disease entities. (112-0-7)

#### **PAN 5510—Clinical Medicine and Surgery II**

Continuation of Clinical Medicine and Surgery I. Common disease entities of major organ systems and primary care aspects of disease evaluation and treatment. (120-0-8)

#### **PAN 5520—Clinical Medicine and Surgery III**

Continuation of Clinical Medicine and Surgery II. Disease entities of major organ systems. Lectures in primary care aspects of disease evaluation and treatment. (112-0-7)

#### **PAN 5540—Clinical Psychiatry**

Common psychosocial problems and disorders encountered by health care professionals. Emphasizes the diagnosis and understanding of development of these behaviors, including the patient-clinician relationship, varieties of psychotherapy, communication skills, and appropriate intervention and treatment regimens. (45-0-3)

#### **PAN 5560—Clinical Procedures and Surgical Skills**

Lectures and laboratory practicum introducing the clinical procedures and surgical skills used in the clinical setting: aseptic technique, operating room protocol, injections, knot tying and suturing techniques, venipuncture, arterial puncture, intra-

venous catheterization, nasogastric intubation, and urinary catheterization. This course is a prerequisite for clinical rotations. (44-24-3)

**PAN 5600—  
Clinical Laboratory Medicine I**

Clinical laboratory utilization, rationale for selecting common diagnostic tests, interpretation of results, correlation between results and disease processes, and tests not available in the primary care setting that are necessary for diagnosis, treatment, and patient care. (36-4-2)

**PAN 5610—  
Clinical Laboratory Medicine II**

Continuation of Clinical Laboratory Medicine I. Students will learn how to appropriately order and accurately interpret laboratory tests. These skills will help them diagnose common diseases related to major organ systems. (32-0-2)

**PAN 6310—Emergency Medicine**

Required six-week rotation in hospital emergency department teaches students to recognize, assess, and treat acute and life threatening clinical problems. Emphasizes common primary care emergencies. (270-0-6)

**PAN 6320—Family Medicine**

Required six-week rotation in outpatient settings. Comprehensive primary care of the individual patient within the family unit. Emphasizes the primary care needs of patients in rural, or inner-city communities. (250-0-6)

**PAN 6330—Internal Medicine**

Required six-week rotation in outpatient and/or inpatient settings. Diagnosis, treatment, and management of acute and chronic medical

problems seen in the internal medicine practice. Emphasizes the adult nonsurgical patient. (270-0-6)

**PAN 6340—Pediatrics**

Required six-week rotation in outpatient and/or inpatient settings teaches normal and abnormal growth and development, disease prevention, and basic health care in neonates through adolescence. Emphasizes primary care of the pediatric patient. (240-0-6)

**PAN 6350—  
Prenatal Care and Gynecology**

Required six-week rotation in outpatient and/or inpatient settings teaches perinatal care and treatment and gynecological diagnosis and management. Emphasizes primary care of the female patient including obstetrics. (270-0-6)

**PAN 6360—Surgery**

Required six-week rotation in outpatient and inpatient settings. Students learn to diagnose, treat, and manage the surgical patient. Emphasizes surgical entities commonly encountered in the primary care setting. (300-0-6)

**PAN 6370—Clinical Elective I**

Elective, full-time, clinical rotation that provides an opportunity to investigate a clinical, medical, or surgical subspecialty area or gain more experience in primary care. Each six-week elective may be taken sequentially at the same site or separately. (270-0-6)

**PAN 6375—Clinical Elective II**

Elective, full-time, clinical rotation that provides an opportunity to investigate a clinical, medical, or surgical subspecialty area or gain more experience in primary care. Each six-week elective may be taken sequentially at the same site or separately. (270-0-6)

### **PAN 6380—Clinical Elective III**

This is a four-week elective course rotation that will be completed at the end of the clinical year. Elective rotations provide opportunities to investigate a clinical subspecialty area or gain more experience in a required discipline. (160-0-4)

### **PAN 6601—Graduate Project**

With the guidance of a faculty adviser, students will use the skills acquired in Publication Skills and Medical Research (MMS 5412) to create a graduate project. The project features topics in clinical or administrative medicine and consists of a comprehensive literature review and evaluation and completion of a publishable review paper. The project allows the student to demonstrate his or her ability to research and compile information and to present that information in a clear, written form. (4-90-3)

## **Physician Assistant Department—Orlando**

Physician assistants (PAs) serve as an essential component of a medical system that continues to strive to provide quality, affordable health care for all individuals. Their roles in the system will continue to grow as changes in health care indicate. Today, more than 88,000 individuals are eligible to practice as PAs under physician supervision. PAs provide care that would otherwise be provided by physicians. PAs take medical histories, perform physical examinations, order and interpret tests, diagnose and treat illnesses, perform medical/surgi-

cal procedures, assist in surgery, and can write prescriptions in all states. PAs work in most medical specialties and in all types of communities. Many practice in primary care settings, and more than one-third are in towns with fewer than 50,000 residents. The PA profession is one of the fastest growing health care professions. The United States Bureau of Labor Statistics (BLS) projects that employment of PAs is expected to grow 39 percent from 2008 to 2018.

It is the obligation of each physician/PA team to ensure that the PA's scope of practice is identified; that delegation of medical tasks is appropriate to the PA's level of competence; that the relationship of, and access to, the supervisory physician is defined; and that a process of performance evaluation is established. Adequate responsible supervision of the PA contributes to both high-quality patient care and professional growth.

The Physician Assistant Department—Orlando offers a modern program that lasts 27 months. Upon successful completion of study, the student is awarded a Master of Medical Science degree in Physician Assistant. The curriculum includes rigorous instructions in basic science subjects, followed by clinical medicine, physical diagnosis, clinical laboratory medicine, clinical pathophysiology, clinical procedures, surgical skills, electrocardiography and radiology, and psychiatry. The student also takes courses in the Master of Medical Science program including health care law and ethics, epidemiology and biostatistics, research methodology, cultural issues in health care, publication skills, and medical research, as well as a graduate project.

During the clinical year of study, the student participates in clinical rotations predominantly in Central Florida. Required six-week rotations include family medicine, internal medicine, pediatrics, gynecology and prenatal care, emergency medicine, general surgery, and one selective of six weeks from one of the following areas: dermatology, otorhinolaryngology, or orthopedics. The clinical year contains one six-week and one four-week elective rotation. With a sound foundation in medical training, NSU graduates are prepared to work in many clinical areas, both in primary care and specialty medicine.

### Accreditation

The NSU Physician Assistant Program—Orlando has been awarded accreditation from the Accreditation Review Commission on Education for Physician Assistants, Inc., (ARC-PA). The next review for Continuing Accreditation is to be completed in March 2014. The department is a member of the Physician Assistant Education Association (PAEA).

Nova Southeastern University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097, Telephone number: 404-679-4501) to award associate's, bachelor's, master's, educational specialist, and doctoral degrees.

### Mission Statement

- to provide a high-quality training program designed for, and dedicated to producing, culturally competent physician assistants who will provide quality health care in rural, urban, underserved, and culturally diverse communities

- to inspire graduates to pursue lifelong learning
- to foster leadership qualities, which will enable graduates to improve access to quality, affordable health care
- to heighten the stature of the physician assistant profession

### Admissions Requirements

Prospective students are selected by the Committee on Admissions (COA), which considers the overall qualities of the applicant. Areas of consideration include interpersonal skills, personal motivation, knowledge and understanding of the PA profession, academic performance and level of achievement, life experiences, quality and length of prior health care experience, and recommendations/evaluations. Personal interviews are offered to the most qualified applicants to assess interpersonal and communication skills, maturity, altruistic attitude, and commitment to a PA career.

1. Prior to matriculation, applicants must have completed a bachelor's degree of their choice from any department other than physical education from a regionally accredited college or university in the United States. Degrees conferred greater than 10 years prior to the application date will not be accepted without 18 semester hours (or equivalent quarter hours) of prerequisites or upper division classes (typically defined as a course number beginning with a 3 or a 4) within the previous five years. The program requires the students to earn a grade of C (2.0) or better in each of the upper division courses. Applicants must have a minimum cumulative GPA of 2.9 and a minimum science



GPA of 2.9 on a 4.0 grading scale at the time of application and continuing through matriculation.

2. The college requires the students to earn a grade of C (2.0) or better in each of the following required courses:

- college algebra or higher (3 semester hours, not including statistics)
- English composition (3 semester hours)
- English literature (3 semester hours)
- humanities/arts (3 semester hours)
- social sciences (9 semester hours)
- general biology (or zoology), including laboratory (4 semester hours)
- general microbiology, including laboratory (4 semester hours)
- general chemistry I and II, including laboratory (8 semester hours)
- human anatomy and human physiology (6 semester hours)
- biochemistry or organic chemistry (3 semester hours)
- introductory statistics (3 semester hours)
- medical terminology (1 semester hour)

Applicants are encouraged to complete their elective coursework in the areas of behavioral, physical, and social sciences or the humanities.

The following courses are recommended:

- biochemistry or organic chemistry laboratory (1 semester hour)
- anatomy laboratory (1 semester hour)
- physiology laboratory (1 semester hour)

Upon review of a student's record, the Committee on Admissions may require additional coursework and testing as a condition of acceptance.

3. Graduates of foreign institutions where English is not the primary language of instruction must present transcripts showing at least 18 semester hours (or equivalent quarter hours) of study from a regionally accredited college or university in the United States. Of these 18 semester hours,

- 3 semester hours must be in English composition (courses do not include ESOL)
- 3 semester hours must be in English literature (courses do not include ESOL)
- 3 semester hours must be in public speaking (courses do not include ESOL)

The remaining 9 semester hours can be any courses of the applicant's choosing.

4. Prior health care experience is highly recommended and is considered for admission. Those applicants who have prior health care experience must submit verifiable information about their experience.

5. All applicants are required to have official scores from the Graduate Record Examination (GRE) general test submitted directly to the NSU PA Office of Admissions. The test must have been taken within the past five years and must be taken early enough for official scores to be received in the admissions office by the supplemental application due date of February 15. Applications will not be considered complete without GRE scores. Testing information for the GRE may be obtained from [www.gre.org](http://www.gre.org) or by telephone at (609) 921-9000.

## Computer Requirements

All students are required to have a laptop computer and a printer. The computer must have the following minimum specifications:

- Pentium IV or equivalent, 800MHz minimum processor
- 512 MB RAM
- sound capability and speakers
- Internet connection with private Internet service provider (ISP) for access from home to the Internet
- wireless capability
- combo DVD and RW drive
- printer
- internal or external Web cam

The following are recommended features:

- 800 x 600 or higher video display
- Windows XP
- Microsoft Office 2003 with PowerPoint, Word, and Excel minimum
- surge suppressor
- flash drive

## Application Procedures

### 1. Apply to CASPA

The Physician Assistant Program participates in the Centralized Application Service for Physician Assistants (CASPA) for the receipt and processing of all applications. CASPA takes no part in the selection of students. CASPA applications are available online at [www.caspaonline.org](http://www.caspaonline.org).

Questions regarding completion of the online application may be directed to CASPA's email address, [caspainfo@caspaonline.org](mailto:caspainfo@caspaonline.org), or by telephone to (617) 612-2080.

The CASPA application may be submitted as early as April 16, the year prior to the admission cycle. The CASPA application deadline is January 15 to be considered for admission in June.

### 2. Send transcripts and letters of recommendation/evaluation to CASPA

All official college transcripts from all undergraduate, graduate, and professional institutions attended must be sent directly from the institutions to CASPA.

Three letters of recommendation/evaluation must be sent to CASPA or the application will not be considered. One letter of recommendation/evaluation must be sent from an individual (other than a relative or friend) such as an academic adviser, professor, coworker, or supervisor. Two letters of recommendation/evaluation must be from health care professionals (neither of which can be a relative or friend), one of which must be from a physician or PA.

### 3. Send GRE scores to NSU PA Office of Admissions

Official Graduate Record Exam (GRE) scores must be submitted directly to

Nova Southeastern University  
Enrollment Processing Services  
(EPS)

College of Allied Health  
and Nursing  
Physician Assistant Department  
Office of Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905

The NSU code number is 5522. Your GRE test scores must be less than

five years old and must be taken early enough for official scores to be received by the supplemental application deadline of February 15.

#### 4. Complete Supplemental Application

Once the CASPA application has been received by Nova Southeastern University, a supplemental application will be mailed to the applicant.

#### 5. Send Supplemental Application

Send the completed supplemental application to EPS at the address below.

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
Physician Assistant Department  
Office of Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905

Phone: (954) 262-1109

Fax: (954) 262-2282

Your complete supplemental application must be received no later than February 15 in order to be considered for admission for the June entering class. Once we receive your GRE scores; copies of all professional certifications, registrations, licenses, or relevant credentialing materials; your supplemental application; and the nonrefundable \$50 application fee, your file will be reviewed. Completed applications are reviewed on a “rolling” or periodic basis.

The applicant will not be considered for a possible interview until the application from CASPA, the supplemental application (signed and dated), the \$50 supplemental application fee, and the Graduate Record Evaluation (GRE) test scores are received by the Nova

Southeastern University Physician Assistant Office of Admissions.

#### Personal Interviews

Once your application is complete, the Committee on Admissions (COA) will decide whether your application meets program criteria to warrant an invitation for a personal interview. Interviews are conducted at Nova Southeastern University’s Orlando Student Educational Center, and are by invitation only. An invitation is not a guarantee of admission. Notice of acceptance or action by the COA will be on a “rolling” or periodic schedule; **therefore, early completion of the application is in the best interest of the applicant.**

Inquiries should be directed to

Nova Southeastern University  
Orlando Student Educational Center  
Physician Assistant Department—  
Orlando  
Coordinator of Student Services  
and Recruitment  
4850 Millenia Blvd.  
Orlando, Florida 32839-6012  
Phone: (407) 264-5150  
Fax: (407) 264-5140

#### Current College Coursework

All prerequisite coursework must be completed by the end of May in order to be considered for the June entering class. If, at the time of application, some coursework is in progress or anticipated, please identify the courses on the supplemental application.

#### Transcripts

All applicants who are accepted must submit official transcripts of all coursework to the NSU EPS Physician Assistant Admissions Office prior to matriculation.

It is the responsibility of the applicant to ensure that arrangements are made for these transcripts to be sent.

### **Tuition and Fees**

- Tuition for 2010–2011 (subject to change by the board of trustees without notice) \$24,785. A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.
- Acceptance fee is \$500. This fee is required to reserve the accepted applicant's place in the entering first-year class, but is not refundable in the event of a withdrawal. It is payable within two weeks of an applicant's acceptance.
- Deposit is \$250. This is due February 15, or within two weeks of an applicant's acceptance, whichever is the latest, under the same terms as the Acceptance Fee.
- Preregistration fee is \$250. This is due March 15, or within two weeks of an applicant's acceptance, whichever is the latest, under the same terms as the Acceptance Fee.

The first semester's tuition and fees, less the \$1,000 previously paid, are due on or before registration day. Tuition for each subsequent semester is due on or before the appropriate registration day. Students will not be admitted until their financial obligations have been met. The financial ability of applicants to complete their training at the college is important because of the limited number of positions available in each class.

Applicants should have specific plans for financing 27 months of professional education. This should include tuition, living expenses, books, equipment, and miscellaneous expenses. Each stu-

dent is required to carry adequate personal medical and hospital insurance. Students may avail themselves of the hospitalization insurance plan obtainable through the university.

Due to the demands of the PA curriculum, the program discourages any outside employment. The program does not allow working for NSU or any of the associated clinical training sites.

### **Requirements for Graduation**

In order to be eligible to graduate from the Physician Assistant Program, students must

- successfully complete all academic and clinical courses and degree requirements
- have satisfactorily met all financial and library obligations
- attend, in person, the rehearsal and commencement program, at which time the degree is conferred

### **Academic Dismissal in the Physician Assistant Program**

See the suspension/dismissal section of the student handbooks.

### **Readmission Policy in the Physician Assistant Program**

In selected cases, and only with the approval of the department chair and college dean, a student may be allowed to be noncompetitively matriculated with the next first-year class. It is emphasized that this only refers to those few students with special academic or personal issues.

### **Remediation Policy**

The Nova Southeastern University Physician Assistant Program—Orlando is an intense academic

experience. Students will encounter both written and performance-based examinations. In specific courses, (Physical Exam/diagnosis, Clinical Medicine, and Surgery, etc.) all blocks of instruction must be successfully passed by the student in order to pass the entire course.

All students are aware of their performance at the end of every test. If a student fails to demonstrate the required competencies for a specific exam or block of instruction, he or she will be notified in writing and certain actions shall be taken. Students will receive email notification of failed grades from the academic coordinator. The student will meet with his or her academic adviser and/or the course director/instructor in order to discuss the academic situation and develop a plan for remediation of his or her academic deficiencies. The student will review the remediation and grade sheets and sign them. Students will coordinate a retesting date with the course director and that will be within seven calendar days of the test failure. The student must be proactive in coordinating additional study/tutoring time before the retest.

If the student successfully passes the retest, the student will receive a score of 75 percent.

If the student fails to demonstrate mastery of the course objectives by failing the retest, the student's case will be forwarded to the Student Progress Committee for further review and possible academic and administrative action. Recommendations will be referred to the department chair for final disposition.

## Course of Study

The Physician Assistant Program curriculum is completed following an acceptable bachelor's degree. The comprehensive PA curriculum, completed in a consecutive manner, is oriented to primary care and prepares the student to practice in a wide variety of clinical settings. The first 15 months of study consist of basic sciences and clinically related didactic courses. All courses are required and must be successfully completed before advancing to the next semester or the clinical year. During this time frame, students are generally in class from Monday through Friday, 8:00 a.m. to 4:20 p.m., although there may be occasional evening and/or weekend hours. Because of its highly integrated and compact curriculum, the PA department requires matriculants to complete the entire curriculum at NSU. Therefore, no requests for advanced placement, transfer of credit, and credit for experiential learning will be considered.

The clinical year is devoted to 12 months of clinical training with required six-week clinical rotations in family medicine, internal medicine, emergency medicine, pediatrics, prenatal care/gynecology, general surgery, as well as a selective rotation in orthopedics, dermatology, or otorhinolaryngology and a six-week and a four-week elective. The rotations are as follows:

- Emergency Medicine (six weeks)
- Family Medicine (six weeks)
- Internal Medicine (six weeks)
- Pediatrics (six weeks)
- Prenatal Care and Gynecology (six weeks)

- General Surgery (six weeks)
- Selective (six weeks in one of the following three courses)
  - Orthopedics (six weeks)
  - Dermatology (six weeks)
  - Otorhinolaryngology (six weeks)
- Elective (six weeks)
- Elective (four weeks)
- Graduate Project (each semester)

Each required rotation has assigned readings and learning objectives. At the end of each required rotation, a written, comprehensive subject examination is administered and must be passed. The six-week elective rotation requires the submission of an acceptable paper on a topic related to the rotation. A comprehensive, written, summative examination is administered as a component of the four-week elective and must be passed. During rotations, students will be supervised by licensed practitioners and will actively participate in patient assessments, perform common laboratory procedures, interpret common diagnostic examinations, and help manage common medical problems. The work hours during clinical rotations are set by the preceptor and can include evening and weekend hours. Students are required to work a minimum of 40 hours per week, however, many rotation sites require a greater student participation.

Upon completion of the course of study, students will have earned a Master of Medical Science (M.M.S.) in Physician Assistant degree. Graduates will be eligible to take the Physician Assistant National Certification Examination (PANCE) administered by the National Commission on Certification of Physician Assistants.

The role of the physician assistant requires a high level of expertise and responsibility. The applicant must possess the ability and desire to complete a rigorous academic and clinical program and make a commitment to continued learning and becoming a professional.

## Curriculum Outline for the Master of Medical Science (M.M.S.) in Physician Assistant Program—Orlando

Start Date ..... June

Length..... 27 months

Degree ..... Master of Medical Science (M.M.S.) in Physician Assistant

Didactic..... 15 months

Clinical ..... 12 months

### First Semester—Summer I

#### (June–August)

	Lecture	Lab	Credit Hours
PAO 5000 Anatomy	48	38	5
PAO 5001 Pharmacodynamics	16	0	1
PAO 5002 Introduction to the PA Profession	16	0	1
PAO 5100 Physiology	48	0	3
PAO 5300 Physical Diagnosis I	22	44	3
PAO 5400 History Taking and Communication Skills	20	0	1
PAO 5406 Cultural Issues in Health Care	30	0	2
PAO 5605 Clinical Laboratory Medicine	38	0	3
<b>Total Hours:</b>	<b>238</b>	<b>82</b>	<b>19</b>

### Second Semester—Fall

#### (September–December)

	Lecture	Lab	Credit Hours
PAO 5003 Fundamentals of Medical Imaging	22	0	1
PAO 5006 Electrocardiography	16	0	1
PAO 5104 Clinical Pathophysiology	46	0	3
PAO 5200 Microbiology	42	0	3
PAO 5310 Physical Diagnosis II	20	36	2
PAO 5404 Legal and Ethical Issues in Health Care	42	0	3
PAO 5410 Pharmacology I	32	0	2
PAO 5421 Epidemiology/Biostatistics in Health Care	40	0	3
PAO 5500 Clinical Medicine and Surgery I	110	0	7
<b>Total Hours</b>	<b>370</b>	<b>36</b>	<b>25</b>

### Third Semester—Winter (January–May)

	Lecture	Lab	Credit Hours
PAO 5422 Research Methodology	44	0	3
PAO 5320 Physical Diagnosis III	34	42	5
PAO 5420 Pharmacology II	64	0	4
PAO 5510 Clinical Medicine and Surgery II	168	0	8
PAO 5520 Clinical Medicine and Surgery III	118	0	7
PAO 5540 Clinical Psychiatry	45	0	3
<b>Total Hours:</b>	<b>473</b>	<b>42</b>	<b>30</b>

### Fourth Semester—Summer II Advanced Didactic (June–July)

	Lecture	Lab	Credit Hours
PAO 5005 Genetics	16	0	1
PAO 5008 Health Promotion and Disease Prevention	20	0	1
PAO 5009 PA and Health Care Dynamics	30	0	2
PAO 5407 Clinical Pharmacology	18	0	1
PAO 5408 Complementary Medicine and Nutrition	28	0	2
PAO 5412 Publication Skills and Medical Research	30	60	4
PAO 5460 Life Support Procedures and Skills	24	24	3
PAO 5560 Clinical Procedures and Surgical Skills	40	24	3
<b>Total Hours:</b>	<b>206</b>	<b>108</b>	<b>17</b>

### Clinical Curriculum—Second Year (August–August)

	Weeks	Contact*	Credit Hours
PAO 6401 Elective I	4	160	4
PAO 6402 Elective II	6	240	6
PAO 6498 Graduate Project I	0	0	1
PAO 6499 Graduate Project II	0	0	1
PAO 6500 Graduate Project III	0	0	1
PAO 6310 Emergency Medicine	6	300	6
PAO 6320 Family Medicine	6	255	6
PAO 6330 Internal Medicine	6	270	6



PAO 6340	Pediatrics	6	270	6
PAO 6350	Prenatal Care and Gynecology	6	270	6
PAO 6360	General Surgery	6	300	6
PAO 6406	Selective (choose one of three**)	6	270	6
	Orthopedics			
	Dermatology			
	Otorhinolaryngology			
<b>Total Weeks/Hours/Credits (second year)</b>		<b>52</b>	<b>2,335</b>	<b>55</b>

\*factors in time for inpatient rounds, grand rounds, extra reading assignments, and projects

\*\*one of three selectives required, may use other selectives as electives

Curriculum is subject to change as directed by the department.

## **Physician Assistant—Orlando Course Descriptions**

Note: Listed at the end of each entry are lecture clock hours, laboratory clock hours, and semester hours.

### **PAO 5000—Anatomy**

Gross structures of the human body. Integrates topographic and radiographic anatomy to stress the application and importance of clinical anatomy. Develops the knowledge of the human anatomy necessary for the practice of the profession. (48-38-5)

### **PAO 5001—Pharmacodynamics**

This course will provide the student with a thorough understanding of the basic pharmacodynamic and pharmacokinetic principles. Emphasis will be on basic terminology, receptor theory, pathways, absorption, distribution, elimination, and pharmacological effects. (16-0-1)

### **PAO 5002—Introduction to the Physician Assistant Profession**

Introduces key concepts regarding the PA profession including an overview of the profession, the history of the development of the profession, the current status of the profession, physician assistant education, and current and future roles of the physician assistant. (16-0-1)

### **PAO 5003—Fundamentals of Medical Imaging**

Introduces key concepts for the understanding of normal medical diagnostic imaging. Emphasis is placed on images of normal human body structures and organs. (22-0-1)

### **PAO 5005—Genetics**

This course will introduce principles of medical genetics applied to the clinical practice of medicine within the scope of practice of Physician Assistants. Discussions will include the role of genetics in medicine, the basic structure and behavior of genes, genetic basics of human disease, the human genome, and application of genetic science to cancer, genetics in clinical medicine for diagnosis, treatment, and ethical considerations. (16-0-1)

### **PAO 5006—Electrocardiography**

Provides the basics for learning to interpret normal ECG tracings and applying those principles to interpret the ECG tracings of common cardiac disease. (16-0-1)

### **PAO 5008—Health Promotion and Disease Prevention**

Focus on wellness through preventive interventions and services. Emphasizes responsibility for one's own health, the community's efforts to protect against disease, and environmental hazards. Epidemiology, risk factors, screening tests, and community resources are identified with each health issue presented. (20-0-1)

### **PAO 5009—PA and Health Care Dynamics**

This course focuses on the current status and issues regarding the physician assistant profession within the context of the U.S. medical system and today's health care workforce. The course discusses the structures and administrative principles in health care organizations; the role of the practicing PA in unique environments, with an emphasis on rural and underserved medicine; reimbursement for services

rendered; quality assurance; federal health care programs; and other issues involving patient care. (30-0-2)

#### **PAO 5100—Physiology**

Clinically relevant physiologic principles of the major organ systems covered in Clinical Anatomy. Normal physiologic processes of all major organ systems are emphasized in this course. (48-0-3)

#### **PAO 5104—Clinical Pathophysiology**

This course introduces the student to pathophysiologic concepts that form the biologic basis of disease. It builds on the knowledge gained in human anatomy and physiology courses. However, physiologic concepts will be reviewed and emphasized in order for the student to fully appreciate the progression from the normal physiologic state to the acute and chronic diseased state with its resultant clinical signs and symptoms. (46-0-3)

#### **PAO 5200—Microbiology**

Relationship of microbes to human disease and the host-immune response. Characteristics and properties of clinically significant bacteria, viruses, fungi, and selected parasites as well as the prevention, control, and diagnostic laboratory tests of their associated specific infectious diseases. (42-0-3)

#### **PAO 5300—Physical Diagnosis I**

Principles and skills required to perform a complete medical history and physical examination. Emphasizes normal physical findings. (22-44-3)

#### **PAO 5310—Physical Diagnosis II**

Students will build upon skills learned in Physical Diagnosis I. The student

will have supervised practice of skills using simulated patient encounters. Integrating previously learned interviewing skills with principles from the clinical sciences, students elicit a comprehensive medical history, perform a complete physical examination, and formulate an initial diagnostic impression and diagnostic plan. Students are expected to continue to progress in recording information in written form and presenting the information orally to colleagues. (20-36-2)

#### **PAO 5320—Physical Diagnosis III**

Students will continue to systematically learn abnormalities in the physical examination and specialty examination techniques. The student will have supervised practice of skills using simulated patient encounters. Integrating previously learned interviewing skills with principles from the clinical sciences, students elicit a comprehensive medical history, perform a complete physical examination, and formulate an initial diagnostic impression and diagnostic plan. Students are expected to continue to progress in recording information in written form and presenting the information orally to colleagues. (34-42-5)

#### **PAO 5400—History Taking and Communications Skills**

This course prepares the student to perform a complete medical history, identifying appropriate communication skills needed for interaction with patients, families, and colleagues. (20-0-1)

#### **PAO 5404—Legal and Ethical Issues in Health Care**

Introduces the role that ethics and the law play in the practice of health care.

Principles and concepts in determining correct actions, both legally and ethically, are reviewed. Topics include solving an ethical dilemma, ethical implications involved in genetic engineering, the impaired clinician, conflicts between providers, conflicts between clinician and patient, euthanasia, risk management, confidentiality, informed consent, patients' directives, and documentation. (42-0-3)

#### **PAO 5406—Cultural Issues in Health Care**

Introduction to the skills and insights necessary in promoting health and dealing with illness in diverse populations. Issues discussed include the need for effective communication with an understanding of societal and cultural factors and how they impact on health care efforts and use of the health care system. (30-0-2)

#### **PAO 5407—Clinical Pharmacology**

This course will advance the clinical skills of the student as they relate to the pharmacologic treatment of the patient. Specific topics will include the indicated medications in the treatment of common illnesses; their adverse effects; and drug interactions, dosage, and monitoring. (18-0-1)

#### **PAO 5408—Complementary Medicine and Nutrition**

Survey of human nutrition in health care and the principles for maintaining good health through nutrition. Addresses health hazards associated with dietary deficiencies, obesity, fad dieting, food contamination, diet management of selected diseases, and the functional roles of vitamins and minerals. Additionally, this course will address introductory concepts, procedures,

education, and licensing in alternative and complementary medicine. (28-0-2)

#### **PAO 5410—Pharmacology I**

Understanding the basis for pharmacologic intervention in patient care is the foundation for treatment of disease. This course is an in-depth study of the pharmacodynamics of drugs used in the autonomic nervous, renal, and cardiovascular systems. Mechanisms of drug action, clinical uses, side effects, contraindications and drug interactions, and pharmacokinetic considerations for special patient populations will also be discussed. (32-0-2)

#### **PAO 5412—Publication Skills and Medical Research**

The essential components of a well-written medical or research paper are presented. The process by which these papers are transformed into publications is described, including the concepts of article preparation and revision and the steps required for submission to a physician assistant medical journal. This course is designed to adequately prepare students to complete the Graduate Project (PAO 6500), which results in a written medical or research paper. (30-60-4)

#### **PAO 5420—Pharmacology II**

Mechanisms of action, clinical uses, side effects, contraindications, drug interactions, and pharmacokinetics of drugs used in the treatment of diseases of the major organ systems. Treatment of HIV, geriatric and neonatal pharmacology, the pharmacological principles of nutrition, over-the-counter agents, toxicology, drugs of abuse, prescription writing, and evaluation of drug literature. (64-0-4)

### **PAO 5421—Epidemiology and Biostatistics in Health Care**

Overview of the methods in epidemiology and biostatistics commonly used in clinical research and practice. Addresses the evaluation of diagnostic procedures and the methodology for clinical description and trials and provides basic skills on critical reading of medical literature, based on these concepts. (40-0-3)

### **PAO 5422—Research Methodology**

Emphasis and overview of the importance of data collection, research methods, and application of scientific thought to research findings. Designed to enable participants to develop skill in reading and critically evaluating medical literature and research. The advantages and disadvantages of quantitative and qualitative research methods are compared and contrasted. (44-0-3)

### **PAO 5460—Life Support Procedures and Skills**

Introduction to the principles of advanced life support used in medical and surgical emergencies. Includes a review of the most common emergency situations encountered and provides hands-on practical training that will assist the student in developing the skills required to stabilize patients with life-threatening conditions. Includes certification in basic (BLS) and Advanced Cardiac Life Support (ACLS), as well as Pediatric Advanced Life Support (PALS). (24-24-3)

### **PAO 5500—Clinical Medicine and Surgery I**

Etiology, clinical manifestations, appropriate diagnostic evaluation, and the management of disease entities in ophthalmology, otorhinolaryngology,

dermatology, cardiology, pulmonology, and hematology/oncology. (110-0-7)

### **PAO 5510—Clinical Medicine and Surgery II**

Etiology, clinical manifestations, appropriate diagnostic evaluation, and the management of common disease entities of major organ systems and primary care aspects of disease evaluation and treatment in gastroenterology, rheumatology, endocrinology, orthopedics, OB/GYN, geriatrics, and neurology. (168-0-8)

### **PAO 5520—Clinical Medicine and Surgery III**

Etiology, clinical manifestations, appropriate diagnostic evaluation, and the management of disease entities of major organ systems. Lectures in primary care aspects of disease evaluation and treatment in pediatrics, nephrology, emergency medicine, and general surgery. (118-0-7)

### **PAO 5540—Clinical Psychiatry**

Common psychosocial problems and disorders encountered by health care professionals. Emphasizes the diagnosis and understanding of development of these behaviors, including the patient-clinician relationship, varieties of psychotherapy, communication skills, and appropriate intervention and treatment regimens. (45-0-3)

### **PAO 5560—Clinical Procedures and Surgical Skills**

Lectures and laboratory practicum introducing the clinical procedures and surgical skills used in the clinical setting: aseptic technique, operating room protocol, injections, knot tying and suturing techniques, venipuncture, arterial puncture, intravenous catheterization, nasogastric intubation, and

urinary catheterization. This course is a prerequisite for clinical rotations. (40-24-3)

### **PAO 5605—Clinical Laboratory Medicine**

Clinical laboratory use, rationale for selecting common diagnostic tests, interpretation of results, correlation between results and disease processes, and tests not available in the primary care setting that are necessary for diagnosis, treatment, and patient care. Students will learn how to appropriately order and accurately interpret laboratory tests. These skills will help them diagnose common diseases related to major organ systems. (38-0-3)

### **PAO 6310—Emergency Medicine**

Required six-week rotation in hospital emergency department teaches students to recognize, assess, and treat acute and life-threatening clinical problems. Emphasizes common primary care emergencies. (300-0-6)

### **PAO 6320—Family Medicine**

Required six-week rotation in outpatient settings. Comprehensive primary care of the individual patient within the family unit. Emphasizes the primary care needs of patients in rural or inner-city communities. (255-0-6)

### **PAO 6330—Internal Medicine**

Required six-week rotation in outpatient and/or inpatient settings, Diagnosis, treatment, and management of acute and chronic medical problems seen in the internal medicine practice. Emphasizes the adult, nonsurgical patient. (270-0-6)

### **PAO 6340—Pediatrics**

Required six-week rotation in outpa-

tient and/or inpatient settings teaches normal and abnormal growth and development, disease prevention, and basic health care in neonates through adolescence. Emphasizes primary care of the pediatric patient. (270-0-6)

### **PAO 6350—Prenatal Care and Gynecology**

Required six-week rotation in outpatient and/or inpatient settings teaches prenatal care, treatment, gynecological diagnosis, and management. Emphasizes primary care of the female patient including obstetrics. (270-0-6)

### **PAO 6360—General Surgery**

Required six-week rotation in outpatient and inpatient settings. Students learn to diagnose, treat, and manage the surgical patient. Emphasizes surgical entities commonly encountered in the primary care setting. (300-0-6)

### **PAO 6401—Clinical Elective I**

Elective, full-time, clinical rotation that provides an opportunity to investigate a clinical, medical, or surgical subspecialty area or gain more experience in primary care. Each four-week elective may be taken sequentially at the same site or separately. (160-0-4)

### **PAO 6402—Clinical Elective II**

Elective, full-time, clinical rotation that provides an opportunity to investigate a clinical, medical, or surgical subspecialty area or gain more experience in primary care. Each six-week elective may be taken sequentially at the same site, or separately. (240-0-6)

### **PAO 6406—Selective**

Choose one the three following medical areas to take a six-week rotation in. (270-0-6)

## Orthopedics

The six-week clinical practicum is intentionally flexible to meet the variety of patients that are likely to present during the rotation. Lecture hours may occur during other than the scheduled period of the rotation in order to accommodate all PA students and instructors at the clinical site. Preceptorship is provided by an orthopedist credentialed at the clinical site. Primary emphasis will be on developing skills required to recognize and manage common problems seen in this specialty. Procedures and disease processes listed, for which the student has not had the opportunity for direct involvement, may be addressed by the preceptor through discussion, lecture, informal seminars, and reading assignments. Formal grading is required in this rotation.

## Dermatology

This is a six-week rotation. The clinical practicum is intentionally flexible to meet the variety of patients that are likely to present during the rotation. Preceptorship is provided by a dermatologist credentialed at the clinical site. Primary emphasis will be on developing skills required to recognize and manage common problems seen in this specialty. Procedures and disease processes listed, for which the student has not had the opportunity for direct involvement, may be addressed by the preceptor through discussion, lecture, informal seminars, and reading assignments.

## Otorhinolaryngology

This six-week clinical practicum is intentionally flexible to meet the variety of patients that are likely to present during the rotation. Lecture hours may occur during other than

the scheduled period of the rotation in order to accommodate all PA students and instructors at the clinical site. Preceptorship is provided by an otolaryngologist credentialed at the clinical site. Primary emphasis will be on developing skills required to recognize and manage common problems seen in this specialty. Procedures and disease processes listed, for which the student has not had the opportunity for direct involvement, may be addressed by the preceptor through discussion, lecture, informal seminars, and reading assignments. Formal grading is required in this rotation.

### **PAO 6498—Graduate Project I: Creation, Plan, and Preliminary Work**

With the guidance of a faculty adviser, students will use the skills acquired in Publication Skills and Medical Research (PAO 5412) to create a graduate project. The project features topics in clinical or administrative medicine and consists of a comprehensive literature review and evaluation and completion of a publishable review paper. The project allows the student to demonstrate his or her ability to research and compile information and to present that information in a clear, written form. **Fall semester (0-0-1)**

### **PAO 6499—Graduate Project II: Draft of Components**

For additional information, please refer to course description for PAO 6498. **Winter semester (0-0-1)**

### **PAO 6500—Graduate Project III: Final Paper and Poster Presentation**

For additional information, please refer to course description for PAO 6498. **Final summer semester (0-0-1)**

## Physician Assistant Department—Jacksonville

Physician assistants (PAs) serve as essential components of a medical system that continues to struggle to provide quality, affordable health care for all Americans. Their roles in the system will continue to grow as changes in health care indicate. Today, more than 88,000 individuals are eligible to practice as PAs under physician supervision. PAs provide care that would otherwise be provided by physicians. PAs take medical histories, perform physical examinations, order and interpret tests, diagnose and treat illnesses, perform medical/surgical procedures, assist in surgery, and can write prescriptions in all states. PAs work in most medical specialties and in all types of communities. Many PAs practice family and internal medicine, and more than one-third are in towns with fewer than 50,000 residents. The PA profession is one of the fastest growing health care professions. The United States Bureau of Labor Statistics (BLS) projects that employment of PAs is expected to grow 39 percent from 2008 to 2018.

It is the obligation of each physician/PA team to ensure that the PA's scope of practice is identified; that delegation of medical tasks is appropriate to the PA's level of competence; that the relationship with, and access to, the supervisory physician is defined; and that a process of performance evaluation is established. Adequate responsible supervision of the PA contributes to both high-quality patient care and professional growth.

The Physician Assistant Department offers an innovative program that lasts

27 months. Upon successful completion of study, students will be awarded the Master of Medical Science Degree in Physician Assistant. The curriculum includes rigorous instruction in basic science subjects, followed by clinical medicine, physical diagnosis, clinical laboratory medicine, clinical pathophysiology, clinical procedures and surgical skills, electrocardiography, pharmacology, radiology, and others. Students also take courses that include health care law and ethics, epidemiology and biostatistics, research methodology, and cultural issues in health care.

During the clinical year of study, the student participates in clinical rotations. These rotations include family medicine, internal medicine, pediatrics, gynecology and prenatal care, emergency medicine, and surgery, all complemented by three elective rotations. NSU graduates are prepared to work in many clinical areas, both in primary care and specialty medicine.

### Accreditation

The NSU Physician Assistant Program is accredited by the Accreditation Review Commission for Physician Assistants, Inc., (ARC-PA). The NSU Physician Assistant Program—Jacksonville received Provisional Accreditation in March 2009. The program is a member of the Physician Assistant Education Association (PAEA).

Nova Southeastern University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097, Telephone number: 404-679-4501) to award associate's, bachelor's, master's, educational specialist, and doctoral degrees.



## Mission Statement

To provide a primary care training program designed for, and dedicated to, producing competent physician assistants who will provide quality health care in rural, urban, underserved, and culturally diverse communities; to increase the accessibility of quality health care in the primary care setting; to prepare students for lifelong learning and leadership roles; and to promote the physician assistant profession.

## Admissions Requirements

Prospective students are selected by the Committee on Admissions (COA), which considers the overall qualities of the applicant. Areas of consideration include interpersonal skills, personal motivation, knowledge and understanding of the PA profession, academic performance and level of achievement, life experiences, quality and length of prior health care experience, and recommendations/evaluations. Personal interviews are offered to the most qualified applicants to assess interpersonal and communication skills, maturity, integrity, altruistic attitude, and commitment to a PA career.

1. Applicants must have a minimum cumulative and a minimum science GPA of 2.9 on a 4.0 grading scale in order for an application to be considered. Successful applicants in the past have, typically, had both cumulative and science GPAs of 3.2 or higher, GRE scores (verbal, quantitative, and analytical) in the 40th percentile or higher in each of the three categories, and letters of recommendation from individuals with whom the applicant has had a professional working relationship in the health care field.

2. Prior to matriculation, applicants must have received a baccalaureate degree from a regionally accredited college or university. The program requires the student to earn a grade of C (2.0) or better in all courses.

3. The college requires the students to earn a grade of C (2.0) or better in each of the following required courses:

- college math (3 semester hours)
- English (6 semester hours, including 3 of English composition)
- humanities/arts (3 semester hours)
- social sciences (9 semester hours)
- general biology (or zoology), including laboratory (4 semester hours)
- microbiology, including laboratory (4 semester hours)
- general chemistry I and II, including laboratory (8 semester hours)
- human anatomy (3 semester hours)
- human physiology (3 semester hours)
- biochemistry or organic chemistry (3 semester hours)
- electives (44 semester hours)

Applicants are encouraged to complete their elective coursework in the areas of behavioral, physical, and social sciences or in the humanities.

The following courses are recommended:

- biochemistry or organic chemistry laboratory (1 semester hour)
- anatomy laboratory (1 semester hour)
- physiology laboratory (1 semester hour)
- introduction to statistics (1 semester hour)
- genetics (3 semester hours)
- medical terminology (1 semester hour)

4. Graduates of foreign institutions where English is not the primary language of instruction must present transcripts showing at least 18 semester hours (or equivalent quarter hours) of study from a regionally accredited college or university in the United States. Of these 18 semester hours,

- 3 semester hours must be in English composition (courses do not include ESOL)
- 3 semester hours must be in English literature (courses do not include ESOL)
- 3 semester hours must be in public speaking (courses do not include ESOL)

The remaining 9 semester hours can be any courses of the applicant's choosing.

5. Prior health care experience is highly recommended and is considered for admission. Those applicants who have prior health care experience must submit verifiable information about their experience.

6. All applicants are required to submit official scores from the Graduate Record Examination (GRE) general test to the Office of Admissions. The test must have been taken within the past five years and must be taken early enough for official scores to be received in the admissions office by the supplemental application due date of February 15. Applications will not be considered complete without GRE scores. Testing information for the GRE may be obtained from [www.gre.org](http://www.gre.org) or by telephone at (609) 921-9000.

## Computer Requirements

Throughout the curriculum, students are required to access various instruc-

tional materials and information from the Internet. All students are required to have a laptop. The minimum specifications are

- Intel or AMD dual core processor
- 1012 MB of RAM minimum
- video capable of 800x600 screen display or better
- DVD/CD Rom capability
- CD writer capable, DVD writer optional
- full duplex sound card with speakers
- ethernet capable
- 56K or higher modem
- an Internet service provider (ISP) for your home/apartment
- Windows XP or Vista
- Microsoft Office 2003 or 2007 with PowerPoint, Word, and Excel as a minimum
- Internet Explorer or Netscape
- Wireless-G capability at a minimum
- printer
- surge protector

## Application Procedures

1. Apply to CASPA

The physician assistant program participates in the Centralized Application Service for Physician Assistants (CASPA) for the receipt and processing of all applications. CASPA takes no part in the selection of students. CASPA applications are submitted online at [www.caspaonline.org](http://www.caspaonline.org) or by writing to

CASPA  
P.O. Box 9108  
Watertown, MA 02471

The CASPA application deadline is January 15 in order to be considered for admission in June.

#### 2. Send transcripts and letters of recommendation/evaluation to CASPA

All official college transcripts from all undergraduate, graduate, and professional institutions attended must be sent directly from the institutions.

Three letters of recommendation/evaluation must be sent to CASPA. One letter of recommendation/evaluation must be sent from an individual (other than a relative or friend) such as an academic adviser, professor, coworker, or supervisor. Two letters of recommendation/evaluation must be from health care professionals, one of which must be from a physician or PA with whom you have worked, shadowed, or volunteered.

#### 3. Send GRE scores to NSU PA Office of Admissions

Official Graduate Record Exam (GRE) scores must be submitted directly to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
Physician Assistant Department Office  
of Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida 33329-9905

The NSU code number is 5522. Your GRE test scores must be less than five years old and must be taken early enough for official scores to be received by the supplemental application deadline of February 15.

#### 4. Complete Supplemental Application

Once the CASPA application has been received by Nova Southeastern University, a supplemental application will be made available online. Your complete supplemental application must be received no later than February 15 in order to be considered for admission for the June entering class. Once we receive your GRE scores, supplemental application, and \$50 fee, your file will be reviewed. The applicant will not be considered for a possible interview until all of these requirements have been received by the EPS.

#### Personal Interviews

Once your application is complete, the Committee on Admissions will decide whether or not your application is strong enough to warrant an invitation for a personal interview. Interviews for the Jacksonville PA program are conducted at the Student Educational Center in Jacksonville, Florida, and are by invitation only. Interviews will be held from mid-September through mid-May. An invitation to interview is not a guarantee of admission. Notice of acceptance or action by the COA will be on a “rolling” or periodic schedule; therefore, early completion of the application is in the best interest of the applicant.

#### Current College Coursework

All prerequisite coursework must be completed by the end of May in order to be considered for the June entering class. If, at the time of application, coursework is in progress or anticipated, please identify these courses on the supplemental application.

#### Transcripts

All applicants who are accepted must submit official transcripts from all

schools attended to the NSU EPS Physician Assistant Admissions Office prior to matriculation. It is the responsibility of the applicant to ensure that arrangements are made for these transcripts to be sent.

### **Undergraduate/Physician Assistant Dual Admission Program—Jacksonville**

Nova Southeastern University's College of Allied Health and Nursing has established an articulation agreement with Florida State College of Jacksonville for a select number of highly motivated, qualified students interested in pursuing professional studies in the Physician Assistant Program. Candidates must maintain a 3.0 grade point average during the undergraduate years and achieve acceptable scores on the Graduate Record Examination (GRE).

The students will apply for admission to the PA program via CASPA. The CASPA application, supplemental application, and GRE scores must be received by NSU's Office of Admissions by the posted deadlines. Personal interviews are offered to the most qualified applicants to assess interpersonal and communications skills, maturity, altruistic attitude, and commitment to the PA profession. There is no guarantee of automatic admission to the PA program.

For more information and requirements, contact

Florida State College of Jacksonville  
501 West State Street, Office 446F  
Jacksonville, Florida 32202  
(904) 632-5066

### **Tuition and Fees**

- Tuition for 2010–2011 (subject to change by the board of trustees without notice) is \$24,785. A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually
- Acceptance fee is \$500. This fee is required to reserve the accepted applicant's place in the entering first-year class. This advance payment will be credited to the tuition payment due on registration day, but is not refundable in the event of a withdrawal. It is payable within two weeks of an applicant's acceptance.
- Deposit is \$250. This is due February 15, under the same terms as the Acceptance Fee.
- Preregistration fee is \$250. This is due April 15, under the same terms as the Acceptance Fee.

The first semester's tuition and fees, less the \$1,000 previously paid, are due on or before registration day. Tuition for each subsequent semester is due on or before the appropriate registration day. Students will not be admitted until their financial obligations have been met.

Applicants should have specific plans for financing 27 months of professional education. This should include tuition, living expenses, books, equipment, and miscellaneous expenses. Each student is required to carry adequate health insurance. Students may avail themselves of the insurance plan obtainable through the university.

Due to the demands of the PA curriculum, the program discourages any outside employment.

## Requirements for Graduation

In order to be eligible to graduate from the Physician Assistant Program, students shall

- successfully complete all academic and clinical courses and degree requirements
- have satisfactorily met all financial and library obligations
- attend, in person, the rehearsal and commencement program, at which time the degree is conferred

## Academic Dismissal in the Physician Assistant Program

See the suspension/dismissal section of the student handbooks.

## Readmission Policy in the Physician Assistant Program

In selected cases, and only with the approval of the department chair and college dean, a student may be allowed to be noncompetitively matriculated with the next first-year class. It is emphasized that this only refers to those few students with special academic or personal issues.

## Course of Study

The Physician Assistant Program curriculum is completed following a baccalaureate degree from a regionally accredited college or university in the United States. The comprehensive curriculum, completed in a consecutive manner, is oriented to primary care and prepares the student to practice in a wide variety of clinical settings. The first 14 months of study consist of basic sciences and clinically related didactic courses. All courses are required and must be successfully completed before advancing to the

clinical year. During this time frame, students are generally in class from Monday through Friday, 8:00 a.m. to 5:00 p.m., although there are occasional evening and/or weekend hours. Because of its highly integrated and compact curriculum, the PA department requires matriculants to complete the entire curriculum at this campus. No advanced placement, transfer of credit, or credit for experiential learning will be granted.

The clinical year is devoted to 13 months of clinical training with required clinical rotations in family medicine, emergency medicine, pediatrics, prenatal care/gynecology, surgery, and internal medicine. Students must also complete three elective rotations, for a total of nine clinical rotations. The required rotations and two of the elective rotations are six weeks in length. The remaining elective rotation is four weeks in length.

Each required rotation has assigned readings and learning objectives. At the end of each required rotation, a written, comprehensive subject examination is administered and must be passed. During rotations, students will be supervised by licensed practitioners and will actively participate in patient assessments, perform common laboratory procedures, interpret common diagnostic examinations, and help manage common medical problems. The work hours during clinical rotations are set by the preceptor and can include evening and weekend hours. Students are required to work a minimum of 40 hours per week, however, many rotation sites require students to work substantially more hours per week.

Upon completion of the course of study, students will be awarded the

Master of Medical Science degree in Physician Assistant. Graduates will be eligible to take the Physician Assistant National Certification Examination (PANCE) administered by the National Commission on Certification of Physician Assistants.

The role of the physician assistant requires a high-level of expertise and responsibility. The applicant must possess the ability and desire to complete a rigorous academic and clinical program and make a commitment to continued learning.

## Curriculum Outline for the Master of Medical Science (M.M.S) in Physician Assistant Program—Jacksonville

Start Date:	June 2011
Length:	27 months
Degree:	Master of Medical Science (M.M.S) in Physician Assistant
Didactic:	14 months
Clinical:	13 months

### First Semester—Summer I (June–August)

Course #	Course Title	Lecture	Lab	Credit Hours
PAJ 5506	Cultural Issues in Health Care	15	0	1
PAJ 5000	Anatomy	59	38	5
PAJ 5001	Pharmacodynamics	16	0	1
PAJ 5002	Introduction to the PA Profession	16	0	1
PAJ 5003	Fundamentals of Medical Imaging	18	0	1
PAJ 5100	Physiology	54	0	3
PAJ 5300	Physical Diagnosis I	42	20	3
PAJ 5400	History Taking and Communication Skills	18	0	1
PAJ 5004	Medical Terminology	0	25	1
<b>Total Hours</b>		<b>238</b>	<b>83</b>	<b>17</b>

### Second Semester—Fall (September–December)

Course #	Course Title	Lecture	Lab	Credit Hours
PAJ 5504	Legal and Ethical Issues in Health Care	30	0	2
PAJ 5006	Electrocardiography	18	4	1
PAJ 5101	Clinical Pathophysiology	18	0	1
PAJ 5200	Microbiology	45	0	3
PAJ 5310	Physical Diagnosis II	20	36	3
PAJ 5410	Pharmacology I	38	0	2
PAJ 5500	Clinical Medicine and Surgery I	112	0	7
PAJ 5600	Clinical Laboratory Medicine I	20	0	1
<b>Total Hours</b>		<b>301</b>	<b>40</b>	<b>20</b>

### Third Semester—Winter (January–May)

Course #	Course Title	Lecture	Lab	Credit Hours
PAJ 5102	Clinical Pathophysiology II	18	0	1
PAJ 5103	Clinical Pathophysiology III	16	0	1
PAJ 5320	Physical Diagnosis III	32	40	3
PAJ 5420	Pharmacology II	72	0	4
PAJ 5510	Clinical Medicine and Surgery II	120	0	8
PAJ 5520	Clinical Medicine and Surgery III	112	0	7
PAJ 5540	Clinical Psychiatry	45	0	3
PAJ 5610	Clinical Laboratory Medicine II	32	0	2
<b>Total Hours</b>		<b>447</b>	<b>40</b>	<b>29</b>

### Fourth Semester—Summer II Advanced Didactic (June–July)

Course #	Course Title	Lecture	Lab	Credit Hours
PAJ 5005	Clinical Genetics	18	0	1
PAJ 5507	Clinical Pharmacology	16	0	1
PAJ 5508	Complementary Medicine and Nutrition	30	0	2
PAJ 5512	Epidemiology/Interpretation of the Medical Literature	45	0	3
PAJ 5560	Life Support Procedures and Skills	24	40	3
PAJ 5008	Health Promotion and Disease Prevention	22	0	1
PAJ 5009	PA and Health Care Dynamics	30	0	2
PAJ 5570	Clinical Procedures and Surgical Skills	44	24	3
<b>Total Hours</b>		<b>229</b>	<b>64</b>	<b>16</b>

### Clinical Curriculum: Second Year (August–August)

Course #	Course Title	Weeks	Contact Hours	Credit Hours
PAJ 6310	Emergency Medicine	6	240	6
PAJ 6320	Family Medicine	6	240	6
PAJ 6330	Internal Medicine	6	240	6
PAJ 6340	Pediatrics	6	240	6
PAJ 6350	Prenatal Care and Gynecology	6	240	6
PAJ 6360	General Surgery	6	300	6
PAJ 6370	Clinical Elective I	6	240	6
PAJ 6380	Clinical Elective II	6	240	6
PAJ 6390	Clinical Elective III	4	160	4
PAJ 6600	Graduate Project	0	0	3
<b>Total Hours</b>		<b>52</b>	<b>2,140</b>	<b>55</b>

Curriculum is subject to change as directed by the department.



## **Physician Assistant— Jacksonville Course Descriptions**

Note: Listed at the end of each entry are lecture clock hours, laboratory clock hours, and semester hours.

### **PAJ 5000—Anatomy**

This course covers the gross structures of the human body. It integrates topographic and radiographic anatomy to stress the application and importance of clinical anatomy. Student will develop the knowledge of human anatomy necessary for the practice of the profession. (59-38-5)

### **PAJ 5001—Pharmacodynamics**

This course will provide the student with a thorough understanding of the basic pharmacodynamic and pharmacokinetic principles. Emphasis will be on basic terminology, receptor theory, pathways, absorption, distribution, elimination, and pharmacological effects. **Prerequisite for PAJ 5410 (16-0-1)**

### **PAJ 5002—Introduction to the Physician Assistant Profession**

This course introduces key concepts regarding the PA profession, including an overview of the profession and its organizations, the history of the profession, the current status of the profession, physician assistant education, and current and future roles of the physician assistant. (16-0-1)

### **PAJ 5003— Fundamentals of Medical Imaging**

This course introduces key concepts for the understanding of normal medical diagnostic imaging. Emphasis is placed on images of normal human body structures and organs. (18-0-1)

### **PAJ 5004—Medical Terminology**

Use of medical language for appropriate and accurate communication in patient care. Students acquire a medical vocabulary, knowledge of medical terminology, and terminology reference material. (0-25-1)

### **PAJ 5005—Clinical Genetics**

This course provides an up-to-date, clinically relevant genetics course to prepare PA students for medical practice in the age of genomics. Areas of focus include molecular and developmental genetics; family history with pedigree risk analysis; inheritance patterns; genetic testing and screening; cancer genetics; complex diseases; pharmacogenetics; gene therapy; genetic ethical, legal, and social issues (ELSI) impact on primary care; and a current review of the Human Genome Project (HGP) and its affect on medicine. (18-0-1)

### **PAJ 5006—Electrocardiography**

This course provides the basics for learning to interpret 12-lead ECG tracings and applying those principles to interpret the ECG tracings of common cardiac disease. (18-4-1)

### **PAJ 5008—Health Promotion and Disease Prevention**

This course focuses on wellness through preventative interventions and services. Epidemiology, risk factors, health screening, and community resources for a variety of health issues are presented. Emphasis is placed on the community and health care practitioner's efforts to protect against disease and environmental hazards, as well as individual responsibility for one's health. (22-0-1)

### **PAJ 5009—PA and Health Care Dynamics**

This course focuses on the current status and issues regarding the physician assistant profession within the context of the United States medical system and today's health care workforce. The course discusses the structures and administrative principles in health care organizations, the role of the practicing PA in unique environments such as rural and underserved medicine, reimbursement for services rendered, quality assurance, federal health care programs, reduction of medical errors, and other issues involving patient care. (30-0-2)

### **PAJ 5100—Physiology**

Clinically relevant physiologic principles of the major organ systems covered in Clinical Anatomy. It will include the pathological changes that occur in human physiology in the disease process. **Prerequisite for PAJ 5101, PAJ 5500 and PAJ 5600 (54-0-3)**

### **PAJ 5101—Clinical Pathophysiology**

This course covers pathological changes seen in disease states. It uses a major body system/organ approach. The etiology and progression from the normal physiological state to the diseased state with resultant clinical signs and symptoms is taught. (18-0-1)

### **PAJ 5102—Clinical Pathophysiology II**

This course introduces the student to pathophysiological concepts that form the biologic basis of disease. It builds on the knowledge gained in human anatomy and physiology courses. Physiological concepts will be reviewed and emphasized in order

for the student to fully appreciate the progression from normal physiologic state to acute and chronic diseased state with its reluctant clinical signs and symptoms. This course builds on PAJ 5101. (18-0-1)

### **PAJ 5103—Clinical Pathophysiology III**

This course introduces the student to pathophysiological concepts that form the biologic basis of disease. It builds on the knowledge gained in human anatomy and physiology courses. Physiological concepts will be reviewed and emphasized in order for the student to fully appreciate the progression from normal physiologic state to acute and chronic diseased state with its reluctant clinical signs and symptoms. This course builds on the discussions of general biologic and pathologic processes given in PAJ 5101 and PAJ 5102. (16-0-1)

### **PAJ 5200—Microbiology**

The course emphasizes the relationship of microbes to human disease and the host-immune response. Characteristics and properties of clinically significant bacteria, viruses, fungi, and selected parasites, as well as the prevention, control, and diagnostic laboratory tests of their associated specific infectious diseases, will be discussed. **Prerequisite for PAJ 5310 (45-0-3)**

### **PAJ 5300—Physical Diagnosis I**

The Physical Diagnosis I course is an introduction to clinical medicine. Students will acquire the knowledge and skills essential to perform a complete, head-to-toe physical examination. Emphasis is placed on normal physical findings. A combination of lectures, discussions, case studies, and

performance skills labs will be used to present and practice the necessary concepts and skills. Lab sessions are used to optimize teaching of concepts. The student will be required to demonstrate competency-based learning during the performance of the required procedures and skills. (42-20-3)

### **PAJ 5310—Physical Diagnosis II**

This course will build upon the skills learned in Physical Diagnosis I and will cover the essential skills for performing both complete and focused medical interviews and physical examinations. Using the skills developed in Physical Diagnosis I, students learn to accurately integrate and record historical and physical findings in the correct written format. This course introduces the student to the concept of medical problem solving. Emphasis is on the correlation of historical information and physical findings to the process of formulating a differential diagnosis and treatment plan. Through case presentations and medical simulations, students will use knowledge acquired from previous and concurrent didactic courses to develop their problem solving skills. **Prerequisite for PAJ 5320 (20-36-3)**

### **PAJ 5320—Physical Diagnosis III**

This course is a continuation of PAJ 5310. Small-group and laboratory presentations will be used to refine the medical history concepts and physical examination skills acquired in Physical Diagnosis I and II. Instructional methods, including supervised clinical experience and patient simulations, will facilitate the students' integration of clinical information in order to diagnose disease and record historical and physical findings in written for-

mat. The course will expand on the skills essential for performing a thorough medical interview and physical examination and will enhance medical documentation skills. This course also continues to develop medical problem-solving skills. Emphasis is on correlation of historical information, physical findings, and pertinent laboratory results to formulate a diagnosis. Through case presentations and medical simulations, the student will also use knowledge acquired from previous and concurrent didactic courses to develop these skills. (32-40-3)

### **PAJ 5400—History**

#### **Taking and Communication Skills**

This course prepares the student to perform a complete medical history, identifying appropriate communication skills needed for interactions with patients, families, and colleagues. (18-0-1)

### **PAJ 5410—Pharmacology I**

Understanding the basis for pharmacologic intervention in patient care is the foundation for treatment of disease. This course begins an in-depth study of the pharmacodynamics of drugs used in the automatic nervous, renal, and cardiovascular systems. Mechanisms of drug action, clinical uses, side effects, contraindications and drug interactions, and pharmacokinetic considerations for special patient populations are discussed. **Prerequisite for PAJ 5507 (38-0-2)**

### **PAJ 5420—Pharmacology II**

Mechanisms of action, clinical uses, side effects, contraindications, drug interactions, and pharmacokinetics of drugs utilized in the treatment of diseases of the major organ systems will

be discussed. Treatment of HIV, geriatric and neonatal pharmacology, the pharmacological principles of nutrition, over-the-counter agents, toxicology, drugs of abuse, prescription writing, and evaluation of drug literature will also be gone over. **Prerequisite for PAJ 5507 (72-0-4)**

### **PAJ 5500—Clinical Medicine and Surgery I**

This course will encompass the etiology, clinical manifestations, appropriate diagnostic evaluation, and management of selected disease entities. (30-0-7)

### **PAJ 5504—Legal and Ethical Issues in Health Care**

This course introduces the role that ethics and the law play in the practice of health care. Principles and concepts in determining correct actions both legally and ethically are reviewed. Topics include solving an ethical dilemma, ethical implications involved in genetic engineering, the impaired clinician, conflicts between providers, conflicts between clinician and patient, euthanasia, risk management, confidentiality, informed consent, patients' directives, documentation, and domestic violence. (30-0-2)

### **PAJ 5506—Cultural Issues in Health Care**

This course offers an introduction to the skills and insights necessary in promoting health and dealing with illness in diverse populations. Issues discussed include the need for effective communication—with an understanding of societal and cultural factors and how they impact on health care efforts—and use of the health care system. (15-0-2)

### **PAJ 5507—Clinical Pharmacology**

At the completion of this course, students will be able to appropriately prescribe medications in various clinical settings. Preparation for appropriate prescribing and administration of medicines is accomplished by studying drug classifications, pharmacodynamic actions, and the rationale for therapeutic use of prescription and nonprescription medications. In addition, students will be able to describe the potential advantages and disadvantages of specific therapeutic regimens, universal indications and contraindications for usage, dosing schedules, and the relative cost of commonly prescribed medications. Students will administer a variety of medications using patient simulators and will observe the clinical response. Common errors involving prescription writing will be discussed and practical exercises will require students to accurately write prescriptions and treatment orders. (16-0-1)

### **PAJ 5508—Complementary Medicine and Nutrition**

This course is a survey of human nutrition in health care and the principles for maintaining good health through nutrition. It addresses health hazards associated with dietary deficiencies, obesity, fad dieting, food contamination, diet management of selected diseases, and functional roles of vitamins and minerals. Additionally, this course will address introductory concepts, procedures, education, and licensing in alternative and complementary medicine. (30-0-2)

### **PAJ 5510—Clinical Medicine and Surgery II**

This course is a continuation of Clinical Medicine and Surgery I. Common

disease entities of major organ systems and primary care aspects of disease evaluation and treatment are discussed. (120-0-8)

**PAJ 5512—Epidemiology/  
Interpretation and Evaluation of  
Medical Literature**

This course is designed to introduce the student to the process of interpretation and evaluation of the medical literature. The components of published medical papers and physician assistant-authored research papers are evaluated in this course. (45-0-3)

**PAJ 5520—Clinical Medicine and  
Surgery III**

This course is a continuation of Clinical Medicine and Surgery II. It will include disease entities of major organ systems. Lectures in primary care aspects of disease evaluation and treatment will be given. (112-0-7)

**PAJ 5540—Clinical Psychiatry**

Common psychosocial problems and disorders encountered by health care professionals are discussed. The course material emphasizes the diagnosis and understanding of the development of these behaviors, including the patient-clinician relationship, varieties of psychotherapy, communication skills, and appropriate intervention and treatment regimens. (45-0-3)

**PAJ 5560—Life Support Procedures  
and Skills**

Introduction to the principles of advanced life support used in medical and surgical emergencies. Includes a review of the most common emergency situations encountered and provides hands-on practical training that will assist the student in developing the skills required to stabilize patients

with life-threatening conditions. Includes certification in basic (BLS) and Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS). (24-40-3)

**PAJ 5570—Clinical Procedures and  
Surgical Skills**

Lectures and laboratory practicum introducing the clinical procedures and surgical skills used in the clinical setting: aseptic technique, operating room protocol, injections, knot tying, and suturing techniques, venipuncture, arterial puncture, intravenous catheterization, nasogastric intubation, and urinary catheterization. (44-24-3)

**PAJ 5600—Clinical  
Laboratory Medicine I**

Clinical laboratory utilization; rationale for selecting common diagnostic tests; interpretation of results; correlation between results and disease processes; and tests not available in the primary care setting that are necessary for diagnosis, treatment, and patient care are discussed. (20-0-1)

**PAJ 5610—Clinical  
Laboratory Medicine II**

This course is a continuation of Clinical Laboratory Medicine I. Students will learn how to appropriately order and accurately interpret laboratory tests. These skills will help them diagnose common diseases related to major organ systems. (32-0-2)

**PAJ 6310—Emergency Medicine**

Required six-week rotation in hospital emergency department teaches students to recognize, assess, and treat acute and life-threatening clinical problems. Emphasizes common primary-care emergencies. (240-0-6)

**PAJ 6320—Family Practice**

Required six-week rotation in outpatient settings. The rotation focuses on comprehensive primary care of the individual patient within the family unit. Emphasizes the primary-care needs of the patients in rural and inner-city communities. (240-0-6)

**PAJ 6330—Internal Medicine**

Required six-week rotation in outpatient and/or inpatient settings. The rotation focuses on the diagnosis, treatment, and management of acute and chronic medical problems seen in the internal medicine practice. The emphasis is on the adult nonsurgical patient. (240-0-6)

**PAJ 6340—Pediatrics**

Required six-week rotation in outpatient/inpatient settings. The rotation focuses on the normal and abnormal growth and development, disease prevention, and health care of the child from neonate through adolescence. It emphasizes the primary care of the pediatric patient. (240-0-6)

**PAJ 6350—Prenatal Care and Gynecology**

Required six-week rotation in outpatient and/or inpatient settings that teaches prenatal care and treatment and gynecological diagnosis and management. It emphasizes the primary care of the female patient and includes obstetrics. (240-0-6)

**PAJ 6360—General Surgery**

Required six-week rotation in outpatient and/or inpatient settings. The students will learn to diagnose, treat, and manage the surgical patient. It emphasizes the surgical conditions commonly encountered in the primary-care setting. (300-0-6)

**PAJ 6370—Clinical Elective I**

Six-week elective, full-time clinical rotation that provides an opportunity to investigate a medical or surgical subspecialty area or gain more experience in primary care. Each elective may be taken sequentially or separately, but not at the same clinical site. (240-0-6)

**PAJ 6380—Clinical Elective II**

Six-week elective, full-time clinical rotation that provides an opportunity to investigate a medical or surgical subspecialty area or gain more experience in primary care. Each elective may be taken sequentially or separately, but not at the same clinical site. (240-0-6)

**PAJ 6390—Clinical Elective III**

This four-week elective rotation will be completed at the end of the clinical year. Elective rotations provide an opportunity to investigate a medical or surgical subspecialty area or gain more experience in a required discipline. (160-0-4)

**PAJ 6600—Graduate Project**

With the guidance of a faculty adviser, students will use the skills acquired in Epidemiology and Interpretation of the Medical Literature to create a graduate project. The project features topics in clinical or administrative medicine and consists of a comprehensive literature review and evaluation and completion of a publishable review paper. The project allows the student to demonstrate his or her ability to research and compile information and to present that information in a clear, written form. (0-0-3)

## Sources of Additional Information

Disclaimer: Links to non-NSU Internet sites are provided for your convenience and do not constitute an endorsement.

- For information on a career as a physician assistant, contact  
American Academy of Physician Assistants Information Center  
950 North Washington Street  
Alexandria, Virginia 22314-1552  
[www.aapa.org](http://www.aapa.org)
- For a list of accredited programs and a catalog of individual physician assistant training programs, contact  
Physician Assistant Education Association  
300 North Washington Street  
Suite 710  
Alexandria, Virginia 22314-2544  
(703) 548-5538  
[www.paeaonline.org](http://www.paeaonline.org)
- For eligibility requirements and a description of the Physician Assistant National Certifying Examination, contact  
National Commission on Certification of Physician Assistants, Inc.  
1200 Findley Road, Suite 100  
Johns Creek, Georgia 30097  
(678) 417-8100  
[www.nccpa.net](http://www.nccpa.net)
- For information on employment, employment projections, and compensation statistics, contact  
U.S. Bureau of Labor Statistics  
Postal Square Building  
2 Massachusetts Avenue, NE  
Washington, D.C. 20212-0001  
[www.bls.gov](http://www.bls.gov)

## Department of Health Science

The Department of Health Science is an interdisciplinary group of programs designed for health professionals with the desire to advance academically, administratively, or clinically within their profession. Offering distance education from the undergraduate to the doctoral level is consistent with the university's and college's commitment to lifelong learning. The department offers the Bachelor of Health Science (B.H.Sc.) and Master of Health Science (M.H.Sc.) Programs in an exclusively online format. The department also offers two innovative doctoral programs. The Doctor of Health Science (D.H.Sc.) and the Ph.D. in Health Science programs are offered via online and intense compressed residential format. These are postprofessional degrees targeted at health professionals trained at the master's degree level. These programs attract active clinicians, clinician administrators, and health professions educators. A combined M.H.Sc./D.H.Sc. degree is an option also available.

The department also houses several preeminent, on-campus, entry-level programs. The Bachelor of Health Science—Vascular Sonography and Master of Health Science—Vascular Sonography are supported by a state-of-the-art vascular teaching laboratory. We also offer two fully-accredited Master of Health Science—Anesthesiologist Assistant courses of study, one at our main campus in Fort Lauderdale, Florida, and one in Tampa, Florida.

- **Bachelor of Health Science (B.H.Sc.)**—online
- **Bachelor of Health Science—Vascular Sonography (B.H.Sc.)**—entry-level, on-campus

- **Master of Health Science (M.H.Sc.)**—online
- **Master of Health Science—Anesthesiologist Assistant (M.H.Sc.)**—entry-level, on-campus, Fort Lauderdale
- **Master of Health Science—Anesthesiologist Assistant (M.H.Sc.)**—entry-level, on-campus, Tampa
- **Master of Health Science—Vascular Sonography (M.H.Sc.)**—entry-level, on-campus
- **Accelerated Dual Admission M.H.Sc./D.H.Sc.**—online with some residency requirements
- **Doctor of Health Science (D.H.Sc.)**—online with some residency requirements
- **Doctor of Philosophy (Ph.D.) in Health Science**—online with some residency requirements

### Computer Requirements

All students in the department are required to have a computer meeting the minimum requirements listed below.

- Pentium or AMD at 1.00GHz or equivalent Macintosh processor
- 256MB RAM
- video and monitor capable of 1024 x 768 resolution or better
- CD-ROM drive
- full duplex sound card and speakers
- Internet connection with Internet service provider (DSL, cable, or satellite highly recommended)
- Windows XP or NT or MAC OS
- Microsoft Office 2000 or newer with PowerPoint, Word, and Excel minimum
- printer capability
- suggested option: laptop computer with wireless Internet capability for use during campus institutes



## **Bachelor of Health Science Online Degree Completion Program**

The Bachelor of Health Science (B.H.Sc.) program offers an online postprofessional degree advancement program for graduates from associate's degree, diploma, or certificate programs in the health care field, including military-trained health care technicians, radiology technicians, ultrasound technicians, respiratory therapists, dental hygienists, etc. The online B.H.Sc. course of study is interdisciplinary and is designed to provide career and academic advancement for health care practitioners and deliver a well-rounded generalist curriculum. This program is designed to be completed entirely online, requiring no on-campus time, thus allowing the opportunity for members of numerous health care occupations to complete their undergraduate degree while continuing to work.

There have been dramatic changes in the health care market and delivery systems in the United States over the past decade. As health care becomes increasingly competitive, it becomes more important to distinguish one self professionally and academically. The online Bachelor of Health Science Program is offered via the College of Allied Health and Nursing's Web-based distance learning technology that allows health care professionals to remain in their current location and employment.

Upon successful completion of the B.H.Sc. program, students are eligible to apply for admission to continue their education in health sciences in the online Master of Health Science

(M.H.Sc.) and later the Doctor of Health Science (D.H.Sc.) program.

Each of these programs is an online degree program, with the M.H.Sc. having no residency requirement and the D.H.Sc. having a requirement for students to complete two one-week summer institutes.

### **Description of Curriculum**

The program requires that a minimum of 30 semester hours of coursework (including 21 semester hours of required core coursework) be completed through the NSU B.H.Sc. program. A minimum total of 120 semester hours, of which 30 semester hours must fulfill general education requirements, are required to graduate with the B.H.Sc. degree.

The B.H.Sc. program is designed for completion in a distance-learning format and requires no on-campus time. The coursework is professor-paced using Web-based delivery. The curriculum and coursework follow a 12-week semester calendar.

The curriculum is designed to build upon the existing knowledge base of the health care professional while focusing on the overall health care picture. Leadership, diversity, and conflict resolution are but a few of the areas covered in the curriculum.

### **Required Core Courses**

- BHS 3110—Health Care Ethics (3 semester hours)
- BHS 3120—Introduction to Epidemiology (3 semester hours)
- BHS 3150—Principles of Leadership (3 semester hours)

- BHS 3155—Conflict Resolution in Health Care (3 semester hours)
- BHS 3160—Health Policy (3 semester hours)
- BHS 4000—Cultural Competency in Health Care (3 semester hours)
- BHS 4100—Academic and Professional Writing (3 semester hours—must be taken during the first semester of enrollment in the program)

Total: 21 semester hours

Effective for new matriculants on or after January 2006, students will be required to obtain a grade of C or better (greater than or equal to 73 percent) in every required core course. Students receiving a C-, D+, D, or D- in a required core course will be required to retake the course at its next scheduled offering.

## General Education

### General Education Program Mission Statement

Incorporating dynamic resources and methods in various settings, the general education curriculum at NSU provides opportunities for learners to emerge as thoughtful and responsible citizens prepared for a competitive global environment.

In order to be eligible to graduate with the B.H.Sc. degree, a student must have completed 30 semester hours of general education coursework in addition to the B.H.Sc. curriculum with a resulting minimum total of 120 semester hours. If all general education requirements are not met at the time of admission, they can be obtained concurrently while enrolled in the B.H.Sc. program. A student

can obtain and transfer these courses through NSU's Farquhar College of Arts and Sciences or another regionally accredited college or university. A limited number of D grades may be considered to meet elective requirements, depending on the total number of credits being transferred and where the D grades are being applied to the curriculum.

Effective January 1, 2006, prior to matriculation, all applicants must have completed a minimum of three semester hours (or the equivalent) of college-level written composition from a regionally accredited college or university, receiving a minimum grade of a C (GPA of 2.0 on a 4.0 scale).

### Required General Education Coursework:

- composition (3 semester hours above COMP 1000—must be completed prior to matriculation into the program)
- mathematics (3 semester hours—above MATH 1000)
- humanities (6 semester hours)
- social and behavioral sciences (9 semester hours)
- natural and physical sciences (9 semester hours)

Total: 30 semester hours

### Academic Requirements—Writing Across the Curriculum

Each undergraduate course includes written assignments, in the language of instruction, that make up at least 25 percent of the final course grade. Each course contains at least eight pages (approximately 2,000 words or their equivalent) of writing, with faculty members providing feedback on these

assignments. Written assignments can include, but are not limited to, essays, summaries, memos, lesson plans, journal entries, lab reports, project proposals, progress reports, case studies, and project reviews.

### **General Education Program**

The General Education Program is designed to foster critical skills by helping students develop the ability to solve problems, think analytically, and communicate clearly. The program provides a common connection among all NSU undergraduates through a rigorous set of writing; mathematics; humanities; and social, biological, and physical science requirements. As a result of the General Education Program, students develop effective communication skills in speaking, listening, writing, reading, and critical interpretation. The program also helps students place ideas in their proper context and appreciate the role of different cultural traditions.

### **General Education Program Framework**

All students are required to complete general education requirements. Students normally complete general education requirements by the end of their junior year through a series of courses in the areas of communication (including written communication and oral communication), mathematics, humanities (including literature, history, ethics, and general humanities), social and behavioral sciences, and biological and physical sciences.

### **Using General Education Credits for Major and Minor Requirements**

Most courses may count toward both general education and major/minor requirements. Students should refer to

their program curriculum and consult their academic adviser to determine which courses serve both sets of requirements.

### **General Education Learning Outcomes**

Upon successful completion of the General Education Program, students are expected to

1. think critically by
  - a. solving problems
  - b. analyzing data and concepts
2. communicate clearly by
  - a. speaking effectively
  - b. listening effectively
  - c. writing effectively
  - d. reading effectively
  - e. developing clear, coherent, and consistent interpretations
3. place ideas in their proper context
4. explain the key elements of a variety of cultural traditions

### **B.H.Sc. Program Goals**

The Bachelor of Health Science degree program will enable students to

1. pursue a well-rounded and diverse educational degree completion program for health professionals in an online environment that allows them to continue gainful employment in their chosen field while attending and completing coursework
2. enhance and develop leadership and health care knowledge through academic inquiry while using current, practical health care models
3. enhance their understanding of diverse populations in health care and prepare them to take leadership roles in the rapidly changing health care environment

4. enhance their understanding of the political, social, legal, and ethical issues that may be encountered, allowing them to have an impact on areas of health care practice

5. develop knowledge that helps bridge the gap between clinical care, health care diversity, and critical inquiry

### **Expected B.H.Sc.**

#### **Program Learning Outcomes**

Graduates of the Bachelor of Health Science degree completion program will demonstrate command of the following learning outcomes, as evidenced by their participation in class, completion of class assignments, presentations, and projects. They will be able to

1. communicate effectively in writing on a variety of topics related to health care

2. demonstrate an awareness and appreciation of the delivery of culturally competent health care

3. effectively communicate and acknowledge the impact of the legal, ethical, and political environment on health care policy and delivery

4. demonstrate the knowledge and ability to search and retrieve information and materials related to individual clinical practice issues or overall health policy concerns

5. describe and demonstrate management/leadership skills and theories that can be applied in preparation for effectively leading or managing in a health care environment

6. demonstrate knowledge of, and effectively apply, health care models, theories, and tools to issues impacting health care delivery

### **Admissions Requirements**

Prospective B.H.Sc. students are selected by the Department of Health

Science committee on admissions through consideration of the overall qualities of the applicant. The program will admit midlevel clinicians, and allied health professionals with diverse education, work, and life experiences who have demonstrated capacity to pursue the course of study and increasingly responsible positions in health care. Areas of consideration include application content, academic record, prior health care experience, letters of evaluation, and personal motivation. In special circumstances, a personal interview with members of the committee may be required (phone interview may be substituted). All interview expenses are the responsibility of the applicant.

Admission to the B.H.Sc. program requires the following:

1. completion prior to matriculation of three semester hours (or equivalent) of college-level written composition from a regionally accredited college or university with a minimum grade of C (GPA of 2.0 on a 4.0 scale)

Effective January 1, 2006

2. an associate's degree in a field of health from a regionally accredited college or university with a minimum cumulative GPA of 2.0 on a 4.0 grading scale

or

a diploma or certificate of completion in a field of health care

In order for this coursework and education to be considered for credit, an applicant must submit a student-prepared learning portfolio requesting assessment of prior experiences for academic credit. This will describe all traditional, online, mili-

tary, and other health care education, as well as work-related experience and health care-related conferences attended. A resume or CV, transcripts and/or official documentation of attendance must accompany all prior learning portfolios. Learning portfolios will be reviewed to determine the amount of credit given, if any, for prior learning only after an applicant has been accepted into the program.

3. documented evidence demonstrating education or experience in the health care field within the past five years.

All applicants must show evidence of computer skills through course work or self-study prior to the end of the first term. Students may obtain instruction through the NSU Student Microcomputer Laboratory or other training facilities.

It should be noted that many criteria, in addition to academic credentials, play a role in the admission process for the B.H.Sc. program. While the program allows the student to demonstrate academic capability, it does not assure admission to any professional school. Admission to the B.H.Sc. program will not guarantee admission to any other program of Nova Southeastern University.

Upon receipt of the completed application, fees, credentials and transcripts, the admissions officers and the College of Allied Health and Nursing will review all material for evidence of the proper education, training, and background to enter the B.H.Sc. program.

## Transfer Credit Policy

Students who have earned college credits at other regionally accredited colleges or universities can transfer these credits into the B.H.Sc. program. Students should contact a B.H.Sc. admissions counselor to discuss how prior college credits can be used to obtain the B.H.Sc. degree.

An evaluation of transfer credit will be completed prior to, or during, the first semester of enrollment, and applicable credit will be transferred based on all final official transcripts received. Students will be advised to take courses based on the official evaluation in their file.

Transfer students must provide final official transcripts from all their previous colleges; their previous academic work will then be evaluated. The B.H.Sc. program will transfer a maximum of 90 eligible semester credits including credit for CLEP, proficiency exams, and prior experiential learning toward a degree.

A limited number of *D* grades may be considered, depending on the total number of credits being transferred and where the *D* grades are being applied to the curriculum.

Students must complete a minimum of 25 percent (30 semester hours) of their coursework within the B.H.Sc. program major.

Students with credits, health care or academic experiences, certificates, diplomas or degrees from nationally accredited colleges, military training or other educational training/experiences should refer to the section below titled: Assessment of Prior Experiences for Academic Credit in order to apply

to convert these prior experiences into academic credit.

### **Assessment of Prior Experiences for Academic Credit**

Nova Southeastern University has established four different mechanisms for students to convert their prior experiences into academic credit. Students must initiate all requests for experiential learning credit before they complete 24 credits at NSU. Credits will be transcribed after 12 credits are successfully earned at NSU. For additional information, contact the B.H.Sc. Program or the Office of Prior Learning Assessment at (954) 262-8414 or 800-356-0026, ext. 28414, or via email at [miletsky@nsu.nova.edu](mailto:miletsky@nsu.nova.edu).

#### **1. CLEP/DANTES/ACT-PEP/ Computer Test-Out**

Students can demonstrate their knowledge in a variety of areas by taking objective tests. The coordinator of experiential learning can provide further information about these tests as can the testing office in Academic Services.

#### **2. Nationally Accredited School Portfolios**

Students who have attended nationally accredited institutions have the opportunity to write school portfolios. The coordinator of experiential learning works with each student in reviewing the student's nationally accredited institutional transcript to identify courses that may be applied toward his or her academic goal.

#### **3. Full Portfolio—Course Challenge**

The full portfolio is the process for challenging a college-level course for credit. Through this

mechanism, a student presents his or her knowledge on a topic and has it evaluated by a faculty member. A maximum of 25 percent of a student's credits may be earned through the full portfolio process.

#### **4. Standard Grant**

Certain training courses, military experiences, or licenses may be converted into college credit. This can be done by supplying some very basic documentation. For military training programs the recommendations contained in the *Guide to the Evaluation of Educational Experiences in the Armed Forces* from the American Council on Education, will be used to evaluate such training for credit transfer. Examples include Combat Casualty and Flight Medicine Courses of training.

### **Distance Education Support**

Distance education students in the B.H.Sc. Program are provided with NSU computer accounts including email. The student, however, must obtain their own Internet service providers (ISP) and use their own computer systems (IBM-compatible PC or Apple Macintosh and a modem). New students receive an orientation and extensive online technical support online access, online tools and methods, and library resources.

Online interactive learning methods involve Web pages to access course materials, announcements, the electronic library, and other information, plus a range of online activities that facilitate frequent student-professor interaction. Faculty members and students interact via online forums using threaded bulletin boards, chat rooms, and email. Students are able to submit assignments as email attachments,

through the use of online forms sent directly to program instructors, fax to fax, fax to email, and through WebCT. Some online courses may include electronic classroom sessions.

Online students have access to books, journal articles, microfiche, dissertations, index searches, catalog searches, and reference librarians. The online medical database collection at NSU is extensive and includes access to quality subscription services free of charge to the student.

### Technical Help

The Online Computing Help Desk of NSU's Office of Information Technology provides telephone and email support to NSU students and faculty and staff members. Support services include assistance with connecting to NSU's online computing systems; navigating through the WebCT system; resolving Personal Identification Number (PIN) issues; supporting wireless computing on campus; and configuring various software programs such as Microsoft Outlook, Netscape Navigator, and Internet Explorer. Contact the Help Desk by calling (954) 262-4357 or 800-541-6682, ext. 24357, or by emailing [help@nsu.nova.edu](mailto:help@nsu.nova.edu).

### Testing Services

Testing Services administers placement challenge exams in writing, mathematics, and chemistry for all NSU undergraduate students, as well as offering faculty make-up exams. Testing Services also administers other course equivalent examinations, such as College-level Examination Program (CLEP) tests, DANTES subject standardized tests, New York

University Proficiency Testing in Foreign Languages, and the TECH 1110 exam. Test takers must present photo identification (e.g., NSU official ID, driver's license, or passport) prior to testing. All examinations are by appointment only. For more information about Testing Services or to schedule an appointment, call (954) 262-8374 or 800-338-4723, ext. 28374.

### Application Procedures

Candidates for admission are responsible for the submission of

- a completed application form along with a \$50, nonrefundable application fee
- two letters of evaluation from individuals other than relatives such as academic advisers, professors, or clinical or nonclinical supervisors, or a community associates
- official college, certificate and/or diploma-based transcripts from all undergraduate and graduate institutions attended, sent directly from the institution
- graduates from programs other than those from regionally accredited colleges or universities must submit a student prepared learning portfolio requesting Assessment of Prior Experiences for Academic Credit.
- copies of national and or state professional certification, licensure or registration, if applicable.
- coursework taken at a foreign institution must be evaluated for U.S. institutional equivalence. Foreign coursework must be evaluated by one of the following services:
  - World Education Services  
P.O. Box 745  
Old Chelsea Station  
New York, New York 10113-0745

(212) 966-6311  
*www.wes.org*

· Josef Silny & Associates  
7101 SW 102nd Avenue  
Miami, Florida 33173  
(305) 273-1616  
(305) 273-1338 fax  
*www.jsilny.com*  
*info@jsilny.com*

· Educational Credential Evaluators  
P.O. Box 514070  
Milwaukee, Wisconsin 53203-3470  
(414) 289-3400  
*www.ece.org*

The B.H.Sc. program offers four start dates per year: January, April, July, and October. In order to be considered for January, applications must be received by December 1. In order to be considered for April, applications must be received by March 1. In order to be considered for July, applications must be received by June 1. In order to be considered for October, applications must be received by September 1. To ensure that your application receives prompt consideration, you should apply early. All admissions materials should be sent to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
Attn: College of Allied Health  
and Nursing—B.H.Sc. Program  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida 33329-9905

The Department of Health Science committee on admissions will not consider an application until all required fees, credentials, transcripts and test scores have been received by the Office of Admissions.

The university reserves the right to modify any requirements on an individual basis as deemed necessary by

the dean of the College of Allied Health and Nursing. The college reserves the right, and the student, by his or her act of matriculation, concedes to the college the right, to require his or her withdrawal any time the college deems it necessary to safeguard its standards of scholarship, conduct and compliance with regulations or for such other reasons as are deemed appropriate.

The dean, department chair, and B.H.Sc. program director reserve the right to require the student's withdrawal at any time for the above-mentioned reasons.

### **Tuition and Fees**

- \$50, nonrefundable application fee
- Tuition is \$250 per semester hour for courses offered during the winter and spring 2011 terms. Tuition is \$300 per semester hour for courses offered during the summer II and fall 2011 terms.
- An NSU student services fee of \$750 is required annually.
- Students are responsible for purchasing any required textbooks and/or classroom materials.
- \$75 diploma only fee
- A graduation and diploma fee of \$225 will be incurred by those students who elect to participate in the formal, on-campus graduation ceremony (not required).

Tuition waivers and discounts for NSU students, staff, and faculty members will be in accordance with published policy and administered through the dean of the College of Allied Health and Nursing. Tuition, fees, and payment schedules are subject to change without notice.



## Requirements for Graduation

To be eligible to receive the B.H.Sc. degree, students shall

- satisfactorily complete the program of 30 semester hours (minimum) of study in the B.H.Sc. major required for the degree (not including CLEP, proficiency examinations, or experiential learning credits)
- complete general education, major, and elective requirements as specified by the program at time of admission, resulting in a minimum total of 120 semester hours
- attain a 2.0 cumulative grade point average
- attain a 2.25 grade point average in the major area
- submit a degree application form before completing registration for the last semester.
- fulfill all obligations to the library, the student's program, and the bursar's office
- receive recommendation by B.H.Sc. program director to the dean of the College of Allied Health and Nursing

## Graduation with Honors

A student eligible for graduation with a cumulative grade point average of 3.8 or higher who has completed at least 54 credits at NSU is eligible to receive the degree with distinction.

Students who have earned fewer than 54 credits at NSU may petition for graduation with distinction if they have maintained at least a 3.8 GPA in all coursework accepted toward their degree program at NSU. Degree candidates must complete all of the requirements as specified above.

Application for graduation can be completed online by following the

directions at [www.nova.edu/cwis/registrarinstructions.html](http://www.nova.edu/cwis/registrarinstructions.html).

## Commencement

Attendance of graduation ceremonies is not a requirement for distance education students. It is, however, an option that the department encourages and that takes place once a year (in August).

Information regarding graduation ceremonies for the College of Allied Health and Nursing is posted at [www.nova.edu/cwis/hpdasa/graduation/](http://www.nova.edu/cwis/hpdasa/graduation/). This page explains general information and contains online forms that must be filled out.

## Nondegree-Seeking Students

A nondegree-seeking student is one who wishes to take a course/s in the Bachelor of Health Science Program, but does not intend to pursue the B.H.Sc. degree at the time of application.

The nondegree-seeking student must meet the following admission requirements in order to take classes in the B.H.Sc. program:

- completion prior to matriculation of three semester hours (or equivalent) of college-level written composition from a regionally accredited college or university with a minimum grade of C (GPA of 2.0 on a 4.0 scale)

Effective January 1, 2006

- a minimum of an associate's degree or equivalent credit hours in a field of health, from a regionally accredited college or university

or

a diploma or certificate of completion in a field of health care

## Nondegree-Seeking Student Application Procedures

Nondegree-seeking students must submit

- a completed application form along with a \$50, nonrefundable application fee.
- official college, certificate, and/or diploma-based transcripts from all undergraduate and graduate institutions attended, sent directly from the institution.
- one letter of evaluation from individuals other than relatives such as academic advisers, professors, or clinical or nonclinical supervisors, or a community associate

Due to the limited number of seats available in the program, preference for admission and registration priority will be given to degree-seeking students.

Nondegree-seeking students are limited to taking a maximum of nine semester hours of B.H.Sc. coursework. Enrollment in these courses does not guarantee acceptance into the B.H.Sc. degree program or any other Nova Southeastern University program.

If after taking classes in the B.H.Sc. program a nondegree-seeking student decides to pursue the B.H.Sc. degree, the student must resubmit an application to the program to be a degree-seeking student and must meet all the admission requirements for the B.H.Sc. degree program.

A nondegree-seeking student who, after taking classes in the B.H.Sc. program, decides to apply to be a degree-seeking student may request a transfer of credits taken as a nondegree-seeking

student in accordance with the transfer policy of the B.H.Sc. program.

## Computer Skills

All applicants must show evidence of computer skills through coursework or self-study prior to the end of the first term. Students may obtain instruction through the NSU Student Microcomputer Laboratory or other training facilities.

## Address and Name Changes

NSU maintains student contact information through WebSTAR ([www.webstar.nova.edu](http://www.webstar.nova.edu)). This includes current mailing addresses and telephone numbers. Students should update their records in WebSTAR and notify their academic division if there is a change in their name and/or contact information.

## **Bachelor of Health Science— Vascular Sonography (On-Campus, Entry-Level)**

Diagnostic Medical Sonography (DMS) uses the properties of sound to image tissues and organs within the body. Vascular Sonography is a specialty of DMS, focusing on the assessment of all arteries and veins of the body (excluding those located in the heart).

Vascular sonographers are an important part of the medical team. Clinical settings using the skills and services of vascular sonographers typically include imaging centers, radiology departments, and cardiology or vascular surgery offices. The demand for vascular sonographers is projected to increase primarily due to the aging of the population, as seniors are generally more prone to vascular problems.

The Bachelor of Health Science—Vascular Sonography course of study at Nova Southeastern University is designed to train highly skilled and knowledgeable vascular technologists who are prepared to take leadership positions in diagnostic laboratories, clinical research, and education in the field of vascular sonography.

### **Program Objectives**

- to graduate competent vascular technologists who are qualified to perform a variety of standard and specialized diagnostic vascular procedures
- to ensure that graduates are qualified to take and successfully pass a national credentialing exam, from either the American Registry of Diagnostic Medical Sonography

(ARDMS) or Cardiovascular Credentialing International (CCI)

- to prepare graduates for future leadership roles in vascular laboratories and ultrasound departments
- to enhance the student's academic skills for pursuing research studies or education in the field of vascular sonography

Upon successful completion of the vascular sonography specialization, students are eligible to apply for admission to the Master of Health Science (M.H.Sc.) and later the Doctor of Health Science (D.H.Sc.) programs. Each of these programs is an online degree program, with the M.H.Sc. having no residency requirement and the D.H.Sc. having a requirement for students to complete two one-week summer institutes.

### **Curriculum Overview**

Admission to the program requires the completion of a minimum of 30 semester hours of general education coursework. The core of the vascular sonography course of study includes 96 semester hours. The entire program requires a total of 126 semester hours for a student to graduate with a Bachelor of Health Science—Vascular Sonography.

The first year of the course of study is designed as a combination of on-campus lectures, ultrasound laboratory practice, and online courses. Students will learn theory in the lecture and online courses, and apply that knowledge in the ultrasound laboratory.

The second year will focus almost entirely on clinical training for a mini-

num of 48 weeks, with a minimum of 35 hours per week, with hands-on experience in a vascular laboratory under the supervision of a registered vascular technologist. Students will be required to fulfill competencies outlined in the clinical syllabus. These competencies include all aspects of vascular sonography training and professional development. In addition, four online courses are required during the senior year.

Online courses are provided to students through NSU computer accounts that include email. Students, however, must obtain their own Internet service provider (ISP) and their own computer system (IBM-compatible PC or Apple Macintosh, and modem.) New students are provided with an orientation and extensive online support on computer and software requirements, online access, online tools, and library resources.

### **Prerequisites**

In order to apply to the Bachelor of Health Science—Vascular Sonography (B.H.Sc.) specialization, a student must have completed 30 semester hours of general education coursework as prerequisites. Only courses with a minimum GPA of 2.0 on a 4.0 grading scale will be accepted.

### **Required General Education Coursework**

- composition (3 semester hours—above COMP 1000)
- mathematics (3 semester hours—above MATH 1000, college algebra recommended)
- humanities (6 semester hours)
- social and behavioral sciences (9 semester hours)

- natural and physical sciences (9 semester hours—3 semester hours of physics required, 6 semester hours of human, biological, and physical sciences, of these, anatomy and physiology are strongly recommended)

Total: 30 semester hours

### **Admissions Requirements**

All applicants to the program must have a minimum of 30 semester credits from a regionally accredited college or university (as outlined previously) with a minimum cumulative GPA of 2.5 on a 4.0 grading scale. Only courses with a minimum GPA of 2.5 on a 4.0 grading scale may be considered for transfer.

All applicants must show evidence of computer skills through coursework or self-study prior to the end of the first term. Students may obtain instruction through the NSU Student Microcomputer Laboratory or other training facilities.

Upon receipt of the completed application, fees, credentials, and transcripts, the admissions officers and the College of Allied Health and Nursing will review all material for evidence of the proper education, training, and background to enter the B.H.Sc.—Vascular Sonography specialization.

Prospective vascular sonography students are selected by the Department of Health Science committee on admissions through consideration of the overall qualities of the applicant. The program will admit individuals with diverse education, work, and life experiences who have demonstrated capacity to pursue the course of study in vascular sonography. Areas of consideration include application content, academic record, letters of evaluation and personal motivation.

## Personal Interviews

Once the application is completed, the Committee on Admissions will decide whether or not the application is strong enough to warrant an invitation for a personal interview. Interviews are conducted on the Nova Southeastern University main campus and are by invitation only. An invitation to interview is not a guarantee of admission. Notice of acceptance or action by the Committee on Admissions will be on a “rolling” or periodic schedule; therefore early completion of the application is in the best interest of the student.

Admission to the vascular sonography course of study will not guarantee admission to any other program of Nova Southeastern University.

The Department of Health Science committee on admissions will not consider an application until all required fees, credentials, transcripts, and test scores have been received by the Office of Admissions.

The university reserves the right to modify any requirements on an individual basis as deemed necessary by the dean of the College of Allied Health and Nursing. The college reserves the right, and the student, by his or her act of matriculation, concedes to the college the right to require his or her withdrawal any time the college deems it necessary to safeguard its standards of scholarship, conduct, and compliance with regulations or for such other reasons as are deemed appropriate.

The dean, department chair, and vascular sonography director reserve the right to require the student’s withdrawal at any time for the above-mentioned reasons.

## Application Procedures

Candidates for admission are responsible for the submission of:

- completed application forms with \$50, nonrefundable application fees
- two letters of evaluation from individuals other than relatives such as academic advisers, professors, or clinical or nonclinical supervisors, or community associates
- official college, certificate, and/or diploma-based transcripts from all undergraduate and graduate institutions attended, sent directly from the institution
- a student-prepared learning portfolio requesting Assessment of Prior Experiences for Academic Credit, if applicable (graduates from programs other than those from regionally accredited colleges or universities only)
- copies of national and or state professional certification, licensure or registration, if applicable.
- evaluation of coursework taken at a foreign institution for U.S. institutional equivalence, if applicable

Foreign coursework must be evaluated by one of the following services:

- World Education Services  
P.O. Box 745  
Old Chelsea Station  
New York, New York 10113-0745  
(212) 966-6311  
[www.wes.org](http://www.wes.org)
- Josef Silny & Associates  
7101 SW 102nd Avenue  
Miami, Florida 33173  
(305) 273-1616  
(305) 273-1338 fax  
[www.jsilny.com](http://www.jsilny.com)  
[info@jsilny.com](mailto:info@jsilny.com)

· Educational Credential Evaluators  
P.O. Box 514070  
Milwaukee, Wisconsin 53203-3470  
(414) 289-3400  
[www.ece.org](http://www.ece.org)

- resumes or curricula vitae

The Office of Admissions for the B.H.Sc.—Vascular Sonography works on a rolling admissions basis. Applications are accepted year round. To ensure that your application receives prompt consideration, you should apply early. All admissions material should be sent to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Allied Health  
and Nursing—Department of  
Health Science  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905

## Distance Education Support

Students on clinical externships in vascular sonography must maintain NSU computer accounts including email. New students receive an orientation and extensive online technical support online access, online tools and methods, and library resources.

Online interactive learning methods involve Web pages to access course materials, announcements, the electronic library, and other information, plus a range of online activities that facilitate frequent student-professor interaction. Faculty members and students interact via online forums using threaded bulletin boards, chat rooms, and email. Students are able to submit assignments as email attachments, through the use of online forms sent directly to program instructors, fax to

fax, fax to email, and through WebCT. Some online courses may include electronic classroom sessions.

Online students have online access to books, journal articles, microfiche, dissertations, index searches, catalog searches, and reference librarians. The online medical database collection at NSU is extensive and includes access to quality subscription services free of charge to the student.

## Tuition and Fees

- \$50, nonrefundable application fee
- \$17,500 tuition per academic year
- \$500 acceptance fee
- \$250 deposit
- \$250 preregistration fee
- \$200 Sonography Principles and Instrumentation (SPI) Examination fee
- Students are responsible for purchasing any required textbooks, uniforms, white coats and/or classroom materials.
- A graduation and diploma fee of \$225 will be incurred.
- A \$125 vascular access fee is required yearly. This fee is required to pay for background checks, drug testing (if required), affiliation agreements, and immunizations
- Applicants should have a specific plan for financing 24 months of professional education. This includes tuition, living expenses, books, equipment, and miscellaneous expenses. Each student is required to carry adequate personal medical and hospital insurance. Students may avail

themselves of the hospital insurance plan through the university.

Tuition waivers and discounts for NSU students, staff, and faculty members will be in accordance with published policy and administered through the dean of the College of Allied Health and Nursing. Tuition, fees, and payment schedules are subject to change without notice.

### **Requirements for Graduation**

To be eligible to receive the Bachelor of Health Science—Vascular Sonography degree, students are required to

- complete general education, major, and elective requirements as specified by the program at time of admission, resulting in a minimum total of 126 semester hours
- attain a 2.0 cumulative grade point average
- submit a degree application form before completing registration for the last semester
- fulfill all obligations to the library, the student's program, and the bursar's office
- attend rehearsal and graduation ceremonies
- take the ARDMS Sonography Principles and Instrumentation (SPI) Examination by the end of their first year

### **Graduation with Honors**

A student eligible for graduation with a cumulative grade point average of 3.8 or higher who has completed at least 90 credits at NSU is eligible to receive the degree with distinction.

### **Computer Skills**

All applicants must show evidence of computer skills through coursework or self-study prior to the end of the first term. Students may obtain instruction through the NSU Student Microcomputer Laboratory or other training facilities.

### **Accreditation, National Examinations, and Registry**

The Vascular Sonography course of study is accredited through the Commission on Accreditation of Allied Health Education Programs (CAAHEP) Joint Review Commission on Education in Diagnostic Medical Sonography (JRC-DMS). JRC-DMS, Address: 2025 Woodlane Drive, St. Paul, MN 55125-2998, Telephone: 651-731-1582, Web-site: [www.jrcdms.org](http://www.jrcdms.org). Amanda Glassing, Accreditation Manager, Email: [aglassing@jcahpo.org](mailto:aglassing@jcahpo.org), Telephone: 651-731-1582.

Graduates will be eligible to take the national registry examination administered by the American Registry of Diagnostic Medical Sonographers (ARDMS)

American Registry of Diagnostic Medical Sonographers (ARDMS)  
51 Monroe Street, Plaza East One,  
Rockville, Maryland 20850-2400

Tel: (301) 738-8401 or 800-541-9754

Fax: (301) 738-0312

## Curriculum Outline Bachelor of Health Science—Vascular Sonography

Required General Education Courses	Semester Hours
Composition*	3
Social and behavioral sciences	9
Humanities	6
Natural and physical sciences**	9
Mathematics***	3

**General Education Subtotal: 30**

\* 3 COMP credits above COMP 1000

\*\* physics—required, anatomy and physiology—recommended

\*\*\* 3 MATH credits above MATH 1000 (college algebra recommended)

### Required Core B.H.Sc.—Vascular Sonography Courses Semester Hours

BHS 3110	Health Care Ethics	3
BHS 3120	Introduction to Epidemiology	3
BHS 3130	Research and Design for Health Care	3
BHS 3150	Principles of Leadership	3
BHS 3155	Conflict Resolution in Health Care	3
BHS 3160	Health Policy	3
BHS 4000	Cultural Competency in Health Care	3
BHS 4100	Academic and Professional Writing	3
BHS 4110	Health Care and Aging	3
BSV 3100	Ultrasound Physics I/Lab	3
BSV 3200	Ultrasound Physics Review	1
BSV 3220	Introduction to Diagnostic Medical Sonography	2
BSV 3300	Cerebrovascular Testing/Lab	4
BSV 3400	Venous Testing/Lab	4
BSV 3500	Peripheral Arterial Testing/Lab	5
BSV 3600	Abdominal Vascular Testing/Lab	5
BSV 3700	Clinical Preparation and Review	4
FME 5105	Basic Life Support	1
BSV 4500	Clinical Externship I (16 weeks)	12
BSV 4600	Clinical Externship II (16 weeks)	12
BSV 4700	Clinical Externship III (16 weeks)	12
PHS 4904	Advanced Anatomy for Health Professions	4

**Required B.H.Sc. Courses Subtotal: 96**

**Minimum Total Semester Hours Required: 126**

In order to be eligible to graduate with the bachelor of health science—vascular sonography degree, a student must have completed 30 semester hours of general education coursework, in addition to the B.H.Sc. curriculum, with a resulting minimum total of 126 semester hours. Only courses with a minimum GPA of 2.5 on a 4.0 grading scale will be accepted.



## Bachelor of Health Science Course Descriptions

\*Denotes a required B.H.Sc. core course

### **BHS 3100— Current Issues in Health Care**

This course discusses current issues and concepts regarding health care to prepare the student with the essential vocabulary and thought processes to understand and evaluate the legal, political, and ethical challenges facing health care in the United States. (3 semester hours)

### **BHS 3101— History of the U.S. Health System**

This course will examine the origins and ongoing development of the U.S. health system. Students will gain historical understanding of the origins and forces that have influenced change within the US health care system. (3 semester hours)

### **BHS 3110—Health Care Ethics\***

This course is designed to introduce ethical thinking and concepts regarding health care to prepare the student with the essential vocabulary and thought processes to understand, evaluate, and participate in ethical decision making. (3 semester hours)

### **BHS 3120—Introduction to Epidemiology\***

The purpose of this course is to introduce the history and development of epidemiology in relation to public health and disease. Communicable, epidemic, and endemic as well as social disease will be discussed. (3 semester hours)

### **BHS 3130—Research and Design for Health Care**

This course is designed as an introduction to critical analysis of research and medical literature as well as basic research methods. The course includes an introduction to descriptive and inferential statistics and research design. Statistical and research concepts and procedures are combined with an emphasis on practical health care applications. (3 semester hours)

### **BHS 3140—Health Care Practice**

The purpose of this course is to study the legal implications of licensing, practice, and contractual employment. The importance of understanding rules of practice and standards of care are discussed. (3 semester hours)

### **BHS 3145—Principles of Environmental Health**

This course will introduce students to the principles of environmental health and their importance to human populations. Some of the topics covered include environmental quality, occupational health, vector-borne and pandemic diseases, and hazardous materials management, as well as the regulations promulgated to manage each. (3 semester hours)

### **BHS 3150— Principles of Leadership\***

This course will provide an overview of numerous leadership theories to prepare the student for a leadership role in health care. The course will critically analyze the differences between leadership and management. (3 semester hours)

**BHS 3151—  
Health Services Management**

This course will provide an overview of health care and general management to prepare the student for a managerial role in health care administration. Course topics include human resource issues and policy, personnel planning, staffing, development, coaching, and training of employees. (3 semester hours)

**BHS 3155—Conflict  
Resolution in Health Care\***

The purpose of this course is to develop an understanding of the conflict and effective methods and strategies for reducing the incidence of workplace conflict including employee-employee conflict, supervisor-subordinate conflict, patient-patient conflict, and patient/client-provider conflict. (3 semester hours)

**BHS 3160—Health Policy\***

This course provides the student with a broad understanding of policy, how health care is organized and dispensed, and how the practitioner can better work in the system. Topics of discussion include cost control, long term care, quality control, ethical issues, and insurance. (3 semester hours)

**BHS 3161—  
Concepts of Health Care Finance**

This course introduces the fundamental tools, concepts, and applications aimed at giving students an understanding of numerous financial theories and techniques used in health care financial management. The course materials are structured around emerging health care policies and the role economics and finance play in establishing policy. Case studies are drawn from a variety

of sources including health maintenance organizations, home health agencies, nursing units, hospitals, and integrated health care systems. Some topics of discussion will include concepts of capital financing for providers, budgeting, financial ethics, payment systems, provider costs, the high cost of health care, and measuring costs. (3 semester hours)

**BHS 3162—Economics of Health  
Care Services**

This course will teach the student to use economic analysis to understand critical issues in health care and health policy. Issues to be studied include the demand for health care, health insurance markets, managed care, medical technology, government health care programs, national health reform, and the pharmaceutical industry. The course will focus on the U.S. health care sector, but will also examine the health care systems of other countries. (3 semester hours)

**BHS 3170—  
Health Care Delivery Systems**

This course is designed as an introduction to health care plans that are underwritten by the federal government as well as selected private HMOs. Topics will include Medicare, Medicaid, public health, Indian Health Service, Veterans Administration, military health systems, and managed care. An understanding of the social, political and professional forces that shape the health care delivery system will be discussed. (3 semester hours)

**BHS 3190—  
Patient Education in Health Care**

Patient education is an integral part of health care in every setting, from

patient treatment to health and wellness promotion to injury and illness prevention. The focus of this course is to explore the many issues that impact patient education, from both a health care professional and a management perspective. Adult education theory, patient/practitioner interaction, communication barriers, strategies for success, Web-based patient education, documentation, federal laws and initiatives, and standards for patient education are some of the topics that will be examined. (3 semester hours)

### **BHS 3195—Therapeutic Communications for Health Care Professionals**

This course covers a variety of general concepts and contemporary discussions in the area of therapeutic communications. Attention is paid to self-awareness, basic communication skills, and therapeutic responses from all health care professionals. (3 semester hours)

### **BHS 4000—Cultural Competency in Health Care\***

The purpose of this course is to develop competency and better understanding when confronted with issues related to culture, diversity, and ethnically based customs, rituals, alternative health care choices, folk medicine, cultural structure and viewpoints, and the practitioner's delivery of health care. (3 semester hours)

### **BHS 4001—Individuals with Disabilities and Special Needs**

With the continued graying of the American population and the extending life expectancy of individuals with disabilities, there are a growing num-

ber of individuals facing chronic life challenges. These individuals are consumers of health care. It is incumbent on health care providers to understand how different challenges affect a person's abilities. Topics of discussion include laws that impact services, the history of disability care, and specific disabilities and their impact on functioning. (3 semester hours)

### **BHS 4005—Alternative Medicine in Health Care**

This course examines and analyzes alternative and complementary medicine and their impact on the health care industry. The approach to the subject is to present selected alternative and complementary medicine fields in an informative, nonjudgmental format. Example topics include acupuncture, chiropractic, herbal medicine, homeopathy, massage, and naturopathic medicine. (3 semester hours)

### **BHS 4006—Fundamentals of Chinese Medicine**

This course will discuss and analyze the impact, origins, and background of Chinese medicine. It is important to enter this class with an open mind, understanding that there are other forms of treatment for disease different from those taught in westernized medicine programs. Critical analysis of the meridians and pathways and various signs and symptoms associated with disease will be covered. (3 semester hours)

### **BHS 4009—Sports Medicine: Principles and Practice**

This course will present a study of athletic injuries and the principle concepts and practices of sports medicine—including discussion of

prevention, diagnosis, treatment, and recovery. The major musculoskeletal portions of the body will be covered, major preventive measures will be studied, and the major sports injuries will be addressed. The course will identify the medical treatments associated with the major sports injuries. (3 semester hours)

### **BHS 4010—Health Promotion and Disease Prevention**

This course develops the knowledge and skills needed to work with communities to improve health status of the community. Major topics will include health promotion and disease prevention. Special emphasis will be placed on the “Healthy People 2010.” initiatives. (3 semester hours)

### **BHS 4011—Bioterrorism: Health Care Readiness and Response**

This course uses a systems perspective to provide health professionals with an understanding of the prevention and response to the intentional release of harmful biologic agents. Category A diseases will be reviewed including anthrax and smallpox. Risk assessment and reduction for health care facilities will be discussed. The structure of public disaster response agencies and the potential difficulties integrating with privately held critical infrastructure will be evaluated. Tactics and structural components from the class can also be used during unintentional outbreaks to reduce their impact. (3 semester hours)

### **BHS 4012—Torture, Violence, and Trauma: Health Care’s Healing Role**

This course provides an overview of the physical and psychological effects of torture, violence, and trauma. It focuses on the relationship between

health care professionals and victims of human rights violations. Discussion topics include the detection, treatment, and documentation of victims of these events. The course examines the role of health care as it relates to incidents of torture, violence, and trauma. (3 semester hours)

### **BHS 4020—Topics in Maternal-Child Health**

The purpose of this course is to provide an overview of maternal and child health (MCH) issues and topic areas. One to two MCH topics will be discussed weekly. To adequately prepare for class discussion questions and course assignments, students are expected to complete the required readings for each session. This course is designated for individuals who have an interest in working in the area of maternal and child health program development and intervention. (3 semester hours)

### **BHS 4031—Statistics for Health Sciences**

This course is designed to introduce the conceptual foundation of statistical analysis and statistical reasoning of health sciences data and prepare the student to calculate, interpret, and utilize appropriate software packages for basic statistical analysis. (3 semester hours)

### **BHS 4100—Academic and Professional Writing\***

The purpose of this course is to introduce students to the format, content, and thought processes for successful academic and professional writing through use of the NSU B.H.Sc. form and style manual as well as introduction to APA and AMA manuals. An overview of proper sentence and paragraph

structure, grammar, punctuation usage, formatting, and bibliographic referencing will be discussed. (3 semester hours)

#### **BHS 4110—Health Care and Aging**

This course examines the psychosocial and cultural variations associated with maturing and aging. Topics covered will be an overview of life choices, living wills, and treatment, as well as cultural implications of senior care. (3 semester hours)

#### **BHS 4130—Internship**

The student will complete 40 hours of internship in an area of interest within a health care organization. The final project of this internship will be to produce a SWOT analysis of the unit or health care organization. **Note:** Student must receive departmental and adviser approval in order to be allowed to register for this course. (3 semester hours)

#### **BHS 4140—Independent Study**

Students select an area of study in cooperation with the course adviser and/or program director. The project may include such items as work-related studies, conference attendance, grant proposals and/or planning documents. A comprehensive paper will be developed and delivered according to the NSU B.H.Sc form and style manual. **Note:** Student must receive departmental and adviser approval in order to be allowed to register for this course. (3 semester hours)

#### **BHS 4150—The Science of Sound**

This course is designed to introduce students to acoustics. Students will study production of sound waves in general, and more specifically, the production of sound waves during speech. Students will also study the characteristics of sound waves, how sound waves are prop-

agated through a medium, and the perception of sound. (3 semester hours)

#### **BHS 4151—Linguistics and Psycholinguistic Variables of Normal Language Development**

This course will provide an overview of speech and language development as it relates to the typically developing child from birth through adolescence. This course will include topic areas related to the dimensions of communication, neurological and anatomical bases of communication, models of speech and language development, and speech-language differences and diversity. (3 semester hours)

#### **BHS 4152—Neuroanatomy and Neurophysiology of Audition**

This course will provide an introduction to the gross structure of the brain and spinal cord. Functional relationship of their parts, with emphasis on the auditory and vestibular peripheral and central nervous systems, will be discussed. (3 semester hours)

#### **BHS 4153—Speech and Language Disorders for Health Care Practitioners**

Overview of speech and language delays and disorders, their etiology, and their treatment. How health care practitioners can identify people with possible disorders and make appropriate referrals. Consideration of the communication needs within the health care system of people with speech-language disorders. (3 semester hours)

#### **BHS 4154—Effect of Hearing Impairment on Speech and Language**

Phonologic, morphologic, syntactic, and pragmatic aspects of human communication associated with hearing impairment. Study of methods of screening hearing-

impaired patients for concomitant speech and language disorders. **Prerequisite:** a course in normal language development (3 semester hours)

### **BHS 4160—Education for the Health Professions**

This course will provide an opportunity to explore learning theories, learning styles, testing and assessment, education trends, and the use of technology in instruction as it relates to the health professional and professions. (3 semester hours)

### **BHS 5001—APA Writing Seminar**

This course is designed to introduce students to the APA writing form and style. Students will be guided by an instructor in the use of the *APA Publication Manual* and the components of an APA-style academic paper and practicum and internship reports. All courses within the Department of Health Science require that all written assignments be submitted in APA form and style. (3 semester hours)

### **BSV 3100—Ultrasound Physics I/Lab**

This course is designed to introduce the students to the fundamental principles of sound and ultrasound. Students will learn how sound is generated, transmitted, and reflected in soft tissue. In addition, students will learn the principles of Doppler and color flow physics, artifacts, quality assurance, and the bio-effects and safety of diagnostic ultrasound testing. (3 semester hours)

### **BSV 3200— Ultrasound Physics Review**

Ultrasound Physics Review is designed to integrate the principles of ultrasound physics with the theoretical and practical lessons provided in the previous and current sessions. Student will

learn the fundamentals of image acquisition and optimization as it pertains to ultrasound physics (1 semester hour)

### **BSV 3220—Introduction to Diagnostic Medical Sonography**

This course is designed as an introduction to diagnostic medical ultrasound and will provide the basis for the core courses in specific vascular exam modalities studied in the winter and summer terms. The course will, therefore, be primarily taught in the ultrasound training laboratory. It will focus on hands-on participation over lectures and will emphasize understanding of equipment, transducer manipulation, ergonomics, patient rapport, image production, and optimization. This course will also be strongly linked to the introduction to ultrasound physics course. (2 semester hours)

### **BSV 3700— Clinical Preparation and Review**

Clinical Preparation and Review is a course designed to review general medical anatomy and physiology, terminology, treatment, and surgical and nonsurgical options used in the treatment of patients with vascular disease. It is designed to reinforce the non-technical/ultrasound components of the training including clinical ethics; diagnostic and treatment options; and other nonimaging skills such as EKG, lab correlation, and patient/sonographer interaction. This course is to ensure the student is well prepared for the clinical experience that will follow. (4 semester hours)

### **BSV 3300—Cerebrovascular Testing/Lab**

This course will review the cerebrovascular anatomy and physiology

associated with cerebrovascular disease. The student will learn the scanning protocols for extra and intracranial cerebrovascular testing and the diagnostic criteria for assessing disease. The student will also review various diagnostic and treatment options for the patient. **(4 semester hours)**

#### **BSV 3400—Venous Testing/Lab**

This course will review the venous anatomy and physiology associated with venous disease. The student will learn the scanning protocols for deep and superficial venous testing and the diagnostic criteria for assessing disease. The student will also review various diagnostic and treatment options for the patient. **(4 semester hours)**

#### **BSV 3500— Peripheral Arterial Testing/Lab**

This course will review the peripheral arterial anatomy and physiology associated with peripheral arterial system. The student will learn the scanning protocols for upper and lower extremity arterial testing and the diagnostic criteria for assessing disease. The student will also review various diagnostic and treatment options for the patient. **(5 semester hours)**

#### **BSV 3600— Abdominal Vascular Testing/Lab**

This course will review the abdominal anatomy and physiology associated with visceral vascular disease. The student will learn the scanning protocols for abdominal vascular testing and the diagnostic criteria for assessing disease. The student will also review various diagnostic and treatment options for the patient. **(5 semester hours)**

#### **BSV 4500—Clinical Externship I**

The first clinical externship is designed to introduce the student to the vascular laboratory and health care environment. The student will be expected to prepare patients for examinations, complete normal studies under direct supervision of the clinical instructor and write technical impressions on the studies performed. Students will complete competency-based assessment reports each week to the clinical instructor and clinical coordinator. **(12 semester hours)**

#### **BSV 4600—Clinical Externship II**

The second clinical externship is designed to immerse the student into more routine and independent vascular testing. The student will be expected to complete normal studies under indirect supervision and write technical impressions on the studies performed. Students will continue to complete competency-based assessment reports each week for the clinical instructor and clinical coordinator. **(12 semester hours)**

#### **BSV 4700—Clinical Externship III**

The final clinical externship is designed to ensure the student has gained a level of competency with both normal and abnormal studies with greater technical expertise. The student will be expected to complete abnormal studies independently, present cases to the technical and medical director, and write technical impressions on the studies performed. Students will continue to complete competency-based assessment reports each week to the clinical instructor and clinical coordinator. **(12 semester hours)**

**FME 5105—Basic Life Support**

The American Heart Association-approved course leads to certification upon successful completion. (1 semester hour)

**PHS 4904—Advanced Anatomy for the Health Professions**

This course is a survey of human physiology including functional anatomy. It will be presented in an organ-system approach and will cover cellular physiology and the cardiovascular, renal, respiratory, gastrointestinal, endocrine, reproductive, and nervous systems. The course emphasizes the correlation between anatomical and functional, clinical application, and uses of anatomical terminology. Students apply these concepts in the anatomy laboratory setting using resources such as cadaver dissection, radiographs, MRI, CT, and scans. (4 semester hours)



## Master of Health Science Program for Health Professionals

The Master of Health Science (M.H.Sc.) Program is a distance education program designed to provide health professionals the theoretical and academic training necessary to enhance career mobility and professional advancement.

Health professionals practicing today in urban and rural communities throughout the nation are highly recognized as valuable members of the health care team who make quality care more accessible while reducing costs. These health care professionals are playing a prominent and respected role in providing community medical service. An increasing number of employers are seeking master's-level, academically prepared professionals to fill expanded roles that include clinical specialization, health education, research, and health care administration.

The M.H.Sc. didactic curriculum provides education in a variety of health related topics. The practical component of the program will be tailored to the individual interest and goal of the graduate student. Under faculty guidance, students will demonstrate increased understanding in their chosen area of study.

The M.H.Sc. program is designed for working nonphysician clinicians and health professionals who have graduated from an accredited health program, as well as health care managers and administrators. The internship component of the M.H.Sc. program may be conducted at hospitals, private institutions, or locations approved by M.H.Sc. program administration.

## Admissions Requirements

The Department of Health Science Committee on Admissions considers the overall qualities of the applicant. Areas of consideration include personal motivation, quality and length of prior health care experience, academic performance and level of achievement, life experiences, and personal recommendations. The M.H.Sc. Program will admit clinical and administrative health care professionals with diverse undergraduate and professional education, health care work history, health care administrative experience, and life experiences who have a demonstrated capacity to pursue a rigorous course of master's degree study and increasingly responsible positions in the health care arena.

Prospective M.H.Sc. students are selected by considering the overall qualities of the applicant through application content, academic record, prior clinical health care experience or one to three years of responsible administrative health care experience, letters of evaluation, and personal motivation. In special circumstances, a personal interview may be required. Prior to matriculation into the program, applicants must hold a bachelor's degree from a regionally accredited college or university with a minimum cumulative grade point average (GPA) of 2.5 or higher on a 4.0 scale.

**Prior clinical health care experience or one–three years of health administrative experience is required.** The M.H.Sc. is a postprofessional degree designed for health practitioners, clinicians, and administrators from a wide variety of disciplines. **The commonality exhibited by our students is one–three years of responsible health care administrative**

**managerial or supervisory experience and/or the practice of a recognized health occupation that requires registration, certification, or licensure.**

The successful applicant's health professional experience emphasizes the delivery of clinical services to individuals (e.g., physician assistant, physical therapist, dental hygienist, registered nurse, vascular sonographer, radiology technician, respiratory therapist, etc.). The successful applicant's health administrative experience includes individuals who act as professional administrators in a variety of health care settings.

Applicants who qualify under the clinical health professional pathway will document their eligibility through state and/or national registration, certification, or licensure in a clinical health field. Applicants who qualify under the health administration pathway will document their experience with an organizational chart showing their position in a health care organization and a letter of reference from a supervisor attesting to their experience and level of responsibility. Administrative applicants will submit a 500 to 1,000 word essay describing their personal and career goals.

All applicants must show evidence of computer skills through coursework or self-study skills prior to the end of the first term. Students may obtain instruction through the NSU Microcomputer Laboratory or other training facilities.

The university reserves the right to modify any requirement on an individual basis as deemed necessary by the dean of the College of Allied Health and Nursing.

In order to be considered for admission, applicants must submit the following prior to matriculation:

- official transcripts of all coursework attempted at all colleges and universities must be forwarded, by institutions attended, to the Enrollment Processing Services, Master of Health Science Program

It is the responsibility of the applicant to ensure that arrangements are made for these transcripts to be sent to

Nova Southeastern University  
Enrollment Processing Services  
Attn: College of Allied Health  
and Nursing—M.H.Sc. Program  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905

- completion of a bachelor's degree from a regionally accredited allied health program with a minimum cumulative grade point average of 2.5 or higher on a 4.0 point scale
- national professional certification or licensure (if applicable)
- current state license, registration, or certification (if applicable)
- two letters of evaluation from supervising physicians or managers. This form is supplied with the application package. Additional letters of recommendation are encouraged.

To be eligible for consideration for admission, applicants applying under the administrative pathway must have a minimum of three years of verifiable managerial experience in health care administration. This experience should be readily identifiable on the applicant's resume. A letter of recommendation from the applicant's

current supervisor detailing the applicant's length and level of managerial experience must be submitted with the application.

A personal interview with the committee on admissions may be required in some cases (phone interview may be substituted).

All interview expenses are the responsibility of the applicant.

The university reserves the right to modify any requirements on an individual basis as deemed necessary by the dean of the College of Allied Health and Nursing.

The college reserves the right, and the student, by his or her act of matriculation, concedes to the college the right to require his or her withdrawal any time the college deems it necessary to safeguard its standards of scholarship, conduct, and compliance with regulations or for such other reasons as are deemed appropriate.

The dean and M.H.Sc. program director reserve the right to require the student's withdrawal at any time for the above-mentioned reasons.

## Tuition and Fees

Tuition for academic years 2010–2011 and 2011–2012 is \$300 per credit hour. An NSU student services fee of \$750 is required annually. Tuition waivers and discounts for NSU students and staff and faculty members will be in accordance with published policy and administered through the dean of the College of Allied Health and Nursing. Tuition, fees, and payment schedules are subject to change without notice. Master of Health Law courses offered through the Shepard Broad Law Center cost \$545 per credit hour.

## Application Procedures

The M.H.Sc. program provides admission opportunities throughout the year. Applications may be submitted year round.

Once accepted, a start date will be assigned to the student after personal advisement. There are four start dates per year: January, April, July, and October. The student has a maximum of three years from the start date to complete the degree course of study and apply for the M.H.Sc. degree. Before the applicant can be reviewed for possible admission, the following must be submitted:

- a completed M.H.Sc. application form
- a \$50, nonrefundable application fee
- official transcripts of all coursework attempted at all colleges and universities must be forwarded, by institutions attended, to the Enrollment Processing Services (EPS), Master of Health Science Program Admissions.

It is the responsibility of the applicant to ensure that arrangements are made for these transcripts to be sent.

- a final official transcript, covering all of the applicant's work, must be forwarded to the Office of Admissions prior to matriculation
- two evaluation forms from professional supervisors

These evaluators, preferably supervising clinicians, should know the applicant's personal character and scholastic, clinical, and work abilities.

- official copies of all professional certifications, registrations, licenses or relevant credentialing materials.
- complete CV or resume

- all documents must be received at least one month prior to the anticipated start date.

Nova Southeastern University  
 Enrollment Processing Services (EPS)  
 Attn: College of Allied Health  
 and Nursing—M.H.Sc. Program  
 3301 College Avenue  
 P.O. Box 299000  
 Fort Lauderdale, Florida  
 33329-9905

In special circumstances, a personal interview with members of the committee on admissions may be requested or required. A phone interview may be substituted. Upon the receipt of the completed application and required credentials, the Department of Health Science committee on admissions will recommend to the dean and the M.H.Sc. program director those applicants to be considered for acceptance into the program.

### Foreign Coursework

Undergraduate coursework taken at a foreign institution must be evaluated for U.S. institution equivalence. Foreign coursework must be evaluated by one of the services listed below.

Contact one of the following:

- World Education Services  
 P.O. Box 745  
 Old Chelsea Station  
 New York, New York 10113-0745  
 (212) 966-6311  
[www.wes.org](http://www.wes.org)
- Josef Silny & Associates  
 7101 SW 102nd Avenue  
 Miami, Florida 33173  
 (305) 273-1616  
 (305) 273-1338 fax  
[www.jsilny.com](http://www.jsilny.com)  
[info@jsilny.com](mailto:info@jsilny.com)

- Educational Credential Evaluators  
 P.O. Box 514070  
 Milwaukee, Wisconsin 53203-3470  
 (414) 289-3400  
[www.ece.org](http://www.ece.org)

It is the applicant's responsibility to have this coursework evaluated, and an official evaluation must be sent directly to NSU's Enrollment Processing Services (EPS) from the evaluating service.

### Requirements for Graduation

To be eligible to receive the M.H.Sc. degree, students shall

- be of good moral character
- satisfactorily complete the program of 36 hours (minimum) of study required for the degree with an average grade of B- or a GPA of 2.7 on a 4.0 scale
- successfully complete the M.H.Sc. internship and practicum
- receive a recommendation by the M.H.Sc. program director to the dean of the College of Allied Health and Nursing.

Graduation ceremony attendance is not a requirement for distance education students. It is, however, an option that the department encourages and that takes place once a year (in August).

Students with a cumulative GPA of 3.7 or higher are eligible to receive the degree with honors. Students with a cumulative GPA of 4.0 are eligible to receive the degree with high honors.

## **Course of Study**

The M.H.Sc. Program requires a minimum of 36 semester hours of study to be completed. This includes required core courses. All students are required to have individualized curriculum advisement upon acceptance.

Transfer of up to 6 credit hours of acceptable graduate study is permitted upon approval. These graduate courses must have a grade of *B* or better and must be approved by the M.H.Sc. program director and dean of the College of Allied Health and Nursing. The dean reserves the right to require, in special cases, more than the minimum of 36 semester hours. Transferred courses cannot have been credited toward a previous degree.

Classes are organized and based on accepted distance learning designs and formats.

## Curriculum Outline—Master of Health Science Program

The curriculum involves completion of a minimum of 36 credit hours that must be completed in each of the two categories of courses (didactic and practical). There is some flexibility in curriculum design to accommodate students' overall interests, employment, and educational goals. Educational counseling and advisement is always available to assist in the planning and registration process.

### Generalist Curriculum Courses

<b>Required Core Courses (17 credits)</b>		Credit Hours
MHS 5001	APA Writing Seminar	2
MHS 5205	Writing for Medical Publication	3
MHS 5501	Epidemiology and Biostatistics	3
MHS 5510	Research Methods	3
MHS 5521	Ethical Issues in Health Care	3
MHS 5530	Principles and Practice of Management in Health Care	3
<b>Elective Courses (9 credits—choose three courses)</b>		Credit Hours
MHS 5103	Principles of Advanced Life Support	3
MHS 5112	Bioterrorism and Weapons of Mass Destruction	3
MHS 5211	Contemporary Issues in Nutrition	3
MHS 5400	Directed Studies	1–9
MHS 5541	Health Care Systems and Conflict	3
MHS 5542	Health Care Education	3
MHS 5543	Educational Theories and Psychology	3
MHS 5544	Curriculum and Instruction in Health Care	3
MHS 5545	Assessment and Evaluation in Health Care	3
MHS 5546	Health Care Finance	3
<b>Practical Courses (10 credits)</b>		Credit Hours
MHS 5107	Internship	5
MHS 5207	Practicum	5

## Specialty Tracks in the Master of Health Science Program

The M.H.Sc Program offers four specialty tracks: sports medicine, higher education, health law, and forensic investigative technology. The internship and practicum must be completed in the specialty areas. There are no electives in the specialty tracks.

### Sports Medicine Track Curriculum

Core Courses (14 credits)	Credit Hours
MHS 5001 APA Writing Seminar	2
MHS 5205 Writing for Medical Publication	3
MHS 5501 Epidemiology and Biostatistics	3
MHS 5510 Research Methods	3
MHS 5521 Ethical Issues in Health Care	3

Specialty Courses (12 credits)	Credit Hours
MHS 5211 Contemporary Issues in Nutrition	3
MHS 5801 Applied Anatomy for Kinesiology	3
MHS 5802 Sports Injury Rehabilitation Principles	3
MHS 5810 Certified Strength and Conditioning Specialist Preparation	3

Practical Courses (10 credits)	Credit Hours
MHS 5107 Internship	5
MHS 5207 Practicum	5

### Higher Education Track Curriculum

Core Courses (14 credits)	Credit Hours
MHS 5001 APA Writing Seminar	2
MHS 5205 Writing for Medical Publication	3
MHS 5501 Epidemiology and Biostatistics	3
MHS 5510 Research Methods	3
MHS 5521 Ethical Issues in Health Care	3

Specialty Courses (12 credits)	Credit Hours
MHS 5542 Health Care Education	3
MHS 5543 Educational Theories and Psychology	3
MHS 5544 Curriculum and Instruction in Health Care	3
MHS 5545 Assessment and Evaluation in Health Care	3

Practical Courses (10 credits)	Credit Hours
MHS 5107 Internship	5
MHS 5207 Practicum	5

## Health Law Track Curriculum

This concentration is offered through a partnership with the NSU Shepard Broad Law Center. **Students in this track should consider themselves in a locked-step schedule.** For the health law concentration, one residential institute is required on the main campus. This summer institute is one–two days long.

<b>Core Courses (14 credits)</b>	Credit Hours
MHS 5001 APA Writing Seminar	2
MHS 5205 Writing for Medical Publication	3
MHS 5501 Epidemiology and Biostatistics	3
MHS 5510 Research Methods	3
MHS 5543 Principles and Practice of Health Care Management	3

### Specialty Courses

(12 credits offered through the Shepard Broad Law Center)	Credit Hours
MHL 1020 Legal Research Methods and Reasoning**	4
MHL 1060 Tort and Contract Law	3
MHL 2030 Risk Management	2
MHL 1030 Administrative Law	2
MHL 1040 Legal and Ethical Issues in Health Care	2
MHL 1090 Law Accreditation/Licensing	2
OR	
MHL 1080 Law of Patients Rights and Advocacy	2
MHL 2020 Legal Negotiation	2

<b>Practical Courses (10 credits)</b>	Credit Hours
MHS 5107 Internship	5
MHS 5207 Practicum	5

\*\* includes a 1-credit, on-campus institute



## Forensic Investigative Technology

This track will provide specialization training in the burgeoning field of forensic investigation. Students will be exposed to investigative and analysis techniques used during criminal investigations. Beginning in the spring of 2008, M.H.Sc. distance students will have the option of completing electives or a concentration in Forensic Investigative Technology. Completing this specialty track requires 39 credits, as detailed below. **All courses are delivered and organized as distance learning.**

Core Courses (14 credits)		Credit Hours
MHS 5001	APA Writing Seminar	2
MHS 5205	Writing for Medical Publication	3
MHS 5501	Epidemiology and Biostatistics	3
MHS 5510	Research Methods	3
MHS 5521	Ethical Issues in Health Care	3

Specialty Courses (15 credits)*		Credit Hours
MHS 5611	Firearms, Fingerprints, and Other Impression Evidence	3
MHS 5612	Forensic Analysis of Trace and Drug Evidence	3
MHS 5613	Crime Scene	3
MHS 5614	Technology That Revolutionized Criminal Investigations	3
MHS 5615	Overview of Crime Laboratory Management	3

\*Courses are cross-listed with Criminal Justice Institute courses CJI 6111, CJI 6112, CJI 6113, CJI 6114, and CJI 6115.

Practical Courses (10 credits)		Credit Hours
MHS 5107	Internship	5
MHS 5207	Practicum	5

## Concentration for Recognition

In order to gain recognition in the Forensic Investigative Technology concentration of the M.H.Sc. program, the student must complete all five specialty courses for 15 total hours. Those completing the concentration will be recognized with appropriate credentials. If you have any questions of how this may apply to your M.H.Sc. completion, contact the program or your academic adviser for assistance.

## Leadership in Health Care Curriculum

This track will provide specialization training to meet the increasing demand for qualified leaders in the health care industry's growing field of leadership in health care. Beginning in the winter of 2010, M.H.Sc. distance students will have the option of completing electives or a concentration in Leadership in Health Care. Completing this specialty track requires 36 credits, as detailed below.

Core Courses (11 credits)	Credit Hours
MHS 5001 APA Writing Seminar	2
MHS 5205 Medical Writing for Publication	3
MHS 5510 Research Methods	3
MHS 5521 Ethical Issues in Health Care	3

Specialty Courses (15 credits)	Credit Hours
MHS 5530 Principles of Management in Health Care	3
MHS 5541 Health Care Systems and Conflict	3
MHS 5546 Health Care Finance	3
MHS 5535 Issues in Health Care Leadership	3
MHS 5537 Health Care Leadership QA/RM	3

Practical Courses (10 credits)	Credit Hours
MHS 5107 Internship	5
MHS 5207 Practicum	5

## Concentration for Recognition

In order to gain recognition in the Leadership in Health Care concentration of the M.H.Sc. program, the student must complete all five specialty courses for 15 total hours. Those completing the concentration will be recognized as such with appropriate credentials. If you have any questions of how this may apply to your M.H.Sc. completion, contact the program or your academic adviser for assistance.

# Master of Health Science Course Descriptions

## Didactic Core Component Courses

### Required Courses

#### MHS 5001—APA Writing Seminar

This seminar is designed to introduce students the APA 5 writing style. They will be guided by an instructor through the main components of an APA-style academic paper as well as internship and practicum reports. (2 credits)

#### MHS 5205—

#### Writing for Medical Publication

Study and review of quality medical writing techniques, issues, and procedures with emphasis on cultivating personal style and content. Focus will be on writing for peer and evidence-based publications. (3 credits)

#### MHS 5501—

#### Epidemiology and Biostatistics

The ability to understand the conceptual and practical aspects of biostatistics and epidemiology in health care is critical to understanding research and analyzing population data about disease. This survey course will improve the ability of the student to understand and apply these concepts. (3 credits)

#### MHS 5510—Research Methods

This course is designed to enable participants to develop skills in reading and critically evaluating published research by using the scientific model. The advantages and disadvantages of quantitative and qualitative research methods will be compared and contrasted. Research articles will be collaboratively analyzed to develop an appreciation of potential methodological problems and their implications for evidence-based professional practice. (3 credits)

#### MHS 5521—

#### Ethical Issues in Health Care

The student will examine the ethical issues that confront health care providers and patients. The medical scientific, moral, and socioeconomic bases of these issues and the decision-making processes that providers and patients engage in are analyzed. Topics will include informed and voluntary consent, the role of institutional review boards, euthanasia, the allocation of scarce resources. (3 credits)

#### MHS 5530—Principles and Practice of Management in Health Care

This course will discuss the various principles of management and its associated issues as they relate to the modern health care professional. The course will explore topics such as concepts of organizational management, decision making, strategic planning, resource management and allocation, conflict, and the concept of power. (3 credits)

## Elective Courses

#### MHS 5103—Principles of Advanced Life Support

Introduction to the accepted principles of the advanced life support measures used in adult medical, traumatic, and pediatric emergencies. Includes a review of the most common emergency situations encountered and provides hands-on practical training that will assist the clinician in developing the skills required to stabilize patients with life-threatening conditions. (3 credits)

### **MHS 5112—Bioterrorism and Weapons of Mass Destruction**

Students will review the effects of warfare and bioterrorism on populations, with emphasis on low-intensity conflict and dispersion of chemical and biological weapons in populated areas. Discussions will be devoted to the ecological, sociological, environmental, and general health effects. (3 credits)

### **MHS 5211— Contemporary Issues in Nutrition**

Covers a variety of general concepts and contemporary discussions in the area of nutrition as it applies to personal health. Many of the concepts learned in this course can be applied to the patient counseling and advisement health care professionals are asked to perform. (3 credits)

### **MHS 5400—Directed Studies**

This course provides the opportunity for students to explore a special topic of interest under the direction of a faculty member. Arrangements are made directly with the appropriate faculty member and the program director. Topic exploration is governed by the needs of the program and the educational goals of the student. Possible topics involve clinical and nonclinical aspects of the practice of medicine in the United States. (1–9 credits)

### **MHS 5535—Issues in Health Care Leadership**

This course requires the student to solve a simulated problem facing a simulated health care organization, addressing its impact on all aspects of the health care institution. Students will describe their leadership philosophy based on recognized leadership theory and how this will play a role in achieving an effective solution to

the proposed problem. The course will employ interactive technology to disseminate information on the weekly evolution of the simulated problem. The course culminates in a detailed analysis of the problem, which includes proposed solutions for corrective and preventive measures, potential intended and unintended consequences, and evidence of the student's leadership philosophy. (3 credits)

### **MHS 5537—Health Care Leadership Quality Assurance/Risk Management**

The student will examine health care quality assurance and risk management in the United States and the methods that are utilized to achieve improvements in health care organizations. Upon completion of this course, the student will be prepared to implement continuous quality improvement and performance improvement in management and performance systems by interpreting and understanding of data available to devise, generate, and apply quality performance improvement programs. (3 credits)

### **MHS 5541— Health Care Systems and Conflict**

This introductory course will assist learners to blend conflict-resolution theories, models, and skills into realistic strategies that can be used in a health care setting. The attitudes, knowledge, and skills from this course can be applied to those who deliver, receive, and manage health care. The strategies will be applicable to working with diverse populations, including people with different cultural backgrounds, genders, personalities, positions of power, and agendas. Types

of negotiation strategies in order to move toward a collaborative situation will also be addressed. (3 credits)

**MHS 5542—  
Health Care Education**

This course explores the various theories and applications of adult education in the practice of training, preprofessional education, and postprofessional education of medical personnel. Critical analysis of the different methods of teaching and training health care professionals is accomplished through discussion, research, investigation, journal development, and assignments. (3 credits)

**MHS 5543—Educational  
Theories and Psychology**

This course explores the history and evolution of educational theories and their role in the development of curriculum and instruction related to health care education. (3 credits)

**MHS 5544—Curriculum and  
Instruction in Health Care**

Using the principles of curriculum development and related research, students will develop a plan for a unit of instruction for a health care course that includes a need assessment, use of resources, implementation specification, material development, and assessment of instructional effectiveness. (3 credits)

**MHS 5545—Assessment and  
Evaluation in Health Care**

This course provides an overview of student and program evaluation and assessment methods in health care education. This course will consider multiple assessment models used in clinical settings, from traditional written assessments to alternative assessment methods

such as OSCEs, portfolios, and simulated patients. Students will develop an evaluation/assessment plan tailored to their professional situations. (3 credits)

**MHS 5546—Health Care Finance**

This course introduces the fundamental theory and concepts of health care finance, focusing on relevant applications to a wide variety of health care settings. Emphasis will be placed on the understanding of key issues in order to provide the tools necessary for clinicians to function within a health care environment. Concentration is on managerial, rather than production, accounting perspective. Major topics include principles of accounting, budgeting, analysis of financial statements, activity-based costing, responsibility accounting, and provider payment and reimbursement systems. The student will be required to prepare a formal paper on a health care finance topic. (3 credits)

**MHS 5801—  
Applied Anatomy for Kinesiology**

This course will address medical terminology and anatomy as they pertain to the kinesiology of each joint. The course lays the foundation for understanding the relevant anatomical and physical biomechanics of sports. (3 credits)

**MHS 5802—Sports Injury  
Rehabilitation Principles**

This course will use the knowledge of biomechanics to understand the nature of traumatic and overuse injuries in athletes. Rehabilitation concepts as well as specific programs for athletes will be covered. (3 credits)

### **MHS 5810—Certified Strength and Conditioning Specialist Preparation**

This course is a review of the material and preparation necessary for this national certification examination. CPR required prior to registration. (3 credits)

### **MHL 1020—Legal Research Methods and Reasoning**

The law is never static. Coupled with its ever-increasing role in the governance of health care institutions and health care practitioners, this truism means that health care practitioners and administrators may need to obtain, review, and apply newly issued laws or legal decisions in their day-to-day activities. This course will enable students to find the law, to read and understand legal statutes and regulations, and to understand the analytic process lawmakers and lawyers use (4 credits)

### **MHL 1060—Tort and Contract Law**

This course provides a detailed introduction to the legal principles and major concepts of tort law and contract law, focusing on legal claims and disputes in the health care context. **Prerequisite:** MHL 1020 (3 credits)

### **MHL 2030—Risk Management**

This course focuses on the legal importance of risk management programs for health care institutions. In doing so, it examines the keys to organizing and implementing successful risk management programs. It also focuses on considerations for developing effective risk management programs, evaluating them, and addressing specific risk areas, including those arising in managed care and integrated health care delivery systems. **Prerequisite:** MHL 1020 (2 credits)

### **MHL 1030—Administrative Law**

This course explores the role of administrative law in health care and the effects of federalism and constitutional issues in that context. Students will review the sources of law for health care providers (institutions, organizations, and individuals). In doing so, they will chart the overlapping, and sometimes conflicting, roles of federal and state legal regulation and study the implications and effects of the various types of laws that govern the provision of health care—administrative agency regulations, constitutional provisions, statutes, and court decisions. (2 credits)

### **MHL 1040—Legal and Ethical Issues in Health Care**

This course examines how the law has affected health care ethics by exploring the principles of ethics for health care providers; the ways in which these ethical principles are reflected in the law; and the legal, ethical, and policy aspects of issues affecting health care providers. Students will analyze situations arising in the health care context and will consider issues relating to both individual and institutional health care providers' ethics. (2 credits)

### **MHL 1090—Law Accreditation/Licensing**

This course provides a detailed examination of the legal aspects of two credentialing concepts—accreditation and licensure—in both the individual health care practitioner setting and the institutional setting. Students will examine the primary goal of these concepts (i.e., protecting the public), how accreditation differs from licensure, and how they interrelate. **Prerequisite:** MHL 1020 (2 credits)

### **MHL 1080—Law of Patients Rights and Advocacy**

Over the last century, the law governing medicine has seen a shift from paternalism to respect for patients as the decision makers. Beginning with the development of the bedrock legal principles of informed consent, this course will examine the legal aspects of the patients' rights movements and will trace the status of patients' legal abilities to control their treatment. Part of the course will be devoted to the existence of, substance of, and reasons for patients' rights statutes specific to hospital and nursing home settings. **Prerequisite:** MHL 1020 (2 credits)

### **MHL 2020—Legal Negotiation**

This course seeks to familiarize students with the various ways in which their legal counsel will attempt to resolve disputes on their behalf. Lawyers, of course, may litigate to resolve disputes, but far more often, they choose negotiation, arbitration, and mediation. Students in this course will have the opportunity to review, discuss, and experiment with some of the skills their lawyers will be using on their behalf. They will come to appreciate the legal issues that can affect such nonlitigation techniques. Attention will also be paid to the legal mechanisms by which parties to disputes are more and more often being forced into mediation or arbitration. **Prerequisite:** MHL 1020 (2 credits)

### **MHS 5611—Firearms, Fingerprints, and Other Impression Evidence**

This course will provide students with a broad overview of the impression evidence discipline in forensic science.

Topics discussed will include firearms and tool mark examination and microscopy, footwear and tire track examination, and latent fingerprints. Current courtroom challenges such as Daubert issues related to impression evidence will also be discussed. Students will be evaluated on the concepts learned based on practical exercises, tests, a final exam, and a research paper. (3 credits)

### **MHS 5612—Forensic Analysis of Trace and Drug Evidence**

This course will be divided into two sections: trace evidence and drugs. In the first segment, the course will cover the different drugs of abuse, the controlled substances act, dependency, and the forensic analysis of these samples. The trace evidence segment will include basic microscopy, fibers, paint, glass, fractures, hairs, explosives, and arson. Concepts will be solidified via case studies. (3 credits)

### **MHS 5613—Crime Scene**

This course will provide students with an in-depth understanding of the various steps to processing a crime scene. These will include scene documentation, evidence collection and preservation, and interpretation. In addition, scene safety and current courtroom challenges will be discussed. (3 credits)

### **MHS 5614—Technology That Revolutionized Criminal Investigations**

This course will provide students with a survey of the field of forensic genetics in an understandable manner. Topics will include presumptive testing, a history of serological analyses, and the beginning of the era of

DNA technology including RFLP and AMPFLP analysis. Newer methods of typing such as Short Tandem Repeat (STR), Y-chromosome STR, SNP analysis, mitochondrial sequencing, and mini-STRs will be explored. Case studies and examples of these methods will be examined and investigated empirically. This course is an invaluable tool for criminal investigators, attorneys, and those students planning to work in the forensic genetics field. (3 credits)

### **MHS 5615—Overview of Crime Laboratory Management**

A review of process management, work flow, and future growth will be discussed. This course will provide students with a survey of manpower, quality assurance, safety, and budgeting issues, as well as what job requirements are needed to perform various jobs from crime scene detective to DNA analyst. Accreditation, certification, and outside review of laboratory performance will be explored. The C.S.I. effect and its impact on the modern forensic laboratory will be examined. The competing interests of case analysis, prosecution, and investigation will be detailed. (3 credits)

## **Practical Components**

### **MHS 5107—Internship**

The student will complete 80 hours of internship in an area of interest within a health care organization, outside of their regular places of employment. The final product of this internship is an in-depth SWOT analysis of the unit or health care organization. The internship site requires prior M.H.Sc faculty approval. (5 credits)

### **MHS 5207—Practicum**

The practicum is a cumulating experience for M.H.Sc. students. Under supervision of an M.H.Sc. faculty adviser, students will develop community-based health promotion and disease prevention interventions with underserved and/or nontraditional populations. (5 credits)

## **M.H.Sc.—Anesthesiologist Assistant, Fort Lauderdale**

Anesthesiologist Assistants (AAs), also known as anesthetists, are highly educated and skilled allied health professionals who work under the supervision of physician anesthesiologists to develop and implement anesthesia care plans. AAs work exclusively within the anesthesia care team environment as described by the American Society of Anesthesiologists (ASA). AAs possess a premedical background and a baccalaureate degree, and also complete a comprehensive didactic and clinical program at the graduate level. AAs are trained extensively in the delivery and maintenance of quality anesthesia care as well as advanced patient monitoring techniques. The goal of AA education is to nurture the transformation of qualified student applicants into competent health care practitioners who aspire to practice in the anesthesia care team.

The 27-month AA course of study consists of an intensive academic and didactic program that will prepare the student to function within the anesthesia care team. The students will get an extensive clinical training experience that will consist of a minimum of 2,500 clinical hours that



encompass all aspects of anesthesia care for the surgical patient. Upon completion of the course of study, students will have earned a master of health science degree from NSU.

Students will be trained in the newly constructed, 6,000-square-foot AA facilities. The state-of-the-art facilities contain a mock operating room, which will house the latest Meti-Man anesthesia simulator, a laboratory with a mock postoperative care unit/intensive care unit, a lecture hall, a student break area, and anesthesia faculty member offices.

The first year of study focuses on the foundations of anesthesia practice through classroom, mock operating room scenarios and studies, and laboratory work. Clinical experience during the first year will increase as the year progresses. The senior year (semesters 5, 6, and 7) will consist of clinical rotations assigned in two-week and four-week intervals. During the senior year, clinical rotations are full time and involve all specialty areas in anesthesia, including general surgery, pediatrics, obstetrics and gynecology, otolaryngology, orthopedics, neurosurgery, ophthalmology, genitourinary surgery, vascular surgery, cardiac surgery, thoracic surgery, transplantation, and trauma. Clinical rotations include days, evenings, nights, weekends, and on-call—depending upon the rotation.

Nova Southeastern University's M.H.Sc.—Anesthesiologist Assistant specialization will prepare the student for the national certification exam administered by the National Board of Medical Examiners under the auspices of the National Commission for the

Certification of Anesthesiologist Assistants. The certification process involves successfully completing the Certifying Examination for Anesthesiologist Assistants for initial certification, registration of continuing medical education credits every two years, and successful completion of the Examination for Continued Demonstration of Qualifications every six years.

### **Accreditation**

The Master of Health Science—Anesthesiologist Assistant course of study at NSU is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP: 1361 Park Street, Clearwater, Florida 33756, 727-210-2350).

Nova Southeastern University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097, Telephone number: 404-679-4501) to award associate's, bachelor's, master's, educational specialist, and doctoral degrees.

### **Mission**

The mission of the M.H.Sc.—Anesthesiologist Assistant is to prepare students for lifelong learning and leadership roles that will benefit the health care community. The educational process will be committed to training and educating competent anesthetists who will embrace the anesthesia care team to provide safe, quality, and compassionate anesthesia care for all degrees of illness for the surgical patient.

## Vision

The M.H.Sc.—Anesthesiologist Assistant at Nova Southeastern University will provide state-of-the-art educational facilities and environment, which will allow anesthesiologist assistant students to cultivate into health care providers who are driven by compassion and guided by science to provide the best and safest patient care. It will be locally, nationally, and internationally recognized as an authority and primary source for anesthesiologist assistant information and services related to promoting the practice of delivering safe and quality anesthesia as a member of the anesthesia care team. The faculty members and students will be recognized as leaders within the profession through our collective service to the American Academy of Anesthesiologist Assistants (AAAA) and other professional organizations.

## Admissions Requirements

Prospective M.H.Sc.—Anesthesiologist Assistant students are selected by the Committee on Admissions (COA), which considers the overall qualities of the applicant. Areas of consideration include interpersonal skills, personal motivation, knowledge and understanding of the AA profession and the anesthesia care team, academic performance and level of achievement, life experiences, and recommendations. Personal interviews are offered to the most qualified applicants to assess interpersonal and communication skills, altruistic attitude, maturity, and commitment to the AA profession and anesthesia care team model.

### Other requirements include

1. baccalaureate degree from a nationally recognized and accredited college

or university, including above average performance in courses required in a premed curriculum (refer to the following required courses)

### Required

- English  
3 semester hours or 4 quarter hours
- General biology or Anatomy and physiology  
6 semester hours or 9 quarter hours
- General chemistry w/lab  
6 semester hours or 9 quarter hours
- Organic chemistry w/lab  
3 semester hours or 4 quarter hours
- Biochemistry  
3 semester hours or 4 quarter hours
- General physics w/lab  
6 semester hours or 9 quarter hours
- Calculus  
3 semester hours or 4 quarter hours

### Preferred but not required

- Cell and molecular biology  
1 semester hour
- Organic chemistry II  
a second semester

Note: A grade of C or better is required in all prerequisite classes.

2. official transcripts of all undergraduate and graduate coursework
3. a minimum cumulative GPA of 2.75 on a 4.0 grading scale; minimum GPA of 3.0 preferred
4. Graduate Record Examination (GRE) or Medical College Admissions Test (MCAT) scores (taken within the past five years) taken early enough for official scores to be received by admissions office by the supplemental application due date of February 28

The NSU code number is 5522. GRE information can be obtained from

[www.gre.org](http://www.gre.org). Information for the MCAT is at [www.aamc.org/students/mcat](http://www.aamc.org/students/mcat).

5. three letters of recommendation from people familiar with applicant's prior academic performance, potential, character, work habits, and suitability for graduate study leading into a career in clinical practice

6. at least eight hours of documented anesthesia exposure by observation in the operating room

7. summary of an article published in a current anesthesia journal

The applicant who has graduated from a college or university in a country where English is not the primary language, regardless of United States residency status, must obtain a minimum score of 600 on the written (or comparable score on the computerized) Test of English as a Foreign Language (TOEFL). An official set of scores must be sent to Nova Southeastern University directly from the Educational Testing Service in Princeton, New Jersey.

### Computer Requirements

All students are required to have a computer with the following minimum specifications:

- Pentium or AMD at 1.00 GHz or equivalent Macintosh processor
- 256 megabytes RAM
- video and monitor capable of 1024 x 768 resolution or better
- CD-ROM drive
- full duplex sound card and speakers
- Internet connection with Internet service provider (DSL, cable, or satellite highly recommended)
- 800 x 600 or higher resolution

- Windows XP or NT or MAC OS
- Microsoft Office 2000 with PowerPoint, Word, and Excel minimum
- printer capability

### Personal Interviews

Once your application is complete, the Committee on Admissions will decide whether or not your application is strong enough to warrant an invitation for a personal interview. Interviews are conducted at the Nova Southeastern University main location and are by invitation only. Interviews will be held from December through March. An invitation to interview is not a guarantee of admission. Notice of acceptance or action by the committee on admissions will be on a "rolling" or periodic schedule; therefore early completion of the application is in the best interest of the student.

### Tuition and Fees

Tuition for 2010–2011 (subject to change by the board of trustees without notice): \$28,889. A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.

1. **Acceptance Fee—\$500.** This fee is required to reserve the accepted applicant's place in the entering first-year class, but is not refundable in the event of a withdrawal. It is payable within two weeks of an applicant's acceptance.

2. **Deposit—\$250.** This is due February 15, under the same terms as the Acceptance Fee.

3. **Preregistration Fee—\$250.** This is due April 15, under the same terms as the Acceptance Fee.

The first semester's tuition and fees, less the \$1,000 previously paid, are due on or before registration day. Tuition for each subsequent semester is due on or before the appropriate registration day. Students will not be admitted until their financial obligations have been met. The financial ability of applicants to complete their training at the college is important because of the limited number of positions available in each class. Applicants should have specific plans for financing 27 months of professional education. This should include tuition, living expenses, books, equipment, and miscellaneous expenses. Each student is required to carry adequate personal medical and hospital insurance. Students may avail themselves of the hospitalization insurance plan obtainable through the university.

### Application Procedures

Applicants for admission must submit to EPS, or be responsible for submission of

1. a completed application form, along with a \$50, nonrefundable application fee, accepted July 15 to February 15
2. three evaluation forms—supplied in the application package or by request—from supervisors or colleagues, clinical or nonclinical
3. official transcripts sent directly from all previously attended undergraduate, professional, and graduate institutions
4. all coursework from international institution(s), if applicant attended or is a graduate of any international institution(s)

Applicant is responsible for contacting one of the evaluation services listed here. The official evaluation must be sent directly from the evaluation service to EPS.

World Education Services, Inc.  
P.O. Box 745  
Old Chelsea Station  
New York, New York 10113-0745  
(212) 966-6311

Josef Silny & Associates  
7101 SW 102nd Avenue  
Miami, Florida 33173  
(305) 273-1616  
(305) 273-1338 (fax)  
[www.jsilny.com](http://www.jsilny.com)

Educational Credential Evaluators  
P.O. Box 514070  
Milwaukee, Wisconsin 53203-3470  
(414) 289-3400  
[www.ece.org](http://www.ece.org)

5. complete resume or curriculum vitae
6. copies of national and professional certifications or licenses by a recognized certifying body (if applicable)
7. summary of an article published in a current anesthesia journal (form supplied in application package)
8. evidence of eight hours documented anesthesia exposure (form supplied in application packet)

The M.H.Sc. Committee on Admissions will not consider an application until all required fees, credentials, transcripts, and evaluations have been received by the EPS.

## **Requirements for Graduation**

In order to be eligible to graduate with the M.H.Sc.—Anesthesiologist Assistant degree, students must

- successfully complete all academic and clinical courses and degree requirements
- satisfactorily meet all financial and library obligations
- attend in person the rehearsal and commencement program at which the degree is conferred

## Anesthesiologist Assistant Curriculum—Fort Lauderdale

Start Date:	June 2011
Length:	27 months
Degree:	Master of Health Science—Anesthesiologist Assistant
Didactic:	14 months
Clinical:	13 months
Total Credit Hours:	132
Total Clinical Hours:	2,484

All courses with the MHS prefix will be taken online.

### Summer—Semester I (June–August)

Course #	Course Name	Credit Hours
ANES 5048	Medical Terminology	1
ANES 5621	Principle of Airway Management I	2
ANES 5081	Introduction to Clinical Anesthesia	2
ANES 5328	ECG for Anesthesiologist Assistants	1
ANES 5901	Anesthesia Principle and Practices I	2
ANA 5420	Anatomy	5
PHS 5400	Physiology	3
ANES 5301	Anesthesia Laboratory I	3
MHS 5001	APA Writing Seminar	2
<b>Total Credit Hours</b>		<b>19</b>

Basic Life Support Certification will be obtained during this semester.

### Fall—Semester II (September–December)

Course #	Course Name	Credit Hours
ANES 5002	Clinical Anesthesia II	2
ANES 5302	Anesthesia Laboratory II	3
ANES 5601	Applied Physiology for Anesthesia Practice I	3
ANES 5462	Pharmacology for Anesthesia I	2
ANES 5901	Anesthesia Principle and Practices I	2
ANES 5622	Principle of Airway Management II	2
MHS 5205	Writing for Medical Publication	3
MHS 5103	Principles of Life Support*	3
<b>Total Credit Hours</b>		<b>20</b>

Minimum clinical experience: 92 hours (anesthesia rotations in hospital)

\*Advanced Cardiac Lifesaving will be obtained during this semester.

### Winter—Semester III (January–May)

Course #	Course Name	Credit Hours
ANES 5003	Clinical Anesthesia III	3
ANES 5463	Pharmacology for Anesthesia II	2
ANES 5303	Anesthesia Laboratory III	3
ANES 5602	Applied Physiology for Anesthesia Practice II	2
ANES 5902	Anesthesia Principle and Practices II	2
ANES 5801	Instrumentation and Monitoring	2
MHS 5510	Research Methods	3
MHS 5400	Directed Studies in Anesthesia I	3

**Total Credit Hours** 20

Minimum clinical experience: 150 hours. (anesthesia rotations in hospital)

### Summer—Semester IV (June–August)

Course #	Course Name	Credit Hours
ANES 5004	Clinical Anesthesia IV	5
ANES 5304	Anesthesia Laboratory IV	3
MHS 5107	Internship	5
MHS 5401	Directed Studies in Anesthesia II	3

**Total Credit Hours** 18

Minimum clinical experience: 312 hours. (anesthesia rotations in hospital)

\*Pediatric and Advanced Cardiac Lifesaving will be obtained during this semester.

### Clinical Year, Fall—Semester V (September–December)

Course #	Course Name	Credit Hours
MHS 5207	Practicum—Senior Seminar in Anesthesia I*	5
ANES 6110	Anesthesia Review I	1
ANES 6001	Clinical Anesthesia V	13
MHS 5501	Epidemiology and Biostatistics	3

**Total Credit Hours** 22

Minimum clinical experience: 675 hours. (anesthesia rotations in hospital)

\*MHS 5207 will be completed over fall, winter, and summer semesters.

### Clinical Year, Winter—Semester VI (January–May)

Course #	Course Name	Credit Hours
ANES 6120	Anesthesia Review II	1
ANES 6002	Clinical Anesthesia VI	15
MHS 5521	Ethical Issues in Health Care	3

**Total Credit Hours 19**

Minimum clinical experience: 760 hours. (anesthesia rotations in hospital)

### Clinical Year, Summer—Semester VII (June–August)

Course #	Course Name	Credit Hours
ANES 6130	Anesthesia Review III	1
ANES 6003	Clinical Anesthesia VII	11
MHS 5530	Principles of Health Care Management	3

**Total Credit Hours 14**

Minimum clinical experience: 495 hours. (anesthesia rotations in hospital)

Curriculum is subject to change as directed by the department.



## **Anesthesiologist Assistant—Fort Lauderdale Course Descriptions**

### **ANES 5001—Clinical Anesthesia I**

Developmental skills and foundations of the clinical practice of anesthesia are gained through one-on-one supervised instruction in the operating room and other ancillary anesthetizing locations. Participation and responsibilities increase through the year as knowledge and skills develop. **(1 credit)**

### **ANES 5002—Clinical Anesthesia II**

This course is a continuation of ANES 5001. Developmental skills and foundations of the clinical practice of anesthesia are gained through one-on-one supervised instruction in the operating room and other ancillary anesthetizing locations. Participation and responsibilities increase through the year as knowledge and skills develop. **(3 credits)**

### **ANES 5003—Clinical Anesthesia III**

This course is a continuation of ANES 5002. Developmental skills and foundations of the clinical practice of anesthesia are gained through one-on-one supervised instruction in the operating room and other ancillary anesthetizing locations. Participation and responsibilities increase through the year as knowledge and skills develop. **(5 credits)**

### **ANES 5004—Clinical Anesthesia IV**

This course is a continuation of ANES 5003. Developmental skills and founda-

tions of the clinical practice of anesthesia are gained through one-on-one supervised instruction in the operating room and other ancillary anesthetizing locations. Participation and responsibilities increase through the year as knowledge and skills develop. **(3 credits)**

### **ANES 5621—Principle of Airway Management I**

This course will provide an opportunity to learn and appreciate structure, function, pathophysiology, disease, and management of the human airway. The basic and advanced principles of elective and emergent airway management, including equipment and techniques, will be covered. Examination, recognition, techniques, and management involved in pediatric and adult difficult airways will be discussed. Course will correlate with laboratory work for a better understanding and use of bag/mask ventilation, oral and nasal airways, oral and nasal intubation techniques, lightwands, fiberoptic intubations, double lumen tubes, surgical airways, and application of laryngeal mask airway. **(2 credits)**

### **ANES 5622—Principle of Airway Management II**

This course is a continuation of ANES 5621. This course will provide an opportunity to learn and appreciate structure, function, pathophysiology, disease, and management of the human airway. The basic and advanced principles of elective and emergent airway management, including equipment and techniques, will be covered. Examination, recognition, techniques, and management involved in pediatric and adult difficult airways

will be discussed. Course will correlate with laboratory work for a better understanding and use of bag/mask ventilation, oral and nasal airways, oral and nasal intubation techniques, lightwands, fiberoptic intubations, double lumen tubes, surgical airways, and application of laryngeal mask airway. (2 credits)

#### **ANES 5048—Medical Terminology**

This is a self-study, online course. Use of medical language for appropriate and accurate communication in patient care. Course includes terminology and symbols, word formation, body systems and disease terms, abbreviations, and procedures. (1 credit)

#### **ANES 5076—Physics of Anesthesia Practice**

Basic physical principles and processes applied to the practice of anesthesia. Includes dimensional analysis; work, energy, and power; gas laws; fluid mechanics; heat transfer; vaporization; solubility, diffusion, and osmosis; fires and explosions; laser and X-ray radiation; principles of electrical circuit theory used to model anesthesia equipment, physiologic systems, and time constants. (1 credit)

#### **ANES 5081—Introduction to Clinical Anesthesia**

Prepares and educates the student to work within the anesthesia care team. Introduction to induction, maintenance, and emergence from anesthesia. Includes history of anesthesia, types of anesthesia, universal precautions and infection control, layout of the operating room, sterile fields and techniques, interacting with patients, starting intravenous catheters and arterial can-

nulae, obtaining arterial blood samples, and application of ASA-standard monitors. Students will use an anesthesia simulator to gain the basic knowledge and usage of monitors. (2 credits)

#### **ANES 5301—Anesthesia Laboratory I**

A state-of-the-art laboratory and anesthesia simulator will prepare the student for the usage and complete understanding of the monitors and practice of anesthesia. Students will apply their didactic knowledge to scenarios on the anesthesia simulator. Patient modalities—such as pulse oximetry, capnography, and blood pressure monitoring systems—are explored. Laboratory experiments will develop students' understanding of anesthesia delivery systems, various types of breathing circuits, fresh gas flow effect, theory of dilutional methods of cardiac output monitoring, and relations between mean circulatory filling pressures and central venous pressure. A vascular sonography lab will allow a unique and comprehensive understanding of transesophageal and transthoracic echocardiography, cerebrovascular testing, and venous and peripheral arterial testing. (1 credit)

#### **ANES 5302—Anesthesia Laboratory II**

This course is a continuation of ANES 5301. A state-of-the-art laboratory and anesthesia simulator will prepare the student for the usage and complete understanding of the monitors and practice of anesthesia. Students will apply their didactic knowledge to scenarios on the anesthesia simulator. Patient modalities—such as pulse oximetry, capnography, and blood pressure monitoring systems—are

explored. Laboratory experiments will develop students' understanding of anesthesia delivery systems, various types of breathing circuits, fresh gas flow effect, theory of dilutional methods of cardiac output monitoring, and relations between mean circulatory filling pressures and central venous pressure. A vascular sonography lab will allow a unique and comprehensive understanding of transesophageal and transthoracic echocardiography, cerebrovascular testing, and venous and peripheral arterial testing. (2 credits)

### **ANES 5303—Anesthesia Laboratory III**

This course is a continuation of ANES 5302. A state-of-the-art laboratory and anesthesia simulator will prepare the student for the usage and complete understanding of the monitors and practice of anesthesia. Students will apply their didactic knowledge to scenarios on the anesthesia simulator. Patient modalities—such as pulse oximetry, capnography, and blood pressure monitoring systems—are explored. Laboratory experiments will develop students' understanding of anesthesia delivery systems, various types of breathing circuits, fresh gas flow effect, theory of dilutional methods of cardiac output monitoring, and relations between mean circulatory filling pressures and central venous pressure. A vascular sonography lab will allow a unique and comprehensive understanding of transesophageal and transthoracic echocardiography, cerebrovascular testing, and venous and peripheral arterial testing. (1 credit)

### **ANES 5304—Anesthesia Laboratory IV**

This course is a continuation of ANES

5303. A state-of-the-art laboratory and anesthesia simulator will prepare the student for the usage and complete understanding of the monitors and practice of anesthesia. Students will apply their didactic knowledge to scenarios on the anesthesia simulator. Patient modalities—such as pulse oximetry, capnography, and blood pressure monitoring systems—are explored. Laboratory experiments will develop students' understanding of anesthesia delivery systems, various types of breathing circuits, fresh gas flow effect, theory of dilutional methods of cardiac output monitoring, and relations between mean circulatory filling pressures and central venous pressure. A vascular sonography lab will allow a unique and comprehensive understanding of transesophageal and transthoracic echocardiography, cerebrovascular testing, and venous and peripheral arterial testing. (2 credits)

### **ANES 5328—ECG for Anesthesiologist Assistants**

Basic and advanced ECG interpretation using simulators to understand an overview of heart anatomy, function, and neurophysiology. (1 credit)

### **PHS 5400—Physiology**

Clinically relevant physiologic principles of the major organ systems covered in Anatomy. Pathological changes that occur in the human physiology in the disease process. (3 credits)

### **ANA 5420—Anatomy**

Gross structures of the human body. Integrates topographic and radiographic anatomy to stress the application and importance of clinical anatomy. Develops the knowledge of the human anatomy necessary for the practice of the profession. (5 credits)

**ANES 5462—Pharmacology for Anesthesia I**

Emphasizes drugs specifically related to the practice of anesthesia, including inhaled anesthetics, opioids, barbiturates, benzodiazepines, anticholinesterases and anticholinergics, neuromuscular blockers, adrenergic agonists and antagonists, nonsteroidal anti-inflammatory drugs, antidysrhythmics, calcium channel blockers, diuretics, anticoagulants, antihistamines, and antimicrobials. (2 credits)

**ANES 5463—Pharmacology for Anesthesia II**

This course is a continuation of ANES 5462. Emphasizes drugs specifically related to the practice of anesthesia, including inhaled anesthetics, opioids, barbiturates, benzodiazepines, anticholinesterases and anticholinergics, neuromuscular blockers, adrenergic agonists and antagonists, nonsteroidal anti-inflammatory drugs, antidysrhythmics, calcium channel blockers, diuretics, anticoagulants, antihistamines, and antimicrobials. (2 credits)

**ANES 5601—Applied Physiology for Anesthesia Practice I**

Pathophysiology in a systems approach—cardiovascular, pulmonary, renal, neuro, metabolic, and endocrine. Emphasizing hemodynamics, Starling forces, pulmonary responses, renal hemodynamics, temperature regulation, blood gases/pH, and maternal and fetal physiology. Also emphasizes those systems that affect evaluation and planning for anesthesia and that are affected by the administration of anesthesia. (3 credits)

**ANES 5602—Applied Physiology for Anesthesia Practice II**

This course is a continuation of ANES 5601. Pathophysiology in a systems approach—cardiovascular, pulmonary, renal, neuro, metabolic, and endocrine. Emphasizing hemodynamics, Starling forces, pulmonary responses, renal hemodynamics, temperature regulation, blood gases/pH, and maternal and fetal physiology. Also emphasizes those systems that affect evaluation and planning for anesthesia and that are affected by the administration of anesthesia. (2 credits)

**ANES 5801—Principles of Instrumentation and Patient Monitoring I**

Practical principles, application, and interpretation of various monitoring modalities including ECG, invasive and noninvasive blood pressure, oximetry, cardiac output, respiratory gas analysis, respiration, and instrumentation as they pertain to anesthesia practice. Also includes intraoperative neurophysiology monitoring, temperature, renal function, coagulation/hemostasis, neuromuscular junction, transesophageal and transthoracic echocardiography, cerebrovascular testing, and venous and peripheral arterial testing. (2 credits)

**ANES 5802—Principles of Instrumentation and Patient Monitoring II**

This course is a continuation of ANES 5801. Practical principles, application, and interpretation of various monitoring modalities including ECG, invasive and noninvasive blood pressure, oximetry, cardiac output, respiratory gas analysis, respiration, and instrumentation as they pertain

to anesthesia practice. Also includes intraoperative neurophysiology monitoring, temperature, renal function, coagulation/hemostasis, neuromuscular junction, transthoracic echocardiography, cerebrovascular testing, and venous and peripheral arterial testing. (1 credit)

### **ANES 5901—Anesthesia Principle and Practices I**

Principles involved in the formulation of anesthetic plans based upon data obtained during the preoperative evaluation. Includes the formulation and practices of different anesthetic plans and techniques as related to specific surgical procedures and pathophysiology. (2 credits)

### **ANES 5902—Anesthesia Principle and Practices II**

This course is a continuation of ANES 5901. Principles involved in the formulation of anesthetic plans based upon data obtained during the preoperative evaluation. Includes the formulation and practices of different anesthetic plans and techniques as related to specific surgical procedures and pathophysiology. (3 credits)

### **ANES 6001—Clinical Anesthesia V**

Encompasses the student's clinical experience in required rotations through all sub-specialty areas of anesthesia. Clinical rotations are assigned in two-week and four-week intervals and will require being on-call during some nights and weekends. Clinical practice of anesthesia is gained through one-on-one supervised instruction in the operating room and other ancillary anesthetizing locations. Monthly required readings are assigned. Monthly comprehensive examinations

are administered. Each course's grade is composed of clinical evaluations and comprehensive examination scores. (13 credits)

### **ANES 6002—Clinical Anesthesia VI**

This course is a continuation of ANES 6001. Encompasses the student's clinical experience in required rotations through all sub-specialty areas of anesthesia. Clinical rotations are assigned in two-week and four-week intervals and will require being on-call during some nights and weekends. Clinical practice of anesthesia is gained through one-on-one supervised instruction in the operating room and other ancillary anesthetizing locations. Monthly required readings are assigned. Monthly comprehensive examinations are administered. Each course's grade is composed of clinical evaluations and comprehensive examination scores. (15 credits)

### **ANES 6003—Clinical Anesthesia VII**

This course is a continuation of ANES 6002. Encompasses the student's clinical experience in required rotations through all sub-specialty areas of anesthesia. Clinical rotations are assigned in two-week and four-week intervals and will require being on-call during some nights and weekends. Clinical practice of anesthesia is gained through one-on-one supervised instruction in the operating room and other ancillary anesthetizing locations. Monthly required readings are assigned. Monthly comprehensive examinations are administered. Each course's grade is composed of clinical evaluations and comprehensive examination scores. (11 credits)

### **ANES 6110—Anesthesia Review I**

Lectures, required readings, and discussions with faculty members, visiting faculty members, and current residents on clinical and research topics. Includes correlation of case management and complications. (1 credit)

### **ANES 6120—Anesthesia Review II**

This course is a continuation of ANES 6110. Lectures, required readings, and discussions with faculty members, visiting faculty members, and current residents on clinical and research topics. Includes correlation of case management and complications. (1 credit)

### **ANES 6130—Anesthesia Review III**

This course is a continuation of ANES 6120. Lectures, required readings, and discussions with faculty members, visiting faculty members, and current residents on clinical and research topics. Includes correlation of case management and complications. (1 credit)

### **ANES 6200—Clinical Practice in Anesthesia**

This course is a continuation of ANES 6130. Developed for the student who requires additional clinical training. Developmental skills and foundations of the clinical aspects of anesthesia are gained through one-on-one supervised instruction in the operating room and other ancillary anesthetizing locations. Participation and responsibilities increase through the year as knowledge and skills develop. (12 credits)

### **MHS 5001—APA Writing Seminar**

This seminar is designed to introduce students to the APA 5 writing style. They will be guided by an instruc-

tor through the main components of an APA-style academic paper as well as internship and practicum reports. (2 credits)

### **MHS 5103—Principles of Life Support**

Provides for the certification in Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS). Courses will focus on assessment and management of adults, children, and infants in a cardiopulmonary crisis. Pediatric and Advanced Cardiac Lifesaving will be obtained during this semester. (3 credits)

### **MHS 5107—Internship**

The student will complete 80 hours of internship in an area of interest within a health care organization, outside of his or her regular place of employment. The final product of this internship is an in-depth SWOT analysis of the unit or health care organization. The internship site requires prior M.H.Sc. faculty approval. (5 credits)

### **MHS 5205—Writing for Medical Publications**

Study and review of quality medical writing techniques, issues, and procedures with emphasis on cultivating personal style and content. Focus will be on writing for peer- and evidence-based publications. (3 credits)

### **MHS 5207—Practicum**

The practicum is a cumulating experience for M.H.Sc. students. Under supervision of an M.H.Sc. faculty adviser, students will develop community-based health promotion and disease prevention interventions with underserved and/or nontraditional populations. (5 credits)

### **MHS 5501—Epidemiology and Biostatistics**

The ability to understand the conceptual and practical aspects of biostatistics and epidemiology in health care is critical to understanding research and analyzing population data about disease. This survey course will improve the ability of the student to understand and apply these concepts. (3 credits)

### **MHS 5510—Research Methods**

This course is designed to enable participants to develop skills in reading and critically evaluating published research by using the scientific model. The advantages and disadvantages of quantitative and qualitative research methods will be compared and contrasted. Research articles will be collaboratively analyzed to develop an appreciation of potential methodological problems and their implications for evidence-based professional practice. (3 credits)

### **MHS 5400—Directed Studies in Anesthesia I**

This course provides the opportunity for students to explore a special topic of interest under the direction of a faculty member. Arrangements are made directly with the appropriate faculty member and the program director. Topic exploration is governed by the needs of the program and the educational goals of the student. Possible topics involve clinical and nonclinical aspects of the practice of medicine in the United States. (3 credits)

### **MHS 5401 – Directed Studies in Anesthesia II**

This course is a continuation of MHS 5400. (3 credits)

### **MHS 5521—Ethical Issues in Health Care**

The student will examine the ethical issues that confront health care providers and patients. The medical scientific, moral, and socioeconomic bases of these issues and the decision-making processes that providers and patients engage in are analyzed. Topics will include informed and voluntary consent, the role of institutional review boards, euthanasia, and the allocation of scarce resources. (3 credits)

### **MHS 5530—Principles and Practice of Management in Health Care**

The course will discuss the various principles of management and its associated issues as they relate to the modern health care professional. The course will explore topics such as concepts of organizational management, decision making, strategic planning, resource management and allocation, conflict, and the concept of power. (3 credits)

For information about the NSU AA course of study, or to request an AA admissions application packet, please contact the NSU admissions office at:

Nova Southeastern University  
Health Professions Division  
Anesthesiologist Assistant  
3200 South University Drive  
Fort Lauderdale, Florida 33328-2018

(954) 262-1101 or 800-356-0026, ext. 21101  
[www.nova.edu/mhs/anesthesia](http://www.nova.edu/mhs/anesthesia)

## **M.H.Sc.—Anesthesiologist Assistant, Tampa**

Anesthesiologist Assistants (AAs), also known as anesthetists, are highly educated and skilled allied health professionals who work under the supervision of physician anesthesiologists to develop and implement anesthesia care plans. AAs work exclusively within the anesthesia care team environment as described by the American Society of Anesthesiologists (ASA). AAs possess a premedical background and a baccalaureate degree, and also complete a comprehensive didactic and clinical program at the graduate level. AAs are trained extensively in the delivery and maintenance of quality anesthesia care as well as advanced patient monitoring techniques. The goal of AA education is to nurture the transformation of qualified student applicants into competent health care practitioners who aspire to practice in the anesthesia care team.

The 27-month AA course of study consists of an intensive academic and didactic program that will prepare the student to function within the anesthesia care team. The students will get an extensive clinical training experience that will consist of a minimum of 2,500 clinical hours that encompass all aspects of anesthesia care for the surgical patient. Upon completion of the course of study, students will have earned a master of health science degree from NSU.

The first year of study focuses on the foundations of anesthesia practice through classroom, mock operating room scenarios and studies, and laboratory work. Clinical experience during the first year will increase as

the year progresses. The senior year (semesters 5, 6, and 7) will consist of clinical rotations assigned in two-week and four-week intervals. During the senior year, clinical rotations are full time and involve all specialty areas in anesthesia, including general surgery, pediatrics, obstetrics and gynecology, otolaryngology, orthopedics, neurosurgery, ophthalmology, genitourinary surgery, vascular surgery, cardiac surgery, thoracic surgery, transplantation, and trauma. Clinical rotations include days, evenings, nights, weekends, and on-call—depending upon the rotation.

Nova Southeastern University's M.H.Sc.—Anesthesiologist Assistant specialization will prepare the student for the national certification exam administered by the National Board of Medical Examiners under the auspices of the National Commission for the Certification of Anesthesiologist Assistants. The certification process involves successfully completing the Certifying Examination for Anesthesiologist Assistants for initial certification, registration of continuing medical education credits every two years, and successful completion of the Examination for Continued Demonstration of Qualifications every six years.

### **Accreditation**

The Master of Health Science—Anesthesiologist Assistant course of study at NSU is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP: 1361 Park Street, Clearwater, Florida 33756, 727-210-2350).



Nova Southeastern University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097, Telephone number: 404-679-4501) to award associate's, bachelor's, master's, educational specialist, and doctoral degrees.

### **Mission**

The mission of the M.H.Sc.—Anesthesiologist Assistant is to prepare students for lifelong learning and leadership roles that will benefit the health care community. The educational process will be committed to training and educating competent anesthetists who will embrace the anesthesia care team to provide safe, quality, and compassionate anesthesia care for all degrees of illness for the surgical patient.

### **Vision**

The M.H.Sc.—Anesthesiologist Assistant at Nova Southeastern University will provide state-of-the-art educational facilities and environment, which will allow anesthesiologist assistant students to cultivate into health care providers who are driven by compassion and guided by science to provide the best and safest patient care. It will be locally, nationally, and internationally recognized as an authority and primary source for anesthesiologist assistant information and services related to promoting the practice of delivering safe and quality anesthesia as a member of the anesthesia care team. The faculty members and students will be recognized as leaders within the profession through our collective service to the American Academy of

Anesthesiologist Assistants (AAAA) and other professional organizations.

### **Admissions Requirements**

Prospective M.H.Sc.—Anesthesiologist Assistant students are selected by the Committee on Admissions (COA), which considers the overall qualities of the applicant. Areas of consideration include interpersonal skills, personal motivation, knowledge and understanding of the AA profession and the anesthesia care team, academic performance and level of achievement, life experiences, and recommendations. Personal interviews are offered to the most qualified applicants to assess interpersonal and communication skills, altruistic attitude, maturity, and commitment to the AA profession and anesthesia care team model.

### **Other requirements include**

1. baccalaureate degree from a nationally recognized and accredited college or university, including above average performance in courses required in a premed curriculum (refer to the following required courses)

### **Required**

- English  
3 semester hours or 4 quarter hours
- General biology or Anatomy and physiology  
6 semester hours or 9 quarter hours
- General chemistry w/lab  
6 semester hours or 9 quarter hours
- Organic chemistry w/lab  
3 semester hours or 4 quarter hours
- Biochemistry  
3 semester hours or 4 quarter hours
- General physics w/lab  
6 semester hours or 9 quarter hours
- Calculus  
3 semester hours or 4 quarter hours

### Preferred but not required

- Cell and molecular biology  
1 semester hour
- Organic chemistry II  
a second semester

Note: A grade of C or better is required in all prerequisite classes.

2. official transcripts of all undergraduate and graduate coursework
3. a minimum cumulative GPA of 2.75 on a 4.0 grading scale; minimum GPA of 3.0 preferred
4. Graduate Record Examination (GRE) or Medical College Admissions Test (MCAT) scores (taken within the past five years) taken early enough for official scores to be received by admissions office by the supplemental application due date of February 28

The NSU code number is 5522. GRE information can be obtained from [www.gre.org](http://www.gre.org). Information for the MCAT is at [www.aamc.org/students/mcat](http://www.aamc.org/students/mcat).

5. three letters of recommendation from people familiar with applicant's prior academic performance, potential, character, work habits, and suitability for graduate study leading into a career in clinical practice
6. at least eight hours of documented anesthesia exposure by observation in the operating room
7. summary of an article published in a current anesthesia journal

The applicant who has graduated from a college or university in a country where English is not the primary language, regardless of United States residency status, must obtain a minimum score of 600 on the written (or comparable score on the comput-

erized) Test of English as a Foreign Language (TOEFL). An official set of scores must be sent to Nova Southeastern University directly from the Educational Testing Service in Princeton, New Jersey.

### Computer Requirements

All students are required to have a computer with the following minimum specifications:

- Pentium or AMD at 1.00 GHz or equivalent Macintosh processor
- 256 megabytes RAM
- video and monitor capable of 1024 x 768 resolution or better
- CD-ROM drive
- full duplex sound card and speakers
- Internet connection with Internet service provider (DSL, cable, or satellite highly recommended)
- 800 x 600 or higher resolution
- Windows XP or NT or MAC OS
- Microsoft Office 2000 with PowerPoint, Word, and Excel minimum
- printer capability

### Personal Interviews

Once your application is complete, the Committee on Admissions will decide whether or not your application is strong enough to warrant an invitation for a personal interview. Interviews are conducted at the Nova Southeastern University Tampa location and are by invitation only. Interviews will be held from December through March. An invitation to interview is not a guarantee of admission. Notice of acceptance or action by the committee on admissions will be on a "rolling" or periodic schedule; therefore early completion of the application is in the best interest of the student.

## Tuition and Fees

Tuition for 2010–2011 (subject to change by the board of trustees without notice): \$28,889. A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.

1. **Acceptance Fee—\$500.** This fee is required to reserve the accepted applicant's place in the entering first-year class, but is not refundable in the event of a withdrawal. It is payable within two weeks of an applicant's acceptance.
2. **Deposit—\$250.** This is due February 15, under the same terms as the Acceptance Fee.
3. **Preregistration Fee—\$250.** This is due April 15, under the same terms as the Acceptance Fee.

The first semester's tuition and fees, less the \$1,000 previously paid, are due on or before registration day. Tuition for each subsequent semester is due on or before the appropriate registration day. Students will not be admitted until their financial obligations have been met. The financial ability of applicants to complete their training at the college is important because of the limited number of positions available in each class. Applicants should have specific plans for financing 27 months of professional education. This should include tuition, living expenses, books, equipment, and miscellaneous expenses. Each student is required to carry adequate personal medical and hospital insurance. Students may avail themselves of the hospitalization insurance plan obtainable through the university.

## Application Procedures

Applicants for admission must submit to EPS, or be responsible for submission of

1. a completed application form, along with a \$50, nonrefundable application fee, accepted July 15 to February 15
2. three evaluation forms—supplied in the application package or by request—from supervisors or colleagues, clinical or nonclinical
3. official transcripts sent directly from all previously attended undergraduate, professional, and graduate institutions
4. all coursework from international institution(s), if applicant attended or is a graduate of any international institution(s)

Applicant is responsible for contacting one of the evaluation services listed here. The official evaluation must be sent directly from the evaluation service to EPS.

World Education Services, Inc.  
P.O. Box 745  
Old Chelsea Station  
New York, New York 10113-0745  
(212) 966-6311

Josef Silny & Associates  
7101 SW 102nd Avenue  
Miami, Florida 33173  
(305) 273-1616  
(305) 273-1338 (fax)  
[www.jsilny.com](http://www.jsilny.com)

Educational Credential Evaluators  
P.O. Box 514070  
Milwaukee, Wisconsin 53203-3470  
(414) 289-3400  
[www.ece.org](http://www.ece.org)

5. complete resume or curriculum vitae

6. copies of national and professional certifications or licenses by a recognized certifying body (if applicable)
7. summary of an article published in a current anesthesia journal (form supplied in application package)
8. evidence of eight hours documented anesthesia exposure (form supplied in application packet)

The M.H.Sc. Committee on Admissions will not consider an application until all required fees, credentials, transcripts, and evaluations have been received by the EPS.

### **Requirements for Graduation**

In order to be eligible to graduate with the M.H.Sc.—Anesthesiologist Assistant degree, students must

- successfully complete all academic and clinical courses and degree requirements
- satisfactorily meet all financial and library obligations
- attend in person the rehearsal and commencement program at which the degree is conferred

## Anesthesiologist Assistant Curriculum—Tampa

### Summer—Semester I

Course #	Course Name	Credit Hours
ANET 5048	Medical Terminology	1
ANET 5621	Principle of Airway Management I	2
ANET 5081	Introduction to Clinical Anesthesia	3
ANET 5328	ECG for Anesthesiologist Assistants	1
ANAT 5420	Anatomy	5
PHST 5400	Physiology	3
ANET 5301	Anesthesia Laboratory I	3
MHS 5001	APA Writing Seminar	2
<b>Total Credit Hours</b>		<b>20</b>

### Fall—Semester II

Course #	Course Name	Credit Hours
ANET 5302	Anesthesia Laboratory II	4
ANET 5601	Applied Physiology for Anesthesia Practice I	3
ANET 5462	Pharmacology for Anesthesia I	2
ANET 5901	Anesthesia Principle and Practices I	2
ANET 5622	Principles of Airway Management II	2
MHS 5205	Writing for Medical Publication	3
ANET 5801	Principles of Instrumentation and Patient Monitoring	3
<b>Total Credit Hours</b>		<b>19</b>

### Winter—Semester III

Course #	Course Name	Credit Hours
ANET 5001	Clinical Anesthesia and Seminar I	2
ANET 5463	Pharmacology for Anesthesia II	2
ANET 5303	Anesthesia Laboratory III	4
ANET 5602	Applied Physiology for Anesthesia Practice II	2
ANET 5902	Anesthesia Principle and Practices II	2
MHS 5103	Principles of Life Support	3
MHS 5510	Research Methods	3
MHS 5400	Directed Studies in Anesthesia I	3
<b>Total Credit Hours</b>		<b>21</b>

### Summer—Semester IV

Course #	Course Name	Credit Hours
ANET 5002	Clinical Anesthesia II	5
ANET 5304	Anesthesia Laboratory IV	4
ANET 5903	Anesthesia Principles and Practices III	2
MHS 5107	Internship	5
MHS 5402	Directed Studies in Anesthesia II	3
<b>Total Credit Hours</b>		<b>19</b>

### Clinical Year, Fall—Semester V

Course #	Course Name	Credit Hours
MHS 5207	Practicum I*	5
ANET 6110	Anesthesia Review I	1
ANET 6001	Clinical Anesthesia III	13
MHS 5501	Epidemiology and Biostatistics	3
<b>Total Credit Hours</b>		<b>22</b>

\*MHS 5207 will be completed over fall, winter, and summer semesters.

### Clinical Year, Winter—Semester VI

Course #	Course Name	Credit Hours
ANET 6120	Anesthesia Review II	1
ANET 6002	Clinical Anesthesia IV	15
MHS 5521	Ethical Issues in Health Care	3
<b>Total Credit Hours</b>		<b>19</b>

### Clinical Year, Summer—Semester VII

Course #	Course Name	Credit Hours
ANET 6003	Clinical Anesthesia V	12
MHS 5530	Principles of Health Care Management	3
<b>Total Credit Hours</b>		<b>15</b>

## **Anesthesiologist Assistant— Tampa Course Descriptions**

### **ANET 5001—Clinical Anesthesia I**

Developmental skills and foundations of the clinical practice of anesthesia are gained through one-on-one supervised instruction in the operating room and other ancillary anesthetizing locations. Participation and responsibilities increase through the year as knowledge and skills develop. (1 credit)

### **ANET 5002—Clinical Anesthesia II**

This course is a continuation of ANET 5001. Developmental skills and foundations of the clinical practice of anesthesia are gained through one-on-one supervised instruction in the operating room and other ancillary anesthetizing locations. Participation and responsibilities increase through the year as knowledge and skills develop. (3 credits)

### **ANET 5003—Clinical Anesthesia III**

This course is a continuation of ANET 5002. Developmental skills and foundations of the clinical practice of anesthesia are gained through one-on-one supervised instruction in the operating room and other ancillary anesthetizing locations. Participation and responsibilities increase through the year as knowledge and skills develop. (5 credits)

### **ANET 5004—Clinical Anesthesia IV**

This course is a continuation of ANET 5003. Developmental skills and founda-

tions of the clinical practice of anesthesia are gained through one-on-one supervised instruction in the operating room and other ancillary anesthetizing locations. Participation and responsibilities increase through the year as knowledge and skills develop. (3 credits)

### **ANET 5621—Principle of Airway Management I**

This course will provide an opportunity to learn and appreciate structure, function, pathophysiology, disease, and management of the human airway. The basic and advanced principles of elective and emergent airway management, including equipment and techniques, will be covered. Examination, recognition, techniques, and management involved in pediatric and adult difficult airways will be discussed. Course will correlate with laboratory work for a better understanding and use of bag/mask ventilation, oral and nasal airways, oral and nasal intubation techniques, lightwands, fiberoptic intubations, double lumen tubes, surgical airways, and application of laryngeal mask airway. (2 credits)

### **ANET 5622—Principle of Airway Management II**

This course is a continuation of ANET 5621. This course will provide an opportunity to learn and appreciate structure, function, pathophysiology, disease, and management of the human airway. The basic and advanced principles of elective and emergent airway management, including equipment and techniques, will be covered. Examination, recognition, techniques, and management involved

in pediatric and adult difficult airways will be discussed. Course will correlate with laboratory work for a better understanding and use of bag/mask ventilation, oral and nasal airways, oral and nasal intubation techniques, lightwands, fiberoptic intubations, double lumen tubes, surgical airways, and application of laryngeal mask airway. (2 credits)

### **ANET 5048—Medical Terminology**

This is a self-study, online course. Use of medical language for appropriate and accurate communication in patient care. Course includes terminology and symbols, word formation, body systems and disease terms, abbreviations, and procedures. (1 credit)

### **ANET 5076—Physics of Anesthesia Practice**

Basic physical principles and processes applied to the practice of anesthesia. Includes dimensional analysis; work, energy, and power; gas laws; fluid mechanics; heat transfer; vaporization; solubility, diffusion, and osmosis; fires and explosions; laser and X-ray radiation; principles of electrical circuit theory used to model anesthesia equipment, physiologic systems, and time constants. (1 credit)

### **ANET 5081—Introduction to Clinical Anesthesia**

Prepares and educates the student to work within the anesthesia care team. Introduction to induction, maintenance, and emergence from anesthesia. Includes history of anesthesia, types of anesthesia, universal precautions and infection control, layout of the operating room, sterile fields and techniques, interacting with patients, starting

intravenous catheters and arterial canulae, obtaining arterial blood samples, and application of ASA-standard monitors. Students will use an anesthesia simulator to gain the basic knowledge and usage of monitors. (2 credits)

### **ANET 5301—Anesthesia Laboratory I**

A state-of-the-art laboratory and anesthesia simulator will prepare the student for the usage and complete understanding of the monitors and practice of anesthesia. Students will apply their didactic knowledge to scenarios on the anesthesia simulator. Patient modalities—such as pulse oximetry, capnography, and blood pressure monitoring systems—are explored. Laboratory experiments will develop students' understanding of anesthesia delivery systems, various types of breathing circuits, fresh gas flow effect, theory of dilutional methods of cardiac output monitoring, and relations between mean circulatory filling pressures and central venous pressure. A vascular sonography lab will allow a unique and comprehensive understanding of transesophageal and transthoracic echocardiography, cerebrovascular testing, and venous and peripheral arterial testing. (1 credit)

### **ANET 5302—Anesthesia Laboratory II**

This course is a continuation of ANET 5301. A state-of-the-art laboratory and anesthesia simulator will prepare the student for the usage and complete understanding of the monitors and practice of anesthesia. Students will apply their didactic knowledge to scenarios on the anesthesia simulator. Patient modalities—such as pulse



oximetry, capnography, and blood pressure monitoring systems—are explored. Laboratory experiments will develop students' understanding of anesthesia delivery systems, various types of breathing circuits, fresh gas flow effect, theory of dilutional methods of cardiac output monitoring, and relations between mean circulatory filling pressures and central venous pressure. A vascular sonography lab will allow a unique and comprehensive understanding of transesophageal and transthoracic echocardiography, cerebrovascular testing, and venous and peripheral arterial testing. (2 credits)

### **ANET 5303—Anesthesia Laboratory III**

This course is a continuation of ANET 5302. A state-of-the-art laboratory and anesthesia simulator will prepare the student for the usage and complete understanding of the monitors and practice of anesthesia. Students will apply their didactic knowledge to scenarios on the anesthesia simulator. Patient modalities—such as pulse oximetry, capnography, and blood pressure monitoring systems—are explored. Laboratory experiments will develop students' understanding of anesthesia delivery systems, various types of breathing circuits, fresh gas flow effect, theory of dilutional methods of cardiac output monitoring, and relations between mean circulatory filling pressures and central venous pressure. A vascular sonography lab will allow a unique and comprehensive understanding of transesophageal and transthoracic echocardiography, cerebrovascular testing, and venous and peripheral arterial testing. (1 credit)

### **ANET 5304—Anesthesia Laboratory IV**

This course is a continuation of ANET 5303. A state-of-the-art laboratory and anesthesia simulator will prepare the student for the usage and complete understanding of the monitors and practice of anesthesia. Students will apply their didactic knowledge to scenarios on the anesthesia simulator. Patient modalities—such as pulse oximetry, capnography, and blood pressure monitoring systems—are explored. Laboratory experiments will develop students' understanding of anesthesia delivery systems, various types of breathing circuits, fresh gas flow effect, theory of dilutional methods of cardiac output monitoring, and relations between mean circulatory filling pressures and central venous pressure. A vascular sonography lab will allow a unique and comprehensive understanding of transesophageal and transthoracic echocardiography, cerebrovascular testing, and venous and peripheral arterial testing. (2 credits)

### **ANET 5328—ECG for Anesthesiologist Assistants**

Basic and advanced ECG interpretation using simulators to understand an overview of heart anatomy, function, and neurophysiology. (1 credit)

### **PHST 5400—Physiology**

Clinically relevant physiologic principles of the major organ systems covered in Anatomy. Pathological changes that occur in the human physiology in the disease process. (3 credits)

### **ANAT 5420—Anatomy**

Gross structures of the human body. Integrates topographic and radiographic anatomy to stress the application and importance of clinical

anatomy. Develops the knowledge of the human anatomy necessary for the practice of the profession. (5 credits)

### **ANET 5462—Pharmacology for Anesthesia I**

Emphasizes drugs specifically related to the practice of anesthesia, including inhaled anesthetics, opioids, barbiturates, benzodiazepines, anticholinesterases and anticholinergics, neuromuscular blockers, adrenergic agonists and antagonists, nonsteroidal anti-inflammatory drugs, antidysrhythmics, calcium channel blockers, diuretics, anticoagulants, antihistamines, and antimicrobials. (2 credits)

### **ANET 5463—Pharmacology for Anesthesia II**

This course is a continuation of ANET 5462. Emphasizes drugs specifically related to the practice of anesthesia, including inhaled anesthetics, opioids, barbiturates, benzodiazepines, anticholinesterases and anticholinergics, neuromuscular blockers, adrenergic agonists and antagonists, nonsteroidal anti-inflammatory drugs, antidysrhythmics, calcium channel blockers, diuretics, anticoagulants, antihistamines, and antimicrobials. (2 credits)

### **ANET 5601—Applied Physiology for Anesthesia Practice I**

Pathophysiology in a systems approach—cardiovascular, pulmonary, renal, neuro, metabolic, and endocrine. Emphasizing hemodynamics, Starling forces, pulmonary responses, renal hemodynamics, temperature regulation, blood gases/pH, and maternal and fetal physiology. Also emphasizes those systems that affect evaluation

and planning for anesthesia and that are affected by the administration of anesthesia. (3 credits)

### **ANET 5602—Applied Physiology for Anesthesia Practice II**

This course is a continuation of ANET 5601. Pathophysiology in a systems approach—cardiovascular, pulmonary, renal, neuro, metabolic, and endocrine. Emphasizing hemodynamics, Starling forces, pulmonary responses, renal hemodynamics, temperature regulation, blood gases/pH, and maternal and fetal physiology. Also emphasizes those systems that affect evaluation and planning for anesthesia and that are affected by the administration of anesthesia. (2 credits)

### **ANET 5801—Principles of Instrumentation and Patient Monitoring I**

Practical principles, application, and interpretation of various monitoring modalities including ECG, invasive and noninvasive blood pressure, oximetry, cardiac output, respiratory gas analysis, respiration, and instrumentation as they pertain to anesthesia practice. Also includes intraoperative neurophysiology monitoring, temperature, renal function, coagulation/hemostasis, neuromuscular junction, transesophageal and transthoracic echocardiography, cerebrovascular testing, and venous and peripheral arterial testing. (2 credits)

### **ANET 5802—Principles of Instrumentation and Patient Monitoring II**

This course is a continuation of ANET 5801. Practical principles, application, and interpretation of various monitoring modalities including ECG, invasive

and noninvasive blood pressure, oximetry, cardiac output, respiratory gas analysis, respiration, and instrumentation as they pertain to anesthesia practice. Also includes intraoperative neurophysiology monitoring, temperature, renal function, coagulation/hemostasis, neuromuscular junction, transesophageal and transthoracic echocardiography, cerebrovascular testing, and venous and peripheral arterial testing. (1 credit)

#### **ANET 5901—Anesthesia Principle and Practices I**

Principles involved in the formulation of anesthetic plans based upon data obtained during the preoperative evaluation. Includes the formulation and practices of different anesthetic plans and techniques as related to specific surgical procedures and pathophysiology. (2 credits)

#### **ANET 5902—Anesthesia Principle and Practices II**

This course is a continuation of ANET 5901. Principles involved in the formulation of anesthetic plans based upon data obtained during the preoperative evaluation. Includes the formulation and practices of different anesthetic plans and techniques as related to specific surgical procedures and pathophysiology. (3 credits)

#### **ANET 6001—Clinical Anesthesia V**

Encompasses the student's clinical experience in required rotations through all sub-specialty areas of anesthesia. Clinical rotations are assigned in two-week and four-week intervals and will require being on-call during some nights and weekends. Clinical practice of anesthesia is gained through one-on-one supervised

instruction in the operating room and other ancillary anesthetizing locations. Monthly required readings are assigned. Monthly comprehensive examinations are administered. Each course's grade is composed of clinical evaluations and comprehensive examination scores. (13 credits)

#### **ANET 6002—Clinical Anesthesia VI**

This course is a continuation of ANET 6001. Encompasses the student's clinical experience in required rotations through all sub-specialty areas of anesthesia. Clinical rotations are assigned in two-week and four-week intervals and will require being on-call during some nights and weekends. Clinical practice of anesthesia is gained through one-on-one supervised instruction in the operating room and other ancillary anesthetizing locations. Monthly required readings are assigned. Monthly comprehensive examinations are administered. Each course's grade is composed of clinical evaluations and comprehensive examination scores. (15 credits)

#### **ANET 6003—Clinical Anesthesia VII**

This course is a continuation of ANET 6002. Encompasses the student's clinical experience in required rotations through all sub-specialty areas of anesthesia. Clinical rotations are assigned in two-week and four-week intervals and will require being on-call during some nights and weekends. Clinical practice of anesthesia is gained through one-on-one supervised instruction in the operating room and other ancillary anesthetizing locations. Monthly required readings are assigned. Monthly comprehensive examinations are administered. Each course's grade is

composed of clinical evaluations and comprehensive examination scores. (11 credits)

#### **ANET 6110—Anesthesia Review I**

Lectures, required readings, and discussions with faculty members, visiting faculty members, and current residents on clinical and research topics. Includes correlation of case management and complications. (1 credit)

#### **ANET 6120—Anesthesia Review II**

This course is a continuation of ANET 6110. Lectures, required readings, and discussions with faculty members, visiting faculty members, and current residents on clinical and research topics. Includes correlation of case management and complications. (1 credit)

#### **ANET 6130—Anesthesia Review III**

This course is a continuation of ANET 6120. Lectures, required readings, and discussions with faculty members, visiting faculty members, and current residents on clinical and research topics. Includes correlation of case management and complications. (1 credit)

#### **ANET 6200—Clinical Practice in Anesthesia**

This course is a continuation of ANET 6130. Developed for the student who requires additional clinical training. Developmental skills and foundations of the clinical aspects of anesthesia are gained through one-on-one supervised instruction in the operating room and other ancillary anesthetizing locations. Participation and responsibilities increase through the year as knowledge and skills develop. (12 credits)

#### **MHS 5001—APA Writing Seminar**

This seminar is designed to introduce students to the APA 5 writing style. They will be guided by an instructor through the main components of an APA-style academic paper as well as internship and practicum reports. (2 credits)

#### **MHS 5103—Principles of Life Support**

Provides for the certification in Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS). Courses will focus on assessment and management of adults, children, and infants in a cardiopulmonary crisis. Pediatric and Advanced Cardiac Lifesaving will be obtained during this semester. (3 credits)

#### **MHS 5107—Internship**

The student will complete 80 hours of internship in an area of interest within a health care organization, outside of his or her regular place of employment. The final product of this internship is an in-depth SWOT analysis of the unit or health care organization. The internship site requires prior M.H.Sc. faculty approval. (5 credits)

#### **MHS 5205—Writing for Medical Publications**

Study and review of quality medical writing techniques, issues, and procedures with emphasis on cultivating personal style and content. Focus will be on writing for peer- and evidence-based publications. (3 credits)

#### **MHS 5207—Practicum**

The practicum is a cumulating experience for M.H.Sc. students. Under supervision of an M.H.Sc. faculty adviser, students will develop

community-based health promotion and disease prevention interventions with underserved and/or nontraditional populations. (5 credits)

### **MHS 5501—Epidemiology and Biostatistics**

The ability to understand the conceptual and practical aspects of biostatistics and epidemiology in health care is critical to understanding research and analyzing population data about disease. This survey course will improve the ability of the student to understand and apply these concepts. (3 credits)

### **MHS 5510—Research Methods**

This course is designed to enable participants to develop skills in reading and critically evaluating published research by using the scientific model. The advantages and disadvantages of quantitative and qualitative research methods will be compared and contrasted. Research articles will be collaboratively analyzed to develop an appreciation of potential methodological problems and their implications for evidence-based professional practice. (3 credits)

### **MHS 5400—Directed Studies in Anesthesia I**

This course provides the opportunity for students to explore a special topic of interest under the direction of a faculty member. Arrangements are made directly with the appropriate faculty member and the program director. Topic exploration is governed by the needs of the program and the educational goals of the student. Possible topics involve clinical and nonclinical aspects of the practice of medicine in the United States. (3 credits)

### **MHS 5401 – Directed Studies in Anesthesia II**

This course is a continuation of MHS 5400. (3 credits)

### **MHS 5521—Ethical Issues in Health Care**

The student will examine the ethical issues that confront health care providers and patients. The medical scientific, moral, and socioeconomic bases of these issues and the decision-making processes that providers and patients engage in are analyzed. Topics will include informed and voluntary consent, the role of institutional review boards, euthanasia, and the allocation of scarce resources. (3 credits)

### **MHS 5530—Principles and Practice of Management in Health Care**

The course will discuss the various principles of management and its associated issues as they relate to the modern health care professional. The course will explore topics such as concepts of organizational management, decision making, strategic planning, resource management and allocation, conflict, and the concept of power. (3 credits)

For information about the NSU AA course of study, or to request an AA admissions application packet, please contact the NSU admissions office at:

Nova Southeastern University  
Health Professions Division  
Anesthesiologist Assistant  
3200 South University Drive  
Fort Lauderdale, Florida 33328-2018

(954) 262-1101 or 800-356-0026, ext. 21101  
[www.nova.edu/mhs/anesthesia](http://www.nova.edu/mhs/anesthesia)

## Sources of Additional Information

Links to non-NSU sites are provided for your convenience and do not constitute an endorsement.

For information on a career as an anesthesiologist assistant, contact:

American Academy of Anesthesiologist Assistants

2209 Dickens Road  
Richmond, Virginia 23230-0090  
email: [aaaa@societyhq.com](mailto:aaaa@societyhq.com).  
[www.anesthetist.org](http://www.anesthetist.org)

For information on the certification process for anesthesiologist assistants, contact:

National Commission for Certification of Anesthesiologist Assistants

1500 Sunday Drive, Suite 102  
Raleigh, North Carolina 27607  
[www.aa-nccaa.org](http://www.aa-nccaa.org)

For information about the anesthesia care team, contact:

American Society of Anesthesiologists

520 N. Northwest Highway  
Park Ridge, Illinois 60068-2573  
[www.asahq.org](http://www.asahq.org)

## Master of Health Science— Vascular Sonography (On-Campus, Entry-Level)

Diagnostic Medical Sonography (DMS) uses the properties of sound to image tissues and organs within the body. Vascular Sonography is a specialty of DMS, focusing on the assessment of all arteries and veins of the body (excluding those located in the heart).

Vascular sonographers are an important part of the medical team. Clinical settings using the skills and services

of vascular sonographers typically include imaging centers, radiology departments, and cardiology or vascular surgery offices. The demand for vascular sonographers is projected to increase primarily due to the aging of the population, as seniors are generally more prone to vascular problems.

The Master of Health Science—Vascular Sonography specialization at Nova Southeastern University is designed to train highly skilled and knowledgeable vascular technologists at a graduate level. Students will take master's degree-level online courses and will develop professor-monitored research projects for publication and/or presentation in their second year. This course of study will prepare graduates for leadership positions in research, clinical management, and education.

## Program Objectives

- to graduate competent vascular technologists who are qualified to perform a variety of standard and specialized diagnostic vascular procedures
- to ensure that graduates are qualified to take, and successfully pass, a national credentialing exam, from either the American Registry of Diagnostic Medical Sonography (ARDMS) or Cardiovascular Credentialing International (CCI)
- to prepare master's degree-level graduates for future leadership roles in vascular laboratories, research centers, and vascular centers
- to develop advanced academic and clinical skills, for pursuing research studies and publication in the field of vascular sonography

Upon successful completion of the Master of Health Science with a specialization in

Vascular Sonography, students are eligible to apply for admission to the Doctor of Health Science (D.H.Sc.) program. The D.H.Sc. program has a requirement for students to complete two one-week summer institutes.

### **Curriculum Overview**

The vascular sonography program includes on-campus lectures; extensive, hands-on ultrasound laboratory time; online courses; and a 12-month externship in a clinical vascular laboratory. The program starts in July with two online courses and is 26 months long. The successful graduate will earn a Master of Health Science degree with a specialization in Vascular Sonography. Students will take a combination of core courses in both the health science field and more focused vascular technology courses. A sample of core courses in the health sciences includes subjects such as Writing for Medical Publication, Epidemiology, Biostatistics, and Principles and Practice of Management in Health Care. Examples of vascular technology courses include Ultrasound Physics, Cerebrovascular Testing, Venous Testing, and Peripheral Arterial Testing. While on campus, the student will spend more than 300 hours in the Ultrasound Training Laboratory learning scanning skills and physiologic testing methods prior to the clinical externship experience.

The second year will focus almost entirely on clinical training for a minimum of 48 weeks, with a minimum of 35 hours per week, with hands-on experience in a vascular laboratory under the supervision of a registered vascular technologist. Students will be required to fulfill competencies outlined in the clinical syllabus. These

competencies include all aspects of vascular sonography training and professional development. In addition, four online courses are required during the senior year. In addition to the regular curriculum, the Master of Health Science student will work with a faculty member to design and implement a project, such as a case study, a presentation, or clinical research. Students in the master's degree track will have additional, directed courses (including directed studies in vascular ultrasound, a practicum, and an internship) during their clinical training.

Admission to the program requires the completion of a bachelor's degree, including a minimum of 3 credits in anatomy and physiology and 3 credits in general/mechanical physics. The core of the vascular sonography course of study includes 105 semester hours. The entire program requires a total of 105 semester hours for a student to graduate with a Master of Health Science—Vascular Sonography.

## **Accreditation, National Examinations, and Registry**

The Vascular Sonography course of study is accredited through the Commission on Accreditation of Allied Health Education Programs (CAAHEP) Joint Review Commission on Education in Diagnostic Medical Sonography (JRC-DMS). JRC-DMS, Address: 2025 Woodlane Drive, St. Paul, MN 55125-2998, Telephone: 651-731-1582, Web-site: [www.jrcdms.org](http://www.jrcdms.org). Amanda Glassing, Accreditation Manager, Email: [aglassing@jcahpo.org](mailto:aglassing@jcahpo.org), Telephone: 651-731-1582.

Graduates will be eligible to take the national registry examination administered by the American Registry of Diagnostic Medical Sonographers (ARDMS)

American Registry of Diagnostic  
Medical Sonographers (ARDMS)  
51 Monroe Street, Plaza East One,  
Rockville, Maryland 20850-2400

Tel: (301) 738-8401 or 800-541-9754

Fax: (301) 738-0312

## **Prerequisites**

Candidates for the Master of Health Science with a specialization in Vascular Sonography must have earned a bachelor's degree from a regionally accredited institution with a minimum GPA of 2.5 on a 4.0 scale. In addition, applicants for the master's degree must have completed college-level anatomy and physiology, as well as general or radiology physics, with a grade of C or better. It is also recommended, although not required, for the applicant to have completed Anatomy and Physiology II.

## **Admissions Requirements**

Prospective vascular sonography students are selected by the Department of Health Science Committee on Admissions through consideration of the overall qualities of the applicant. The program will admit individuals with diverse education, work, and life experiences who have a demonstrated capacity to pursue the course of study in vascular sonography. Areas of consideration include application content, academic record, letters of evaluation, and personal motivation.

## **Personal Interviews**

Once your application is complete, the Committee on Admissions will decide whether or not your application is strong enough to warrant an invitation for a personal interview. Interviews are conducted on the Nova Southeastern University main campus and are by invitation only. An invitation to interview is not a guarantee of admission. Notice of acceptance or action by the Committee on Admissions will be on a "rolling" or periodic schedule; therefore early completion of the application is in the best interest of the student. Final deadline for applications to be received by the admissions office is the first Friday in May

Admission to the program requires a bachelor's degree from a regionally accredited college or university with a minimum cumulative GPA of 2.5 on a 4.0 grading scale. All applicants must show evidence of computer skills through coursework or self-study prior to the end of the first term. Students may obtain instruction through the NSU Student Microcomputer Laboratory or other training facilities.



Upon receipt of the completed application, fees, credentials, and transcripts, the admissions officers and the College of Allied Health and Nursing will review all material for evidence of the proper education, training, and background to enter the M.H.Sc.—Vascular Sonography specialization.

## Application Procedures

Candidates for admission are responsible for the submission of

- completed application forms with \$50, nonrefundable application fees
- two letters of evaluation from individuals other than relatives, such as academic advisers, professors, clinical or nonclinical supervisors, or community associates
- official college, certificate, and/or diploma-based transcripts from all undergraduate and graduate institutions attended, sent directly from the institution
- copies of national and or state professional certification, licensure, or registration, if applicable
- resumes or curricula vitae
- evaluation of any coursework taken at a foreign institution for U.S. institutional equivalence, if applicable

Foreign coursework must be evaluated by one of the following services:

World Education Services  
P.O. Box 745  
Old Chelsea Station  
New York, New York 10113-0745  
(212) 966-6311  
[www.wes.org](http://www.wes.org)  
Josef Silny & Associates  
7101 SW 102nd Avenue  
Miami, Florida 33173  
(305) 273-1616

(305) 273-1338 fax  
[www.jsilny.com](http://www.jsilny.com)  
[info@jsilny.com](mailto:info@jsilny.com)

Educational Credential Evaluators  
P.O. Box 514070  
Milwaukee, Wisconsin 53203-3470  
(414) 289-3400  
[www.ece.org](http://www.ece.org)

The Office of Admissions for the M.H.Sc.—Vascular Sonography works on a rolling admissions basis. Applications are accepted year round. To ensure that your application receives prompt consideration, you should apply early.

All admissions material should be sent to the following address no later than the first Friday in May:

Nova Southeastern University  
Enrollment Processing Services (EPS)  
Attn: College of Allied Health  
and Nursing  
M.H.Sc.—Vascular Sonography  
Program  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida 33329-9905

The Department of Health Science Committee on Admissions will not consider an application until all required fees, credentials, transcripts, and test scores have been received by the Office of Admissions.

The university reserves the right to modify any requirements on an individual basis as deemed necessary by the dean of the College of Allied Health and Nursing. The college reserves the right, and the student, by his or her act of matriculation, concedes to the college the right to require his or her withdrawal any time the college deems it necessary to safeguard its standards of scholarship,

conduct, and compliance with regulations, or for such other reasons as are deemed appropriate.

The dean, department chair, and vascular sonography director reserve the right to require the student's withdrawal at any time for the above mentioned reasons.

### **Distance Education Support**

Students on clinical externships in vascular sonography must maintain Nova Southeastern University computer accounts, including email.

New students receive an orientation and extensive online technical support, online access, online tools and methods, and library resources. Online interactive learning methods involve Web pages to access course materials, announcements, the electronic library, and other information, plus a range of online activities that facilitate frequent student-professor interaction. Faculty members and students interact via online forums using threaded bulletin boards, chatrooms, and email. Students are able to submit assignments as email attachments, through the use of online forms sent directly to program instructors, fax to fax, fax to email, and through WebCT. Some online courses may include electronic classroom sessions.

Online students have online access to books, journal articles, microfiche, dissertations, index searches, catalog searches, and reference librarians. The online medical database collection at NSU is extensive and includes access to quality subscription services free of charge to students.

### **Tuition and Fees**

- \$50, nonrefundable application fee
- \$19,500 tuition for 2010–2011 academic year
- \$750 annual student fee
- \$500 acceptance fee
- \$250 deposit
- \$250 preregistration fee
- \$200 Sonography Principles and Instrumentation (SPI) Examination fee
- A graduation and diploma fee of \$225.

Students are responsible for purchasing any required textbooks, uniforms, white coats, and/or classroom materials. A \$125 vascular access fee is also required yearly. This fee is required to pay for background checks, drug testing (if required), affiliation agreements, and immunizations.

Applicants should have a specific plan for financing 26 months of professional education. This includes tuition, living expenses, books, equipment, and miscellaneous expenses. Each student is required to carry adequate personal medical and hospital insurance. Students may avail themselves of the hospital insurance plan through the university.

Tuition waivers and discounts for NSU students and staff and faculty members will be in accordance with published policy and administered through the dean of the College of Allied Health and Nursing. Tuition, fees, and payment schedules are subject to change without notice.

## **Requirements for Graduation**

To be eligible to receive the M.H.Sc. degree, students are required to

- complete the general education, major, and elective requirements as specified by the program at the time of admission, resulting in a minimum total of 105 semester hours
- attain a cumulative grade point average of 2.7 or higher
- submit a degree application form before completing registration for the last semester
- fulfill all obligations to the library, the student's program, and the bursar's office
- attend rehearsal and graduation ceremonies
- complete ARDMS Sonography Principles and Instrumentation (SPI) course by the end of the first year

## **Graduation with Honors**

A student graduating with a cumulative grade point average of 3.8 or higher who has completed at least 90 credits at NSU is eligible to receive the degree with distinction.

## **Computer Skills**

All applicants must show evidence of computer skills through course work or self-study prior to the end of the first term. Students may obtain instruction through the NSU Student Microcomputer Laboratory or other training facilities.

## Curriculum Outline

### Master of Health Science—Vascular Sonography

Required prior to matriculation (cannot be survey courses)

Courses	Semester Hours
English	3
Anatomy and Physiology I	3
Math	3
Physical/Human/Biological Sciences	6
Physics	3
Prerequisite Subtotal:	18

Required M.H.Sc. Courses	Semester Hours
MHS 5001 APA Writing Seminar	2
MHS 5521 Ethical Issues in Health Care	3
MHS 5205 Writing for Medical Publication	3
MHS 5510 Research Methods	3
MHS 5403 Directed Studies in Vascular Sonography I	3
MHS 5501 Epidemiology and Biostatistics	3
MHS 5404 Directed Studies in Vascular Sonography II	4
MHS 5530 Principles of Management	3
MHS 5107 Master's Degree Internship	5
MHS 5405 Directed Studies in Vascular Sonography III	2
MHS 5207 Practicum	5
BSV 3100 Ultrasound Physics I/Lab	3
PHS 4904 Advanced Anatomy for the Health Professional	4
BSV 3200 Ultrasound Physics Review	1
BSV 3210 Introduction to Diagnostic Medical Sonography	2
BSV 3300 Cerebrovascular Testing/Lab	4
BSV 3400 Venous Testing/Lab	4
BSV 3500 Peripheral Arterial Testing/Lab	5
BSV 3600 Abdominal Vascular Testing/Lab	5
FME 5105 Basic Life Support	1
BSV 3700 Clinical Preparation and Review	4
BSV 4500 Clinical Externship I (16 weeks)	12
BSV 4600 Clinical Externship II (16 weeks)	12
BSV 4700 Clinical Externship III (16 weeks)	12
Required M.H.Sc. Courses Subtotal	36

**Minimum Total Semester Hours Required: 105**

## **Master of Health Science— Vascular Sonography Course Descriptions**

### **BSV 3100—Ultrasound Physics I**

This course is designed to introduce the students to the fundamental principles of sound and ultrasound. Students will learn how sound is generated, transmitted, and reflected in soft-tissue. They will also learn the principles of Doppler, color Doppler, power Doppler, and spectral analysis. Finally, the students will review artifacts, ultrasound safety, and the bioeffects of ultrasound testing. (3 semester hours)

### **PHS 4904—Advanced Anatomy for the Health Professions**

This course is a survey of human physiology including functional anatomy. This course will be presented in an organ system approach and will cover cellular physiology, cardiovascular, renal, respiratory, gastrointestinal, endocrine, reproductive, and nervous systems. The course emphasizes the correlation between anatomy and function, clinical application, and uses of anatomical terminology. Students apply these concepts in the anatomy laboratory setting using resources such as cadaver dissection, radiographs, MRI, CT, and scans. (4 semester hours)

### **BSV 3200— Ultrasound Physics Review**

Ultrasound Physics Review is designed to integrate the principles of ultrasound with the theoretical and practical lessons provided in the previous and current sessions. Students will learn the fundamentals of image acquisition and optimization as they pertain to ultrasound physics. (1 semester hour)

### **BSV 3220—Introduction to Diagnostic Medical Sonography**

This course is designed as an introduction to diagnostic medical ultrasound and will provide the basis for the core courses in specific vascular exam modalities studied in the winter and summer terms. The course will, therefore, be primarily taught in the ultrasound training laboratory. It will focus on hands-on participation over lectures and will emphasize understanding of equipment, transducer manipulation, ergonomics, patient rapport, image production, and optimization. This course will also be strongly linked to the introduction to ultrasound physics course. (2 semester hours)

### **BSV 3300—Cerebrovascular Testing/Lab**

This course will review the cerebrovascular anatomy and physiology associated with cerebrovascular disease. The student will learn the scanning protocols for extra and intracranial cerebrovascular testing and the diagnostic criteria for assessing disease. The student will also review various diagnostic and treatment options for the patient. (5 semester hours)

### **BSV 3400—Venous Testing/Lab**

This course will review the venous anatomy and physiology associated with venous disease. The student will learn the scanning protocols for deep and superficial venous testing and the diagnostic criteria for assessing disease. The student will also review various diagnostic and treatment options for the patient. (4 semester hours)

### **BSV 3500—Peripheral Arterial Testing/Lab**

This course will review the peripheral arterial anatomy and physiology associ-

ated with the peripheral arterial system. The student will learn the scanning protocols for upper and lower extremity arterial testing and the diagnostic criteria for assessing disease. The student will also review various diagnostic and treatment options for the patient. **(4 semester hours)**

**BSV 3600—  
Abdominal Vascular Testing/Lab**

This course will review the abdominal anatomy and physiology associated with visceral vascular disease. The student will learn the scanning protocols for abdominal vascular testing and the diagnostic criteria for assessing disease. The student will also review various diagnostic and treatment options for the patient. **(5 semester hours)**

**FME 5105—Basic Life Support**

This American Heart Association-approved course leads to certification upon successful completion. **(1 semester hour)**

**BSV 3700—  
Clinical Preparation and Review**

Clinical Preparation and Review is a brief course to review general medical anatomy and physiology, terminology, treatment, and medications used in the treatment of vascular disease. It is designed to reinforce the nontechnical/ultrasound components of the training. This course is to ensure the student is well prepared for the clinical experience that will follow. **(1 semester hour)**

**BSV 4500—  
Clinical Externship I (16 weeks)**

The first 12 weeks of the clinical externship are designed to immerse the student in the vascular laboratory and health care environment. The student will be expected to transport and or escort patients into the examination room, pre-

pare patients for procedures, initially observe and later perform normal studies as requested by the preceptor, and prepare studies for interpretation. Students will complete competency-based assessment reports each week for the clinical instructor and clinical coordinator. **(12 semester hours)**

**BSV 4600—Clinical Externship II  
(16 weeks)**

This segment of the externship is designed to transition the student into less directly supervised vascular testing and more independent scanning. The student will be expected to complete normal and abnormal studies, write technical impressions on the studies performed, and present and document findings of the study. Students will continue to complete competency-based assessment reports each week for the clinical instructor and clinical coordinator. **(12 semester hours)**

**BSV 4700—Clinical Externship III  
(16 weeks)**

The final clinical externship is designed to ensure the student has gained an independent level of competency with both normal and abnormal studies with greater technical expertise and efficiency. The student will be expected to complete abnormal studies completely independently, present cases to the technical and medical director, and write technical impressions on the studies performed. Students will continue to complete competency-based assessment reports each week for the clinical instructor and clinical coordinator. **(12 semester hours)**

**MHS 5205—  
Writing for Medical Publication**

Study and review of quality medical writing techniques, issues, and procedures with emphasis on cultivating

personal style and content. Focus will be on writing for peer and evidence-based publications. (3 semester hours)

### **MHS 5501— Epidemiology and Biostatistics**

The ability to understand the conceptual and practical aspects of biostatistics and epidemiology in health care is critical to understanding research and analyzing population data about disease. This survey course will improve the ability of the student to understand and apply these concepts. (3 semester hours)

### **MHS 5510—Research Methods**

This course is designed to enable participants to develop skills in reading and critically evaluating published research using the scientific model. The advantages and disadvantages of quantitative and qualitative research methods will be compared and contrasted. Research articles will be collaboratively analyzed to develop an appreciation of potential methodological problems and their implications for evidence-based professional practice. (3 semester hours)

### **MHS 5521—Ethical Issues in Health Care**

The student will examine the ethical issues that confront health care providers and patients. The medical, scientific, moral, and socioeconomic bases of these issues and the decision-making process that providers and patients engage in are analyzed. Topics will include informed consent, the role of institutional review boards, euthanasia, and the allocation of scarce resources. (3 semester hours)

### **MHS 5530—Principles of Management in Health Care**

This course will discuss the various principles of management and its associated issues as they relate to the modern

health care professional. The course will explore topics such as concepts of organizational management, decision making, strategic planning, resource management and allocation, conflict, and the concept of power. (3 semester hours)

### **MHS 5107—Internship**

The student will complete 80 hours of internship in an area of interest within a health care organization, outside of his or her regular place of employment. The final product of this internship is an in-depth SWOT analysis of the unit or health care organization. The internship site requires prior M.H.Sc. faculty member approval. (5 semester hours)

### **MHS 5207—Practicum**

The practicum is a cumulating experience for M.H.Sc. students. Under supervision of an M.H.Sc. faculty adviser, students will develop community-based, health promotion and disease prevention interventions with underserved and/or nontraditional populations. (5 semester hours)

### **MHS 5001—APA Writing Seminar**

This seminar is designed to introduce students to the APA 5 writing style. They will be guided by an instructor through the main components of an APA-style academic paper, as well as internship and practicum reports. (2 semester hours)

### **MHS 5403—Directed Studies in Vascular Sonography I**

This course provides the foundation for MHS 5404 Directed Studies in Vascular Sonography II and MHS 5405 Directed Studies in Vascular Sonography III, which culminates in either a paper suitable for publication in a peer-

reviewed journal, a poster presentation at a scientific meeting, or a presentation at a professional conference. During the course, the student will propose a topic for directed study. After receiving faculty member approval, the student will produce the following aspects of a scientific paper: an introduction, a needs assessment, and identification of appropriate resources. Topics of study are selected and approved based on their relevance to the field of vascular sonography. Topic approval is done by the vascular sonography program director. (3 semester hours)

#### **MHS 5404—Directed Studies in Vascular Sonography II**

This course continues to build upon the topic selected in MHS 5403, while providing the foundation for MHS 5405 Directed Studies in Vascular Sonography III, which culminates in either a paper suitable for publication in a peer-reviewed journal, a poster presentation at a scientific meeting, or a presentation at a professional conference. During the course, the student will craft a comprehensive review of the literature section of the paper, the methodology and procedures section of the paper, and the anticipated results section of the paper for the topic approved in MHS 5403. Topics of study are selected and approved based on their relevance to the field of vascular sonography. Topic approval is done by the vascular sonography program director. **Prerequisite:** MHS 5403 (4 semester hours)

#### **MHS 5405—Directed Studies in Vascular Sonography III**

This course is the culmination of the topic that has been the subject of work in MHS 5403 and MHS 5404. MHS 5405 Directed Studies in Vascular

Sonography III concludes in either a paper suitable for publication in a peer-reviewed journal, a poster presentation at a scientific meeting, or a presentation at a professional conference. During the course, the student will construct a comprehensive review of the literature section of the paper, as well as the discussion, conclusions, implications, and recommendations sections of the paper for the topic approved in MHS 5403. The student will submit the final paper. Topics of study are selected and approved based on their relevance to the field of vascular sonography. Topic approval is done by the vascular sonography program director. **Prerequisites:** MHS 5403 and MHS 5404 (2 semester hours)

### **Accelerated Dual-Degree M.H.Sc./D.H.Sc. Program**

This accelerated dual-degree program was designed for accomplished, motivated health care practitioners educated at the bachelor's degree level who desire a clinically applicable, postprofessional, interdisciplinary doctoral degree. The program is specifically appropriate for those practitioners who have a strong desire to teach within the health disciplines at the graduate level or assume advanced professional and institutional leadership roles within the health care delivery system.

The combined M.H.Sc./D.H.Sc. degree provides rigorous academic exposure to a wide range of topics pertinent to clinicians, health administrators, and health professions educators. These topics include epidemiology, health care finance, statistics and research methods, conflict resolution, leadership studies, professional writing, health policy,



global health issues, evidence-based medicine, medical informatics, and medical quality assurance/risk management. Students have the opportunity to engage in capstone research experiences and internships within their home community.

Graduates are equipped with the knowledge, skills, and experience to expand their professional roles in both clinical and nonclinical arenas. Study is primarily nonresidential, and uses state-of-the-art online course platforms that permit synchronous and asynchronous learning experiences. Students are required to attend two one-week, on-campus institutes during the doctoral portion of their studies.

This accelerated track permits the motivated student to earn both a master's and a doctoral degree from our respected, regionally accredited research institution. The 81 credits of course content earned can be completed with three–seven years of study.

#### M.H.Sc./D.H.Sc. Accelerated Program

- total combined semester hours: 81
- 20 hours completed in the M.H.Sc. program
- 61 hours completed in the D.H.Sc. program
- M.H.Sc. degree awarded after completion of 43 credits (the 20 credits of the M.H.Sc. core courses, the D.H.Sc. ethics and research courses, a 4-credit D.H.Sc. course of the student's choice, the DHS internship/practicum preparation course, and the D.H.Sc. Internship and D.H.Sc. Practicum courses)
- M.H.Sc. courses all taught through distance learning

- D.H.Sc. courses taught through distance learning and at required on-campus summer institutes
- chat sessions and threaded discussions, a regular part of the program, promote student-professor and student-student interaction

### Admissions Requirements

Prior to matriculation, applicants must have completed a bachelor's degree from a regionally accredited college or university. Applicants should demonstrate a cumulative bachelor's degree GPA at or above a 3.0 on a 4.0 scale. Prior health care experience is required. The postprofessional M.H.Sc./D.H.Sc. dual-degree program is designed for health practitioners and clinicians from a wide variety of disciplines.

All applicants must show evidence of computer skills through coursework or self-study prior to the end of the first semester. Students may obtain instruction through the NSU microcomputer laboratory or other training facilities.

The university reserves the right to modify any requirement on an individual basis, as deemed necessary by the dean of the College of Allied Health and Nursing.

### Tuition and Fees

Tuition for 2010–2011 is \$300 per credit hour for M.H.Sc. courses and \$500 per credit hour for D.H.Sc. courses. Anticipated tuition for 2011–2012 is \$300 per credit hour for M.H.Sc. courses and \$550 per credit hour for D.H.Sc. courses. An NSU student services fee of \$750 is also required annually. All tuitions and fees are subject to change by the board of trustees without notice.

## Application Procedures

Applicants for admission must submit to EPS, or be responsible for submission of,

1. a completed application form, along with a \$50, nonrefundable application fee
2. two evaluation forms—supplied in the application package or by request—from supervisors or colleagues, clinical or nonclinical
3. official transcripts sent directly from all previously attended undergraduate, professional, and graduate institutions
4. all coursework from international institution(s), if applicant attended or is a graduate of any international institution(s)

Applicant is responsible for contacting one of the evaluation services listed here. The official evaluation must be sent directly from the evaluation service to the EPS.

World Education Services, Inc.  
PO Box 745  
Old Chelsea Station  
New York, New York 10113-0745  
(212) 966-6311

Joseph Silny & Associates  
7101 SW 102nd Avenue  
Miami, Florida 33173  
(305) 273-1616  
(305) 273-1338 (fax)  
[www.jsilny.com](http://www.jsilny.com)

Educational Credential Evaluators  
PO Box 514070  
Milwaukee, Wisconsin 53203-3470  
(414) 289-3400  
[www.ece.org](http://www.ece.org)

5. complete resume or curriculum vitae
6. copies of national and professional

certifications or licenses by a recognized certifying body (if applicable)

Complete applications and all admission documentation must be sent to

NOVA SOUTHEASTERN UNIVERSITY  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
M.H.Sc./D.H.Sc. Accelerated Track  
3301 College Avenue  
PO Box 299000  
Fort Lauderdale, Florida 33329-9905

Phone: (954) 262-1101

Fax: (954) 262-2282

## Computer Requirements

All students are required to have a computer with the following minimum specifications:

- Pentium or AMD at 1.00 GHZ or equivalent Macintosh processor
- 256 MB RAM
- video and monitor capable of 1024 X 768 resolution or better
- CD-ROM drive
- full duplex sound card and speakers
- Internet connection with Internet service provider (DSL, cable, or satellite highly recommended)
- Windows XP or NT or MAC OS
- Microsoft Office 2000 or newer with PowerPoint, Word, and Excel minimum
- printer capability

## Requirements for Graduation

To be eligible to receive the M.H.Sc. and D.H.Sc. degrees, students must

- be of good moral character
- satisfactorily complete the 20 credits in the M.H.Sc. and the 61 credits in the D.H.Sc. programs

- receive a recommendation by the M.H.Sc. and D.H.Sc. program directors to the dean of the College of Allied Health and Nursing

The M.H.Sc. degree can be awarded upon completion of 43 credits (the 20 credits of the M.H.Sc. core courses, the D.H.Sc. ethics and research courses, a 4-credit D.H.Sc. course of the student's choice, the DHS internship/practicum preparation course, and the D.H.Sc. Internship and D.H.Sc. Practicum courses).

### **Specific Requirements for Graduation for the M.H.Sc. in the Accelerated Dual-Degree M.H.Sc./D.H.Sc. Program**

Students are required to have 20 credits in the MHS core courses.

<b>Course #</b>	<b>Course Name</b>	<b>Credits</b>
MHS 5001	APA Writing Seminar	2
MHS 5205	Writing for Medical Publication	3
MHS 5501	Epidemiology and Biostatistics	3
MHS 5530	Principles of Management in Health Care	3
	MHS elective courses	9
<b>Total MHS Credits</b>		<b>20</b>

Students are required to have 22 credits in the DHS courses.

<b>Course #</b>	<b>Course Name</b>	<b>Credits</b>
DHS 8040	Professionalism and Health Care Ethics	4
DHS 8010	Statistics and Research Methods	4
	Student's choice of a DHS course	4
DHS 8130	Internship	5
DHS 8140	Practicum	5
<b>Total DHS Credits</b>		<b>22</b>
<b>Total Credits Applied to the Master of Health Science</b>		<b>42</b>

## Specific Requirements for Graduation for the M.H.Sc. in the Accelerated Dual-Degree M.H.Sc./D.H.Sc. Program for Students Matriculating on or After Fall 2009

Students are required to have 20 credits in the MHS core courses.

Course #	Course Name	Credits
MHS 5001	APA Writing Seminar	2
MHS 5205	Writing for Medical Publication	3
MHS 5501	Epidemiology and Biostatistics	3
MHS 5530	Principles of Management in Health Care	3
	MHS Elective Courses	9
<b>Total MHS Credits</b>		<b>20</b>

Students are required to have 23 credits in the DHS courses

Course #	Course Name	Credits
DHS 8040	Professionalism and Health Care Ethics	4
DHS 8010	Statistics and Research Methods	4
	Student's choice of a DHS course	4
DHS 8125	Preparation for the Internship/Practicum	1
DHS 8130	Internship	5
DHS 8140	Practicum	5
<b>Total DHS Credits</b>		<b>23</b>
<b>Total Credits Applied to the Master of Health Science</b>		<b>43</b>

## Course Of Study

### M.H.Sc. Degree Curriculum

#### Required MHS Courses (11 Credits)

---

MHS 5001 APA Writing Seminar

---

MHS 5205 Writing for Medical Publication

---

MHS 5501 Epidemiology and Biostatistics

---

MHS 5530 Principles and Practice of Management in Health Care

---

#### MHS Elective Courses (choose three—9 Credits)

---

MHS 5211 Contemporary Issues in Nutrition

---

MHS 5541 Health Care Systems and Conflict

---

MHS 5543 Educational Theories and Psychology

---

MHS 5544 Curriculum and Instruction in Health Care Education

---

MHS 5545 Assessment and Evaluation in Health Care Education

---

MHS 5400 Directed Studies

---

MHS 5546 Health Care Finance

---

Total credits completed in the M.H.Sc. program: 20

### D.H.Sc. Degree Curriculum

#### Required DHS Courses (21 Credits)

---

DHS 8010 Statistics and Research Methods

---

DHS 8040 Professionalism and Health Care Ethics

---

DHS 8190 Health Care Education

---

DHS 8080 Conflict Resolution

---

DHS 8170 Leadership in Health Care

---

DHS course for internship/practicum preparation

---

#### Block 1 (three out of four required—12 Credits)

All four may be taken. If only three are chosen, one elective may substitute for the fourth required course.

---

DHS 8000 Professional Competencies in the Clinical Care of Diverse and Special Populations

---

DHS 8030 Community Health Promotion and Disease Prevention

---

DHS 8090 Health Policy

---

DHS 8110 Community/Environmental Health

---

**Block 2 (4 Credits)**

One required, the others may be omitted or used as electives.

---

DHS 8400 Global Health Studies

---

HSP 9006 Evidence-Based Medical Practice

---

DHS 8750 Patient Safety and Medical Errors

---

DHS 8810 Epidemiology and Global Health

---

**Experiential (11 Credits)**

---

DHS 8125 Preparation for Internship and Practicum

---

DHS 8130 Internship

---

DHS 8140 Practicum

---

**Electives (Choose three—12 Credits)**

Any courses from Block 1 and 2 not counted toward core requirements can also be used as electives.

---

DHS 8100 Alternative and Complementary Medicine

---

DHS 8180 Medical Writing

---

DHS 8200 Independent Study A

---

DHS 8250 Independent Study B

---

DHS 8700 Comparative International Health Systems

---

DHS 8775 Survey of Health Law

---

DHS 8045 The Influence of Ethics and Culture on Global Health

---

---

DHS 8120 Doctoral Analysis (2 Credits)

---

**Total credits completed in the D.H.Sc. program: 61**

## **COURSE DESCRIPTIONS**

### **Master of Health Science**

#### **MHS 5001—APA Writing Seminar**

This seminar is designed to introduce students to the APA 5 writing style. They will be guided by an instructor through the main components of an APA-style academic paper as well as internship and practicum reports. (2 semester hours)

#### **MHS 5205—Writing for Medical Publication**

Study and review of quality medical writing techniques, issues, and procedures with emphasis on cultivating personal style and content. Focus will be on writing for peer and evidence-based publications. (3 semester hours)

#### **MHS 5501—Epidemiology and Biostatistics**

The ability to understand the conceptual and practical aspects of biostatistics and epidemiology in health care is critical to understanding research and analyzing population data about disease. This survey course will improve the ability of the student to understand and apply these concepts. (3 semester hours)

#### **MHS 5530—Principles of Management in Health Care**

This course will discuss the various principles of management and its associated issues as they relate to the modern health care professional. The course will explore topics such as concepts of organizational management, decision making, strategic planning, resource management and allocation, conflict, and the concept of power. (3 semester hours)

#### **MHS 5211—Contemporary Issues in Nutrition**

The course covers a variety of general concepts and contemporary discussions in the area of nutrition as it applies to personal health. Many of the concepts learned in this course can be applied to the patient counseling and advisement health care providers are asked to perform. (3 semester hours)

#### **MHS 5541—Health Care Systems and Conflicts**

This introductory course will assist learners to blend conflict resolution theories, models, and skills into realistic strategies that can be utilized in a health care setting. The attitudes, knowledge, and skills gained from this course can be applied to those who deliver, receive, and manage health care. The strategies will be applicable to working with diverse populations, including people of different cultural backgrounds, personalities, sex, positions of power, and agendas. Types of negotiation strategies to help move toward a collaborative situation will also be addressed. (3 semester hours)

#### **MHS 5400—Directed Studies in Medical Science**

This course provides the opportunity for students to explore a special topic of interest under the direction of a faculty member. Arrangements are made directly with the appropriate faculty member and the program director. Topic exploration is governed by the needs of the program and the educational goals of the student. Possible topics involve clinical and nonclinical aspects of the practice of medicine in the United States. (3 semester hours)

### **MHS 5543—Educational Theories and Psychology**

This course explores the history and evolution of educational theories and their role in the development of curriculum and instruction related to health care education. (3 semester hours)

### **MHS 5544—Curriculum and Instruction in Health Care Education**

Using the principles of curriculum development and related research, students will develop a plan for a unit of instruction for a health care course that includes a needs assessment, use of resources, implementation specification, material development, and assessment of instructional effectiveness. (3 semester hours)

### **MHS 5545—Assessment and Evaluation in Health Care Education**

This course provides an overview of student and program evaluation and assessment methods in health care education. This course will consider multiple assessment models used in clinical settings, from traditional written assessments to alternative assessment methods such as OSCEs, portfolios, and simulated patients. Students will develop an evaluation/assessment plan tailored to their professional situation. (3 semester hours)

### **MHS 5546—Health Care Finance**

This course introduces the fundamental theory and concepts of health care finance focusing on relevant applications to a wide variety of health care settings. Emphasis will be placed on the understanding of key issues in order to provide the tools necessary for clinicians to function within a health care environment. Concentration is

on managerial, rather than production, accounting perspective. Major topics include principles of accounting, budgeting, analysis of financial statements, activity-based costing, responsibility accounting, and provider payment and reimbursement systems. The student will be required to prepare a formal paper on a health care finance topic. (3 semester hours)

## **Doctor of Health Science**

### **DHS 8010—Statistics and Research Methods (Summer Institute Course)**

This course allows the student to develop understanding through critical analysis of the basic research methods used in health care. Students will be taught how to critically analyze medical information and perform effective literature reviews. Student will select a health care topic and do a review of the literature. The review will be at least 10 pages and will include a minimum of 20 references from books and journals. The student will utilize the NSU electronic library to get the references. Discussion boards are a required part of this course. (4 semester hours)

### **DHS 8040—Professionalism and Health Care Ethics**

This course is an in-depth study of the concepts of health care ethics. The course of study analyzes the differences between ethics and law and examines the core values and beliefs of medical professionalism. Methods of ethical analysis and a review of current case studies will be used in critical discussions of ethical dilemmas faced by health care personnel in areas such as cloning, organ transplantation, and the implications of the Human Genome Project. The



student will explore the personal values, professional standards, and institutional guidelines that define the roles and responsibilities of the health care practitioner. The student will be required to choose an ethical or professionalism issue in health care and prepare a written paper on that subject. **(4 semester hours)**

#### **DHS 8190—Health Care Education**

This course explores the various theories and applications of adult education in the practice of training, preprofessional education, and postprofessional education of medical personnel. Critical analysis of the different methods of teaching and training health care professionals is accomplished through discussion, research, investigation, journal development, and assignments. The capstone of the course will be to develop a 10-page paper on a specific method of educating health care professionals. Chat sessions and discussion boards are a required portion of this course. **(4 semester hours)**

#### **DHS 8080—Conflict Resolution in Health Care (Summer Institute)**

This course examines and analyzes the nature and dynamics of human conflict within civil societies. Emphasis is placed upon conflicts within and among governments and public sector agencies and between the health provider, patients, and medical institutions. Students will be expected to take an active role in the course and develop their own strategies for dealing with conflict. A paper will be required that details and analyzes a conflict situation in the student's work or other environment and how the conflict was resolved. **(4 semester hours)**

#### **DHS 8170—Leadership in Health Care (Summer Institute)**

This course explores the various methods of leadership and management, both in and out of health care, and their impact on productivity, profitability, and employee satisfaction. Critical analysis of the different types of leadership and management theories is given and the need for developing a leadership plan is explored. The student is expected to gain knowledge of the various types of leaders and systems and will be required to research and develop a paper on a specific leadership theory. **on-campus institute (4 semester hours)**

#### **DHS 8000—Clinical Competencies in the Delivery of Health Care to Diverse and Special Populations**

This course includes a discussion and analysis of the impact of ethnic and cultural issues on health care delivery systems. An in depth analysis of the barriers faced by health care providers when presented with a diverse ethnic population is presented. Critical analysis of the different cultural perceptions of disease and treatment is given, and the need for developing a cultural sensitivity is explored. The student is expected to gain knowledge of cultural differences and the need to respect the background of the patient when formulating treatment plans. The student will be required to research a chosen topic on a diverse population and their impact on the health care system. Chat sessions and discussion boards are a required portion of this course. **(4 semester hours)**

#### **DHS 8030—Community Health Promotion and Disease Prevention**

This course develops the knowledge and skills needed to work with com-

munities to improve the health status of the community. Major topics will include health promotion and disease prevention. Special emphasis will be placed on the “Healthy People 2010” initiatives. Students will be required to complete a paper of at least 20 pages based on an intervention strategy from “Healthy People 2010.” The paper will include an introduction, review of the literature, discussion, and conclusion in chapter form. Discussion boards are a required part of this course. **(4 semester hours)**

#### **DHS 8090—Health Policy, Planning, and Management**

This course critically examines the dynamics of health care in the United States. The student is expected to analyze the health care industry and contrast nonprofit and for-profit health care delivery systems. A critical exploration of the ramifications of health care reform and the impact on institutions and individuals will be undertaken. The concepts of cost containment, and long-term care will be analyzed. The student will be expected to write a paper on health care reform and managed care that is at least 10 pages in length and provides an informed opinion on future directions of health care reform. The paper should address the question of what new directions managed care may go in and what the future of health care reform is. **(4 semester hours)**

#### **DHS 8110—Community Environmental and Occupational Health**

Issues such as air and water quality and waste management will be examined. OSHA will be examined and analyzed for its impact on health and health care. Trends in environmental and

occupational health legislation will be examined for their impact potential. Students will contact one of their senators or representatives for an environmental statement, and then write a critical analysis. **(4 semester hours)**

### **Block 2**

#### **DHS 8400—Global Health Studies**

Global health care is an emerging priority for health professional education programs and clinical practice. It is essential for all health care professionals to understand the impact of global health issues on health care and international economic stability. This course explores the many facets of global health to expose the student to the complexity of the concepts that impact health care in developing and developed countries. **(4 semester hours)**

#### **HSP 9006—Evidence-Based Medical Practice**

This course provides a working knowledge of evidence-based medicine. Cases will be used as the backbone of this course to assist the student in analyzing data to justify the treatments used in clinical practice. Students will also learn how to critically appraise the literature, evaluate diagnostic test performance, design clinical pathways and standards of care, and implement evidenced-based medicine findings in their own clinical or administrative setting. **(4 semester hours)**

#### **DHS 8750—Patient Safety and Medical Errors**

Leadership plays a key role in adopting practices to promote patient safety, and leaders should have the skills necessary to be effective in the implementation of these practices. This course will focus on patient safety through a study of safety-oriented lead-

ership, organizational culture, human factors, decision-making science, communication, and a systems approach to health care delivery. Current best practice models and the latest professional literature emphasizing patient safety will be featured. **(4 semester hours)**

### **DHS 8130—Internship**

This course is the capstone of the program. The student will perform an internship at a community health care institution, clinic, educational facility, etc., that is approved by the D.H.Sc. program. The student should spend a minimum of 80 clock hours in the health promotion department. Health promotion activities should be critically analyzed. The student will complete a 20-page paper that describes the institution, defines the population served, analyzes the reimbursement options accepted, and details the health promotion activities observed. A critical evaluation should be made that details strengths, weaknesses, opportunities, and threats to the institution. Recommendations for improvement should be made, if needed. **(5 semester hours)**

### **DHS 8140—Practicum**

The practicum is a written project that is developmental in nature. D.H.Sc. faculty advisers must approve the practicum subject. The practicum must be preceded by a proposal that contains the project idea and a preliminary literature review. The student will be required to choose a health promotion topic, perform a literature review, and create a health promotion program that can be used for a community education program. An implementation and evaluation plan must be included in the final product. **(5 semester hours)**

### **DHS 8120—Doctoral Analysis**

In this faculty-supervised project, the capstone of the program, the student will develop a paper (the final paper for the doctoral program). The basis of the paper will use the objectives from the core courses and one elective as guidelines and references. This will require research into teaching and learning methods as well as online and in-class comparisons. The outcome or final product will be an in-depth analysis of the information presented and the knowledge gained during the doctoral program. This paper will also include methods for improving the program of study in the D.H.Sc. department and detailed methods to be used to deliver the proposed changes. **(2 semester hours)**

### **DHS 8125—Preparation for Internship and Practicum**

This is a 1-credit course where students work closely in a one-on-one fashion with their course instructor/mentor to develop appropriate learning objectives and experiential plans for the internship (8130) and a substantial developmental project for the practicum (8140). Together, the internship and practicum form the capstone of the program. Attention is also paid to appropriate preparation for the form and style of the written deliverables of the internship and practicum and appropriate timelines for completion. **(1 semester hour)**

## **Doctor of Health Science (D.H.Sc.) Program**

The D.H.Sc. has a two-track curriculum. One is the generalist track. The second is a generalist track with a concentration in global health studies. The generalist D.H.Sc. program requires completion of a minimum of 61 semester hours of coursework. This includes 48 semester hours didactic coursework, 11 semester hours practical coursework, and 2 semester hours for the Doctoral Objective Analysis. The generalist D.H.Sc. program with a concentration in global health studies also consists of 61 semester hours, with the majority of electives and the internship and practicum dedicated to global health topics.

The D.H.Sc. program is designed for completion in a distance learning format and requires only minimal on-campus time during two intensive, one-week, summer institute seminar sessions. The residential summer sessions are available at the NSU campuses or student educational centers, with the location varying from year to year.

The program curricula are designed to build upon the scientific and general knowledge of the health care professional while focusing on the overall health care picture. Leadership, policy, diversity, evidence-based medical practice, and alternative methods of treatment are but a few of the areas stressed in the generalist curriculum.

During the generalist course of study, the student must complete a practicum and internship approved by the D.H.Sc. program director in an area of health care such as leadership, education, policy, or delivery. Students selecting the global health concentration will focus their internship and practicum work in the global health arena. The intern-

ship is used to expose the student to an area of health care not commonly experienced in the student's normal area of practice. Though they are two separate portions of the curriculum, the internship may be used as an area of research in preparation for undertaking the practicum.

The coursework is professor-paced using state-of-the-art, Web-based delivery. The curriculum and coursework follow a standard 12-week semester calendar in conjunction with resident on-campus programs. At the standard pace established by the program, the course of study can be completed in three years. It is required that all coursework be completed within seven years.

### **Admissions Requirements**

Prospective D.H.Sc. students are selected by the Committee on Admissions, which considers the overall qualities of applicants and their suitability for this course of study. Areas of consideration include application content, academic record, prior health care experience, letters of evaluation, and personal motivation. In special circumstances, a personal interview with members of the committee on admissions may be required.

1. Prior to matriculation, applicants must have completed a master's degree from a regionally accredited college or university.
2. Applicants should demonstrate a cumulative master's degree G.P.A. at or above a 3.0 on a 4.0 scale to be eligible for regular admission.
3. The Committee on Admissions will make a recommendation to the dean of the college as to any remedial coursework necessary for an applicant to achieve full admission.

Prior health care experience is required and is strongly considered in the admissions process. The D.H.Sc. is a postprofessional degree designed for health practitioners, public health professionals, and health care administrators from a wide variety of disciplines. The commonality exhibited by our students is the expert practice of a recognized health occupation at a professional level, or five years of administrative experience in a health care organization with progressively increasing responsibilities over that time frame. The successful applicant's health profession may emphasize delivery of services to individual clients (e.g., PA, PT, R.N., LCSW, etc.) or be population based (M.P.H., M.H.A.). An appropriate level of professional practice is generally recognized by health professions licensure (e.g., R.N., PT), a national certification or registration (e.g., PA-C, RVT, RRT, CRNA, , FACHE), a recognized health professions academic credential (e.g., M.P.H., M.S.N., M.S.W., M.H.A., M.B.A.), or a combination of the above. All questions regarding the appropriateness of an applicant's qualifications for admission can be discussed with the department chair or program director on an informal basis, but the official recommendations are made by the Committee on Admissions to the dean of the College of Allied Health and Nursing. The dean makes the final determination. Successful past applicants and graduates have included physicians, dentists, nurses, nurse practitioners, nurse midwives, physician assistants, master's degree-level social workers, physical therapists, occupational therapists, dental hygienists, and athletic trainers.

We have recently expanded the program to include health care

administrators, and our graduates now include a hospital CEO and an assistant surgeon general of the U.S. Public Health Service.

4. All applicants must show evidence of computer skills through coursework or self study prior to the end of the first term. Students may obtain instruction through the NSU Student Microcomputer Laboratory, the D.H.Sc. Orientation Center, or other training facilities.

### **Application Procedures**

All applicants for admissions must submit or be responsible for the submission of

1. a completed application form along with a \$50, nonrefundable application fee
2. two letters of evaluation from supervisors or colleagues, clinical or nonclinical, or the direct supervisor, describing the applicant's position and responsibilities within the organization, for an administrative/nonclinical applicant (The evaluation form is supplied in the application package.)
3. official transcripts sent directly from all previously attended undergraduate, professional, and graduate institutions to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
Attn: College of Allied Health and  
Nursing—D.H.Sc. Program Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905

Phone: (954) 262-1101

Fax: (954) 262-2282

4. an evaluation for U.S. institutional equivalence for all coursework from international institution(s), if applicant attended or is a graduate of any international institution(s)

Applicant is responsible for contacting one of the evaluation services listed here. The official evaluation must be sent directly from the evaluation service to the EPS.

- World Education Services  
P.O. Box 745  
Old Chelsea Station  
New York, New York 10113-0745  
(212) 966-6311  
[www.wes.org](http://www.wes.org)
- Josef Silny & Associates  
7101 SW 102nd Avenue  
Miami, Florida 33173  
(305) 273-1616  
(305) 273-1338 fax  
[www.jsilny.com](http://www.jsilny.com)  
[info@jsilny.com](mailto:info@jsilny.com)
- Educational Credential Evaluators  
P.O. Box 514070  
Milwaukee, Wisconsin 53203-3470  
(414) 289-3400  
[www.ece.org](http://www.ece.org)

5. a complete resume or CV

6. copies of national and professional certifications or licenses by recognized certifying bodies

Administrative/nonclinical applicants for admissions must also submit or be responsible for the submission of

- career and professional goal statement
- an organizational chart indicating the applicant's position and area of authority in the employment organization

Completed applications must be sent to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
D.H.Sc. Program Admissions  
3301 College Avenue

P.O. Box 299000  
Fort Lauderdale, Florida 33329-9905

The D.H.Sc. Office of Admissions works on a rolling admissions basis. Applications are accepted year round. To ensure that your application receives prompt consideration, you should apply early. All final documentation must be received by the EPS no later than one month prior to intended registration date.

The D.H.Sc. Committee on Admissions will not consider an application until all required fees, credentials, transcripts and test scores have been received by the EPS.

### Tuition and Fees

Tuition for the 2010–2011 D.H.Sc. program is \$500 per credit hour. Anticipated tuition for the 2011–2012 D.H.Sc. program is \$550 per credit hour. Additional expenses and fees may be incurred. Examples include, but are not limited to travel to and from campus, graduation fees, books, etc. An NSU student services fee of \$750 is required annually. Tuition and fees are subject to change by the board of trustees without notice.

### Requirements for Graduation

To be eligible to receive the D.H.Sc. degree, students shall

- be of good moral character
- satisfactorily complete the program of 61 semester hours (minimum) of study required for the degree.
- successfully complete the D.H.Sc. internship and practicum, and doctoral analysis
- receive a recommendation by the D.H.Sc. program director to the dean of the College of Allied Health and Nursing

## Curriculum Outline

### CORE COURSES

#### Core Block One—16 credits

Four of the following courses are required. Either DHS 8090 or DHS 8095 may be used to fulfill the health policy requirement. Either 8040 or 8045 will fulfill the ethics requirement. Courses not taken as requirements may be used as electives.

COURSE #	COURSE TITLE	SEMESTER HOURS
DHS 8000	Clinical Competencies in the Delivery of Health Care to Diverse and Special Populations	4
DHS 8030	Community Health Promotion and Disease Prevention	4
DHS 8040	Professionalism and Health Care Ethics	4
OR		
DHS 8045	The Influence of Ethics and Culture on Global Health	4
DHS 8090	Health Policy, Planning, and Management	4
OR		
DHS 8095	Global Health Policy	4
DHS 8110	Community Environmental and Occupational Health	4

Students interested in a global health concentration should take DHS 8045 and DHS 8095, either as core courses or as electives. Students matriculating after July 2007 should take at least one ethics course (either 8040 or 8045) and one health policy course (either 8090 or 8095), unless they obtain program director approval.

#### Core Block Two—8 credits

Two of the following courses are required. The other courses may be omitted or used as electives.

COURSE #	COURSE TITLE	SEMESTER HOURS
DHS 8400	Global Health Issues	4
DHS 8750	Patient Safety	4
DHS 8190	Health Care Education	4
DHS 8800	Health Care Informatics	4
DHS 8810	Global Epidemiology	4
HSP 9006	Evidence-Based Medical Practice	4

Students interested in the global health concentration should take DHS 8400 and DHS 8810, either as core courses or electives.

**EXPERIENTIAL (REQUIRED)—11 Credits**

COURSE #	COURSE TITLE	SEMESTER HOURS
DHS 8125	Preparation for Internship and Practicum	1
DHS 8130	Internship	5
DHS 8140	Practicum	5

**SUMMER RESIDENTIAL INSTITUTES (REQUIRED)—12 Credits**

COURSE #	COURSE TITLE	SEMESTER HOURS
DHS 8010	Statistics and Research Methods	4
DHS 8080	Conflict Resolution in Health Care	4
DHS 8170	Leadership in Health Care	4

**ELECTIVES****(TWO OR THREE COURSES MUST BE COMPLETED)—8–12 Credits**

COURSE #	COURSE TITLE	SEMESTER HOURS
DHS 8100	Alternative and Complementary Medicine	4
DHS 8180	Medical Writing	4
DHS 8200	Independent Study A	4
DHS 8250	Independent Study B	4
DHS 8700	Comparative International Health Systems	4
DHS 8775	Survey of Health Law	4

Students interested in the global health concentration should take DHS 8400 and DHS 8810, either as core courses or electives.

**CAPSTONE (REQUIRED)—2 Credits**

This course must be completed in the last semester of coursework.

COURSE #	COURSE TITLE	SEMESTER HOURS
DHS 8120	Doctoral Analysis	2

**TOTAL            61**

On-campus institutes—These one-week, summer sessions are held either on the main campus or at one of the NSU student educational centers. Two such institutes are required to complete the program for the D.H.Sc. degree. These institutes are required for both the generalist track and the conflict resolution track.



## Doctor of Health Science Course Descriptions

### DHS 8000—Competencies in the Clinical Care of Diverse and Special Populations

This course includes a discussion and analysis of the impact of ethnic and cultural issues on health care delivery systems. An in-depth analysis of the barriers faced by health care providers when presented with a diverse ethnic population is presented. Critical analysis of the different cultural perceptions of disease and treatment is given, and the need for developing cultural sensitivity and competency is explored. The student is expected to gain knowledge of cultural differences and the need to respect the background of the patient when formulating treatment plans. The student will be required to research a chosen topic on a diverse population and develop a paper regarding their impact on the health care system. **(4 semester hours)**

### DHS 8010—Statistics and Research Methods

This course allows the student to develop an understanding through critical analysis of the basic research methods used in health care. Students will be taught to critically analyze medical information and perform effective literature reviews. Students will select a health care topic and perform a review of the literature that is at least 10 pages and includes a minimum of 20 references from books and journals, using the NSU electronic library. **(4 semester hours, on-campus institute)**

### DHS 8030—Community Health Promotion and Disease Prevention

This course develops the knowledge and skills needed to work with communities to improve health status of the population. Major topics will include health promotion and disease prevention. Special emphasis will be placed on the Healthy People 2010 initiatives. Students will be required to complete a paper of at least 20 pages based on an intervention strategy from Healthy People 2010. The paper will include an introduction, review of the literature, discussion, and conclusion in chapter form. **(4 semester hours)**

### DHS 8040—Professionalism and Health Care Ethics

This course is an in depth study of the concepts of health care ethics. The course of study analyzes the differences between ethics and law and discusses the three ethical theories. There is a critical discussion and analysis of the ethical dilemmas faced by health care personnel in such areas as cloning, organ transplantation, and the implications of the Human Genome Project. The impact of technological advances on ethical issues will be studied for their implications for future health care practitioners. The student will be required to choose an ethical issue in health care and prepare a written paper on that subject. **(4 semester hours)**

### DHS 8045—The Influence of Ethics and Culture on Global Health

The purpose of this course is to provide an introduction to the principles and theory of ethics as applied to global

health and how culture influences ethical decision making. The course will examine some of the primary theories and principles in health care ethics including virtue, deontology, utilitarian, autonomy, justice, beneficence, and nonmaleficence. The course will explore many prominent global health issues and exemplify how greater knowledge and understanding of global ethics and culture is vital to effective and sound decision making. Topics that will be discussed include ethical issues related to pandemic preparedness, end of life, human organ transplantation, clinical research in developing countries, human rights, resource allocation, and the effects of globalization on world health. It is anticipated that students will bring their own ethical dilemmas arising from their own experiences, culture, and practice. **(4 semester hours)**

#### **DHS 8080— Conflict Resolution in Health Care**

This course examines and analyzes the nature and dynamics of human conflict within civil societies. Emphasis is placed on conflicts within and among governments and public sector agencies and between the health provider, patients and medical institutions. Students will be expected to take an active role in the course and develop their own strategies for dealing with conflict. A paper will be required that details and analyzes a conflict situation in the student's work or other environment and how the conflict was resolved. **(4 semester hours, one-week on-campus institute)**

#### **DHS 8090—Health Policy, Planning, and Management**

This course critically examines the dynamics of health care in the United States. The student is expected to analyze the health care industry and contrast non-profit and for-profit health care delivery systems. An exploration of the ramifications of health care reform and the impact on institutions and individuals will be undertaken. The concepts of cost containment and long-term care will be analyzed. The student will be expected to write a paper on health care reform and managed care that is at least 10 pages in length and provides an informed opinion on future directions of health care reform. The paper should address the question new directions managed care may take and what the future of health care reform may be. **(4 semester hours)**

#### **DHS 8095—Global Health Policy**

Globalization affects all sectors, including health care, and understanding key policy issues is essential in the study of global health. This course examines the health policy issues confronting international health organizations, financial institutions, governments, and specific populations. It reviews the processes that influence the development and implementation of policies and examines specific topics related to HIV/AIDS, conflict, infectious disease, smoking, concerns of food distribution, reproductive health/safety, and other global major health concerns. **(4 semester hours)**

### **DHS 8100—Alternative and Complementary Medicine**

This course examines and analyzes alternative and complementary medicine and their impact on the health care industry. The approach to the subject is to present selected alternative and complementary medicine fields in an informative, non-judgmental format. Students will be allowed to choose either an alternative or complementary medicine field and complete a paper of at least 15 pages that is presented as a patient or community education tool. Special emphasis will be placed on the educational value of the project, rather than a pro/con stance. (4 semester hours)

### **DHS 8110—Community Environmental and Occupational Health**

Issues such as air and water quality and waste management will be examined. OSHA will be examined and analyzed for its impact on health and health care. Trends in environmental and occupational health legislation will be examined for their impact potential. Students will participate by contacting one of their senators or house representatives for an environmental statement and then write a critical analysis. (4 semester hours)

### **DHS 8125—Preparation for Internship and Practicum**

This is a 1-credit course where students work closely in a one-on-one fashion with their course instructor/mentor to develop appropriate learning objectives and experiential plans for the internship (8130) and a substantial developmental project for the practicum (8140). Together, the

internship and practicum form the capstone of the program. Attention is also paid to appropriate preparation for the form and style of the written deliverables of the internship and practicum and appropriate timelines for completion. (1 semester hour)

### **DHS 8130—Internship**

The student will perform an internship at a community health care institution, clinic, etc., that is approved by the D.H.Sc. faculty. The student should spend a minimum of 80 clock hours in the health promotion or similar department. Health promotion activities should be critically analyzed. The student will complete a 20-page paper describing the institution, defining the population served, analyzing the reimbursement options accepted, and detailing the health promotion activities observed. A critical evaluation should be made that details strengths, weaknesses, opportunities, and threats to the institution. Recommendations for improvement should be made, if needed. (5 semester hours)

### **DHS 8140—Practicum**

The practicum is a written project that is developmental in nature. The D.H.Sc. faculty advisers must approve the practicum topic. The practicum must be preceded by a proposal that contains the project idea and a preliminary literature review. The student will be required to choose a health topic, perform a literature review, and create a product that is a health promotion program that can be used for community education. An implementation and evaluation plan must be included in the final product. (5 semester hours)

### **DHS 8150—Internship**

This course is a continuation of the DHS 8130 Internship. It is used when the student is in need of additional time to satisfy the requirements for an incomplete internship. **(continuing services, 0 semester hours)**

### **DHS 8160—Practicum**

This course is a continuation of the DHS 8140 Practicum. It is used when the student is in need of additional time to satisfy the requirements for an incomplete practicum. **(continuing services, 0 semester hours)**

### **DHS 8170—**

#### **Leadership in Health Care**

This course explores the various methods of leadership and management, both in and out of health care, and their impact on productivity, profitability, and employee satisfaction. Critical analysis of the different types of leadership and management theories is given and the need for developing a leadership plan is explored. The student is expected to gain knowledge of the various types of leaders and systems and will be required to research and develop a paper on a specific leadership theory. **(4 semester hours, one-week on-campus institute)**

### **DHS 8180—Medical Writing**

This course examines in practical terms the elements required for the successful publication of a journal article or clinical case review. Methods of document preparation, proper word and punctuation use, and the requirements for authors of biomedical journal articles will be discussed. All students are required to develop a quality paper that meets the stan-

dards required for publication in a peer-reviewed professional/biomedical journal. **(4 semester hours)**

### **DHS 8190—Health Care Education**

This course explores the various theories and applications of adult education in the practice of training, preprofessional education, and postprofessional education of medical personnel. Critical analysis of the different methods of teaching and training health care professionals is accomplished through discussion, research, investigation, journal development, and assignments. The capstone of the course will be to develop a 10-page paper on a specific method of educating health care professionals. Chat sessions and discussion boards are a required portion of this course. **(4 semester hours)**

### **DHS 8200—Independent Study A**

This course is a self-directed, faculty-supervised experience for the student. The student will be required to develop a proposal regarding the topic of study, a learning contract with a minimum of six specific objectives, and a plan of action that includes methods of obtaining the information and the material produced, thus demonstrating an in-depth understanding of the subject areas listed in the objectives. A faculty member will be assigned to the student for the supervised study and will follow the approved learning contract for successful completion of the course. The purpose of this course is to allow the student to explore an area of interest in the field of health care or health sciences. The secondary benefit of the course is to allow the student, with the assistance of the faculty member,

to develop a doctoral-level course of study. (4 semester hours)

#### **DHS 8250—Independent Study B**

This course is a self-directed, faculty-supervised experience for the student. The student will be required to develop a proposal regarding the topic of study, a learning contract with a minimum of six specific objectives, and a plan of action that includes methods of obtaining the information and the material produced, thus demonstrating an in-depth understanding of the subject areas listed in the objectives. A faculty member will be assigned to the student for the supervised study and will follow the approved learning contract for successful completion of the course. The purpose of this course is to allow the student to explore an area of interest in the field of health care or health sciences. The secondary benefit of the course is to allow the student, with the assistance of the faculty member, to develop a doctoral-level course of study. (4 semester hours)

#### **DHS 8400—Global Health Issues**

Global health care is an emerging priority for health professional education programs and clinical practice. It is essential for all health care professionals to understand the impact of global health issues on health care and international economic stability. This course explores the many facets of global health to expose the student to the complexity of the concepts that impact health care in developing and developed countries. (4 semester hours)

#### **DHS 8700—Comparative International Health Systems**

Every country in the world implements a unique health service delivery system or model; some have been more successful than others in promoting and meeting the health needs of their citizens. Currently, all countries are struggling to reform their health care systems and are experiencing conflict between controlling costs and maintaining or improving quality and quantity of health care services provided. The purpose of this course is to provide an introduction to the principles, structure, and function of international health systems through a comparative analysis of various countries' health care systems. The course will explore how national systems have evolved and how countries confront the emerging issues in health care. It will explore and develop a systematic comparative analysis of the evolution, administrative structures, societal choices, financing, and provision of health care services in underdeveloped, developing, and developed countries. (4 semester hours)

#### **DHS 8750—Patient Safety**

This course is an in-depth study of the concepts and practices related to patient safety in the United States health care system, enabling students to apply them in the context of professional practice. The course will provide an overview of the origins of the patient safety movement, its rise to public awareness and as a national policy initiative, the scope and magnitude of medical error in U.S. health care today, and current practices for improvement. (4 semester hours)

### **DHS 8775—Survey of Health Law**

This course is designed to introduce D.H.Sc. students to health law, or law as it affects the professionals and institutions that deliver health care in the United States. The course focuses on the traditional areas of concern for courses on health law, including: 1) access to health care; 2) the cost of health care; 3) the quality of health care; and 4) protection of the patient. **(4 semester hours)**

### **DHS 8800—Health Care Informatics**

The application of computers and technology in health care has become increasingly critical to patient care over the past two decades. There is no area of health care that does not rely on this discipline to some extent. This course explores the field of informatics and technology in health care. Emphasis will be placed on applications that directly impact health care delivery. Through assigned readings, a research paper, a special demonstration project, discussion board postings, and group chat sessions, the learner will be expected to demonstrate a broad knowledge of health care informatics, technology applications, and educational needs, as well as present his or her own experiences. **(4 semester hours)**

### **DHS 8810—Epidemiology and Global Health**

This course emphasizes the underlying concepts of the epidemiologic approach as it relates to pertinent global health issues. The student will be introduced to principles and methods of epidemiologic research. These include study designs, measures of frequency association, impact, and

sources of error. Application to global health and public health strategies for disease prevention, surveillance, and control are discussed. **(4 semester hours)**

### **HSP 9006—Evidence-Based Medical Practice**

This course provides a working knowledge of evidence-based medicine. Cases will be used as the backbone of this course to assist the student in analyzing data to justify the treatments used in clinical practice. Students will also learn how to critically appraise the literature, evaluate diagnostic test performance, design clinical pathways and standards of care, and implement evidenced-based medicine findings in their own clinical or administrative setting. **(4 semester hours)**

### **Capstone Course (all)**

#### **DHS 8120— Doctoral Analysis**

In this faculty-supervised project, the capstone of the program, the student will develop a paper, (the final paper for the doctoral program), using the objectives from the core courses and one elective as guidelines and references to form the basis of the paper. This will require research into teaching and learning methods as well as online and in-class comparisons. The outcome or final product will be an in-depth analysis of the information presented and the knowledge gained during the doctoral program. This paper will also include methods for improving the program of study in the D.H.Sc. department and detailed methods to be used to deliver the proposed changes. **(2 semester hours)**

## **Doctor of Philosophy (Ph.D.) in Health Science Program**

The Ph.D. in Health Science is a postprofessional, distance-based, research doctoral program designed for master's degree-prepared clinical health professionals, public health practitioners, and senior-level health care administrators. The focus of the Doctor of Philosophy in Health Science is to educate and graduate research practitioners with the skills and knowledge to conduct research in a complex society and environment, while focusing globally within the framework of health policy. The Ph.D. in Health Science requires 71 credits for completion. Students take courses through online delivery, with on-campus institutes. Successful completion of comprehensive exams is required before moving to the dissertation stage. The dissertation is 12 credits, with an on-campus oral defense. Students have up to seven years to complete the program.

The Doctor of Philosophy in Health Science is designed to provide a means of Ph.D. completion for working health care professionals currently at the master's degree level, increasing opportunities for health practitioners to earn a terminal degree in the field of health science with a core focus in research. It will prepare graduates to function both independently and interdependently within the clinical and nonclinical research environment and for advanced development of new knowledge in their fields of expertise. Through professor-driven, student-centered online course delivery, coupled with a research practicum; three one-week, on-campus institutes; and a dissertation with oral defense,

the Ph.D. in Health Science program challenges the student to examine the current state of health care; apply sophisticated knowledge of research design, biostatistics, and epidemiology to the literature of their core discipline; and initiate the design and follow up mechanisms for research in health care.

### **Admissions Requirements**

The Ph.D. program will admit health care professionals with diverse graduate education, professional level health care work history, and life experiences who have demonstrated capacity to pursue a rigorous course of graduate study and increasingly responsible positions in health care. Prospective Ph.D. students are selected by considering the overall qualities of the applicant through application content, academic record, prior health care experience, letters of evaluation, and personal motivation.

1. All applicants must hold a master's degree from a regionally accredited college or university prior to matriculation into the program. In special circumstances, a personal interview may be required.
2. Applicants must have a cumulative master's degree GPA of 3.0 or better on a 4.0 scale.
3. Applicants must have prior health care or health research experience and must submit verifiable documentation regarding this experience to the Office of Admissions.

Prior health care experience is strongly considered in the admissions process. The Ph.D. in Health Science is designed for health practitioners, public health professionals, and health care administrators from a wide variety

of disciplines. The commonality exhibited by our students is the expert practice of a recognized health occupation at a professional level, or five years of administrative experience in a health care organization with progressively increasing responsibilities over that time frame. The successful applicant's health profession may emphasize delivery of services to individual clients (e.g., PA, PT, R.N., LCSW, etc.) or be population-based (M.P.H., M.H.A.). An appropriate level of professional practice is generally recognized by health professions licensure (e.g., R.N., PT), a national certification or registration (e.g., PA-C, RVT, RRT, CRNA, FACHE), a recognized health professions academic credential (e.g., M.P.H., M.S.N., M.S.W., M.H.A., M.B.A.), or a combination of the above. All questions regarding the appropriateness of an applicant's qualifications for admission can be discussed with the department chair or program director on an informal basis, but the official recommendations are made by the Committee on Admissions to the dean of the College of Allied Health and Nursing. The dean makes the final determination.

All applicants must show evidence of computer skills through coursework or self study prior to the end of the first term. Students may obtain instruction through the NSU Student Microcomputer Laboratory, the Health Science Online Orientation, or other training facilities.

### **Application Procedures**

Before the applicant can be reviewed for possible admission, the following must be submitted:

1. a completed health science doctoral application form with a \$50, nonrefundable application fee (students can apply online at <http://webstar.nova.edu/>)
2. two evaluation forms (supplied in the application package from the program) from a supervising physician or manager (Additional letters may be requested by the program after initial review of application, if so warranted.)
3. official transcripts from all previously attended undergraduate, professional, and graduate institutions, showing a cumulative GPA of 3.0 or higher, sent directly to  
  
Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
Health Science Doctoral Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, FL 33329-9905
4. proof of completion from an accredited professional allied health program, if applicable
5. a copy of the applicant's master's degree from a regionally accredited institution
6. a copy of current state licensure, registration, or certification, as well as a copy of national allied health professional certification or licensure, if applicable
7. a complete resume or CV
8. evaluation for U.S. equivalency for all coursework from international institution(s), if applicant attended or is a graduate of any international institution(s)



Applicant is responsible for contacting one of the evaluation services listed here. The official evaluation must be sent directly from the evaluation service to the EPS.

World Education Services, Inc.  
P.O. Box 745  
Old Chelsea Station  
New York, New York 10113-0745  
(212) 966-6311

Josef Silny & Associates, Inc.  
7101 SW 102nd Avenue  
Miami, Florida 33173  
(305) 273-1616

Educational Credential Evaluators, Inc.  
P.O. Box 514070  
Milwaukee, Wisconsin 53203-3470  
(414) 289-3400  
[www.ece.org](http://www.ece.org)

A personal interview with the Committee on Admissions may be required in some cases. A phone interview and/or advisement may be substituted upon approval.

The Office of Admissions processes applications regularly throughout the year. Applicants can apply for acceptance for any one of four starting dates during an academic year (January, April, July, and October). All final documentation must be received at least 30 days prior to tentative enrollment. The Ph.D. Committee on Admissions will not consider an application until all required fees, credentials, documents, and transcripts have been received by the Office of Admissions.

### **Transfer of Credits**

Students matriculated in the Ph.D. program may petition for transfer of credits to the program. Up to, but not

to exceed, 8 credits may be considered for transfer from a regionally accredited doctoral program of study. Credits will be transferred only if the courses meet the goals and objectives of the course in question.

### **Tuition and Fees**

Anticipated tuition for the 2011–2012 Ph.D. program (subject to change by the board of trustees without notice) is \$550 per semester hour. Additional expenses and fees may be incurred including, but not limited to, travel to and from campus, graduation fees, books, etc. An NSU student services fee of \$750 is required annually.

### **Requirements for Graduation**

To be eligible to receive the Ph.D. in Health Science degree, students must successfully

1. complete all core and research courses, as well as required electives
2. complete a minimum of 71 semester hours of prescribed coursework in the program
3. pass the comprehensive exam after completion of all courses
4. complete the research practicum
5. complete a dissertation based on original research in an area of the student's expertise or concentration, as approved by the program chair and dissertation committee
6. defend the dissertation, as determined by the dissertation committee

## **Computer Requirements**

All students are required to have a computer with the following minimum specifications:

- Pentium or AMD at 1.00 GHZ or equivalent Macintosh Processor
- 256 MB RAM
- video and monitor capable of 1024x768 resolution or higher
- CD-ROM drive
- full duplex sound card and speakers
- 56.6 baud modem (a DSL or cable modem is a plus in an online program)
- Internet connection with private Internet service provider (ISP) for access from home to the Internet (DSL, cable, or satellite highly recommended)
- Windows XP or NT or MAC OS
- Microsoft Office 2000 or newer with PowerPoint, Word, and Excel minimum
- surge suppressor electrical outlet

Suggested option: Back up for hard drive

## Curriculum Outline

### GENERAL CORE COURSES—24 Credits

#### Core Block One

Four of the following courses and the two summer institute courses are required. Either DHS 8090 or DHS 8095 may be used to fulfill the Health Policy requirement.

COURSE #	COURSE TITLE	SEMESTER HOURS
DHS 8000	Competencies in the Clinical Care of Diverse and Special Populations	4
DHS 8030	Community Health Promotion and Disease Prevention	4
DHS 8090	Health Policy, Planning, and Management	4
OR		
DHS 8095	Global Health Policy	4
DHS 8110	Community, Environmental, and Occupational Health	4
DHS 8080	Conflict Resolution in Health Care*	4
DHS 8170	Leadership in Health Care*	4

\* DHS 8080 and DHS 8170 are required summer institute courses.

#### Core Block Two

Two of the following courses are required.

COURSE #	COURSE TITLE	SEMESTER HOURS
DHS 8800	Health Care Informatics	4
DHS 8810	Global Epidemiology	4
DHS 8400	Global Health Issues	4
DHS 8750	Patient Safety	4
DHS 8190	Health Care Education	4

## **INSTITUTE COURSES (REQUIRED)—12 CREDITS**

A total of 60 hours of classroom instruction and 36 weeks online are required.

COURSE #	COURSE TITLE	SEMESTER HOURS
DHS 8080	Conflict Resolution in Health Care	4
DHS 8170	Leadership in Health Care	4
HSP 9006	Evidence-Based Medical Practice	4

## **HPD RESEARCH COURSES—18 Credits**

COURSE #	COURSE TITLE	SEMESTER HOURS
HPH 7200	Ethics	3
HPH 7300	Biostatistics I	3
HPH 7310	Biostatistics II	3
HPH 7400	Research Design	3
HPH 7410	Qualitative Research Design	3
HPH 7500	Philosophy of Science	3
OR		
HPH 7600	Grant Writing and Publication	3

## **HEALTH SCIENCE RESEARCH COURSE—9 Credits**

COURSE #	COURSE TITLE	SEMESTER HOURS
HSP 9006	Evidence-Based Medical Practice	4
HSP 9007	Research Practicum*	5

\*HSP 9007 is a required winter institute course.

## **COMPREHENSIVE EXAM—0 Credits**

COURSE #	COURSE TITLE	SEMESTER HOURS
HSP 9008	Comprehensive Exam	0

## **DISSERTATION—12 Credits**

COURSE #	COURSE TITLE	SEMESTER HOURS
HSP 9009	Dissertation	12

## **Doctor of Philosophy in Health Science Course Descriptions**

### **DHS 8000—Professional Competencies in the Clinical Care of Diverse and Special Populations**

This course includes a discussion and analysis of the impact of ethnic and cultural issues on health care delivery systems. An in-depth analysis of the barriers faced by health care providers when presented with a diverse ethnic population is presented. Critical analysis of the different cultural perceptions of disease and treatment is given, and the need for developing cultural sensitivity and competency is explored. The student is expected to gain knowledge of cultural differences and the need to respect the background of the patient when formulating treatment plans. The student will be required to research a chosen topic on a diverse population and develop a paper regarding their impact on the health care system.

### **DHS 8030—Community Health Promotion and Disease Prevention**

This course develops the knowledge and skills needed to work with communities to improve health status of the population. Major topics will include health promotion and disease prevention. Special emphasis will be placed on the Healthy People 2010 initiatives. Students will be required to complete a paper of at least 20 pages based on an intervention strategy from Healthy People 2010. The paper will include an introduction, review of the literature, discussion, and conclusion in chapter form.

### **DHS 8080—Conflict Resolution in Health Care**

This course examines and analyzes the

nature and dynamics of human conflict within civil societies. Emphasis is placed on conflicts within and among governments and public sector agencies and between the health provider, patients, and medical institutions. Students will be expected to take an active role in the course and develop their own strategies for dealing with conflict. A paper will be required that details and analyzes a conflict situation in the student's work or other environment and how the conflict was resolved.

### **DHS 8090—Health Policy, Planning, and Management**

This course critically examines the dynamics of health care in the United States. The student is expected to analyze the health care industry and contrast non-profit and for-profit health care delivery systems. An exploration of the ramifications of health care reform and the impact on institutions and individuals will be undertaken. The concepts of cost containment and long-term care will be analyzed. The student will be expected to write a paper on health care reform and managed care that is at least 10 pages in length and provides an informed opinion on future directions of health care reform. The paper should address the question new directions managed care may take and what the future of health care reform may be.

### **DHS 8095—Global Health Policy**

Globalization affects all sectors, including health care, and understanding key policy issues is essential in the study of global health. This course examines the health policy issues confronting international health organizations, financial institutions,

governments, and specific populations. It reviews the processes that influence the development and implementation of policies and examines specific topics related to HIV/AIDS, conflict, infectious disease, smoking, concerns of food distribution, reproductive health/safety, and other major global health concerns.

**DHS 8110—  
Community Environmental  
and Occupational Health**

Issues such as air and water quality and waste management will be examined. OSHA will be examined and analyzed for its impact on health and health care. Trends in environmental and occupational health legislation will be examined for their impact potential. Students will participate by contacting one of their senators or house representatives for an environmental statement and then write a critical analysis.

**DHS 8170—  
Leadership in Health Care**

This course explores the various methods of leadership and management, both in and out of health care, and their impact on productivity, profitability, and employee satisfaction. Critical analysis of the different types of leadership and management theories is given and the need for developing a leadership plan is explored. The student is expected to gain knowledge of the various types of leaders and systems and will be required to research and develop a paper on a specific leadership theory.

**DHS 8190—Health Care Education**

This course explores the various theories and applications of adult education in the practice of training, profes-

sional education, and postprofessional education of medical personnel. Critical analysis of the different methods of teaching and training health care professionals is accomplished through discussion, research, investigation, journal development, and assignments. The capstone of the course will be to develop a 10-page paper on a specific method of educating health care professionals. Chat sessions and discussion boards are a required portion of this course.

**DHS 8400—Global Health Issues**

Global health care is an emerging priority for health professional education programs and clinical practice. It is essential for all health care professionals to understand the impact of global health issues on health care and international economic stability. This course explores the many facets of global health to expose the student to the complexity of the concepts that impact health care in developing and developed countries.

**DHS 8750—Patient Safety**

This course is an in-depth study of the concepts and practices related to patient safety in the United States health care system, enabling students to apply them in the context of professional practice. The course will provide an overview of the origins of the patient safety movement, its rise to public awareness and as a national policy initiative, the scope and magnitude of medical error in U.S. health care today, and current practices for improvement.

**DHS 8800—Health Care  
Informatics**

The application of computers and technology in health care has become

increasingly critical to patient care over the past two decades. There is no area of health care that does not rely on this discipline to some extent. This course explores the field of informatics and technology in health care. Emphasis will be placed on applications that directly impact health care delivery. Through assigned readings, a research paper, a special demonstration project, discussion board postings, and group chat sessions, the learner will be expected to demonstrate a broad knowledge of health care informatics, technology applications, and educational needs, as well as present his or her own experiences.

#### **DHS 8810— Global Epidemiology**

This course emphasizes the underlying concepts of the epidemiologic approach as it relates to pertinent global health issues. The student will be introduced to principles and methods of epidemiologic research. These include study designs, measures of frequency association, impact, and sources of error. Application to global health and public health strategies for disease prevention, surveillance, and control are discussed.

#### **HSP 9006—Evidence-Based Medical Practice**

This course provides a working knowledge of evidence-based medicine. Cases will be used as the backbone of this course to assist the student in analyzing data to justify the treatments used in clinical practice. Students will also learn how to critically appraise the literature, evaluate diagnostic test performance, design clinical pathways and standards of care, and implement evidenced-based medicine findings in their own clinical or administrative setting. Starting winter 2011, students will

need to take HSP 9006 only when it is offered in the online format.

#### **HPH 7200—Ethics**

Health care professionals are required to act morally and ethically. This course is designed to expand the student's basic understanding of ethics to promote ethical awareness and enable students to derive better health care decisions that reduce risk of potential ethical consequence. By exposing them to bioethics and controversial ethical issues typically encountered in current health care practice, students are able to practice making difficult decisions. Students will synthesize and implement strategies for applying morals, values, and ethics systematically in the various settings in which health care is delivered. Considering the perspectives of all stakeholders and the role of the health care provider, patient advocate, professional, and consumer of medical care, students will gain workable knowledge of contemporary ethical issues and appreciate that ethics permeate the majority of decisions made in health care.

#### **HPH 7300—Biostatistics I**

The application of quantitative techniques has expanded rapidly in medical decision making. The emphasis on evidence-based health care means that health care workers must be able to evaluate the results from published health care research studies. This course is the first of two courses designed to provide students with the knowledge of quantitative techniques. The course will cover descriptive statistics, parametric group comparison statistics, and basic nonparametric statistics and provide an introduction to linear modeling.

### **HPH 7310—Biostatistics II**

The aim of this course is to enable students to appreciate the richness of statistical science and to invite them to the concept of probabilistic thinking. Statistics is the science of the future. Any technique that they are going to learn will help them to understand the unknown better, and in turn, will increase their success in other courses and in future professional careers.

Principles of statistical inference build upon the course Fundamentals of Biostatistics. As such, a prerequisite for enrolling in this course is satisfactory completion of Fundamentals of Biostatistics. The goals of this course are threefold: (1) introduce the basic concepts of probability as well as methods for calculating the probability of an event, (2) assist students in developing an understanding of probability theory and sampling distributions, and (3) familiarize students about inferences involving one or two populations, ANOVA, regression analysis, and chi-square tests.

### **HPH 7400—Research Design**

This course will provide students with a fundamental understanding of the basic methods and approaches used in health care research. A major emphasis of the course will be on the conceptualization and design of research studies. The course will cover ethics, formulation of research questions, study design, reliability, validity, sampling, measurement, and interpretation of research findings. It will prepare students to critically evaluate published literature, and to design sound research studies. The course will be both theoretical and applied. Students will be challenged to apply the theoretical concepts presented in

the classroom and in the readings to design a study to address a health-related issue of their choice.

### **HPH 7410—Qualitative Research Design**

This course will focus primarily on the knowledge and skill competencies needed to conduct qualitative research successfully. In this pursuit, students will immerse themselves in the epistemological, theoretical, ethical, methodological, and procedural understanding of qualitative research; apply this knowledge to the conceptualization and conduct of qualitative research; report the findings of the research in the form of a research article; and appraise the quality of such qualitative research products. Upon completion of the course, students will demonstrate that they have mastered the basic competencies needed to create, plan, and complete a qualitative research dissertation.

### **HPH 7500—Philosophy of Science**

This course covers schools of thought in the philosophy of science. To address the need of laying the foundation for the generation and expansion of new professional knowledge that will guide evidence-based practice for the health professions, this course also covers topics on the acceptance of theories in the scientific community and epistemology of applied scientific inquiry. This course is designed to allow Ph.D. students in the health professions to gain appreciation for the philosophical underpinnings of unity in science, to be able to apply philosophical frameworks and epistemological paradigms in their future research, and to, eventually, become creative researchers in their areas of practice.



### **HPH 7600—Grant Writing and Publication**

This course enables the students to gain an in-depth understanding of the essential components of a well-written research proposal that addresses an identified scientific problem and the process for submitting the proposal to an agency/organization to request funding support to study the problem. Students will become familiar with a number of funding sources (including federal and state governments, private foundations, and corporations that support vision or dental research projects) and learn to use a variety of resources to target potential funding sources. Students will also become familiar with grant-related terminology, as well as guidelines, rules, and regulations of awarding agencies, with particular focus on the National Institutes of Health (NIH) organization.

### **HSP 9007—Research Practicum**

Research Practicum requires students to conduct a research activity under faculty member supervision. Objectives include developing the ability to critically review literature, abstract salient points from literature and present them cogently, summarize conceptual and methodological issues in the literature, formulate a research problem derived from the literature, derive research hypotheses from research questions, develop a research methodology, test stated hypotheses, implement research methodology, analyze and interpret data, and write research in APA style.

### **HSP 9008—Comprehensive Exam**

The comprehensive examination is a written examination that students in the Doctor of Philosophy in Health Science will take after the comple-

tion of all the required coursework and before beginning the dissertation phase of the Ph.D. program. Successful completion of the comprehensive examination is required for students to move to advanced standing and begin dissertation research. Comprehensive exams are given two times per academic year. They will take place at the Summer Institute in Tampa, Florida, and the Winter Institute on the main campus in Fort Lauderdale, Florida. Students will register to take the comprehensive exam with the Department of Health Science prior to attending one of the institutes and will receive an examination number.

Students are only allowed to take the complete comprehensive exam once and must pass all three categories to move forward to the dissertation phase of the Ph.D. program. Following successful completion of the comprehensive examination, students can register for dissertation credits and begin the dissertation process.

Students who pass two of the three categories may retake the one failed category at the next scheduled institute. Students have one opportunity to pass the failed category. Students who do not pass two, or all three categories, have failed the comprehensive exam and will be referred to the Department of Health Science Committee for Student Progress (CSP) for possible dismissal from the Ph.D. program. The CSP then makes recommendations to the department chair. The department chair notifies the student of the decision by certified mail (return receipt requested) and by email with response requested. Students have the right to appeal the decision to the College of Allied Health and Nursing Appeals

Committee within five business days of notification from the chair of their department.

### **HSP 9009—Dissertation**

This includes the dissertation preparation seminar, proposal, dissertation, and oral defense. Students will conduct original research in an area of the student's expertise or concentration, as approved by the program chair and dissertation committee, and have verification of presentation or publication. The dissertation will culminate with an oral final defense, which will occur in person at the summer or winter institute, or on the main campus. The oral defense must be arranged at least 45 days in advance. Process and requirements are detailed in the *Dissertation Guide*.

On campus institutes—These one-week sessions are located either at the Health Professions Division complex on NSU's main campus in Fort Lauderdale, Florida; the NSU Student Educational Center in Orlando, Florida; or the NSU Student Educational Center in Tampa, Florida. Three such institutes are required to complete the Ph.D. degree. Starting winter 2011, students will need to take HSP 9006 only when it is offered in the online format. DHS 8080 and DHS 8170 will be offered as summer institutes. HSP 9007 will be offered as a winter institute.

## Nursing Department

The Nursing Department offers Bachelor of Science in Nursing (B.S.N.) and Master of Science in Nursing (M.S.N.) degree programs, a post-M.S.N. certificate program, and a Ph.D. in Nursing Education. The B.S.N. may be earned through an entry-level Bachelor of Science in Nursing track or an R.N. to B.S.N. or R.N. to M.S.N. completion track for registered nurses holding an associate's degree or diploma in nursing. The M.S.N. program has three tracks—nursing education, public/community health nursing, and health systems leadership. All programs focus on developing nursing professionals to assume leadership roles in the complex health care environment.

### Department Mission Statement

The mission of the Nova Southeastern University nursing department is to provide quality, professional undergraduate and graduate nursing education. We will prepare culturally sensitive and competent nursing leaders who have knowledge and skills that are relevant, futuristic, and responsive to rapidly changing health care trends. Education courses are provided in an environment that fosters scholarly inquiry, professional values, interdisciplinary collaboration, and community partnerships.

### Accreditation

Nova Southeastern University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097, telephone number: (404) 679-4501) to award associate's, bachelor's, master's, educational specialist, and doctoral degrees. The NSU Bachelor of Science

in Nursing and Master of Science in Nursing programs are accredited as of April 8, 2006, for a period of 5 years by the Commission on Collegiate Nursing Education (CCNE), (One Dupont Circle, NW, Suite 530, Washington, DC 20036-1120, telephone number: (202) 887-6791).

The Nova Southeastern University Baccalaureate Nursing Program is also accredited by the National League for Nursing Accrediting Commission, Inc. (NLNAC) 61 Broadway, 33rd Floor, New York, NY 10006, 800-669-1656.

## Undergraduate Courses of Study

### Option 1: Entry-Level Track

The entry-level track is designed for students who are seeking initial licensure as a registered nurse. Upon completion of 121 credits, the student is awarded a bachelor of science degree in nursing (B.S.N.) and is eligible to make application to sit for the national licensure examination for registered nurses (NCLEX-RN). The entry-level nursing track curriculum is completed following a minimum of 30 semester hours (or equivalent quarter hours) of specific undergraduate coursework. This coursework may be completed at a community college or another university. Upon completion of the 30 semester hours, the student may apply to the nursing program.

The remainder of the 91 semester hours may be completed within seven terms (three terms per year) in the nursing program. Each term is a combination of didactic and clinical courses. The department requires matriculants to complete the entire program. Individual requests for advanced placement, transfer of credit, or credit for experiential learning will be reviewed in line with college requirements.

### **Option 2: R.N. to B.S.N. Track**

This option is designed for the registered nurse holding an associate's degree or diploma from a hospital-based nursing school licensed in the United States who now wants to obtain a B.S.N. If the applicant does not hold this license, the license must be approved by the nursing department associate dean and the College of Allied Health and Nursing dean. Failure to comply will result in the accepted student's inability to continue with his or her coursework. Students may complete the general education requirements in conjunction with the R.N. to B.S.N. track. Students are awarded 61 semester hours of prior learning credits. Individual requests for advanced placement, transfer of credit, or credit for experiential learning will be reviewed in line with college requirements. Although the track may be completed in as little as five terms, some students elect to spread the coursework out over a longer period of time.

### **Option 3: R.N. to M.S.N. Track**

This option is designed to meet the educational needs of the registered nurse who wants to accelerate the process in obtaining a B.S.N. and an M.S.N. Registered nurses may complete the first three terms through our online track or through the combination on-site and online track offered at the main campus in Fort Lauderdale or the student educational centers in Fort Myers and Orlando. Registered nurses receive 61 prior learning credits for their licensure. Upon evaluation of transcripts, additional transfer credits for general education courses completed at a college or university may be awarded. Completion of all general education courses is a requirement

prior to beginning the M.S.N. courses. Students will transition to the M.S.N. courses after meeting the requirements for the M.S.N. program.

### **B.S.N. Program Goals**

The goal of the Nova Southeastern University Bachelor of Science in Nursing degree program is to graduate nurses prepared to

- integrate knowledge, theory, and evidence-based research into current nursing practice
- assume a leadership role as the registered professional nurse in health care systems and diverse community settings
- engage in activities for continued professional growth

### **Entry-Level B.S.N. Track Admissions Requirements**

Applicants must have completed a minimum of 30 semester hours (or equivalent quarter hours) of specific undergraduate coursework from a regionally accredited college or university prior to matriculation into the nursing program. Other requirements include

- completion of each prerequisite course with a grade of C or higher
- overall GPA of 2.75 or higher on a 4.0 scale
- no Ds, Fs, or Ws in science courses
- two letters of recommendation from individuals other than relatives (academic instructors, professors, or advisers)

Your completed application must be received no later than May 1 to be considered for admission for the August class and October 1 to be considered for the January class.

If, at any time, you wish to withdraw your application from consideration, please do so in writing. Direct this correspondence to

Nova Southeastern University  
College of Allied Health and Nursing  
Nursing Department Admissions  
3200 South University Drive  
Fort Lauderdale, Florida  
33328-2018

All applicants who are accepted must submit official transcripts of all completed coursework to the NSU EPS Nursing Department Admissions address that follows, in its entirety. It is the responsibility of the applicant to ensure that arrangements are made for these transcripts to be sent.

If applicant attended or is a graduate of a foreign institution, all coursework from the foreign institution must be evaluated for U.S. institutional equivalence. The official evaluation must be sent directly from the evaluation service to the EPS. See the Application Procedure section for the names of evaluation services.

### **Entry-Level B.S.N. Application Procedures**

- All applicants must submit a completed application form to Nova Southeastern University, along with a \$50, nonrefundable application fee.
- Send your completed application to  
Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
Nursing Department  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905
- Your completed application must be received no later than May 1 in

order to be considered for admission for the August entering class and October 1 to be considered for the January class.

- If, at any time, you wish to withdraw your application from consideration, please do so in writing. Direct this correspondence to

Nova Southeastern University  
College of Allied Health and Nursing  
Nursing Department Admissions  
3200 South University Drive  
Fort Lauderdale, Florida  
33328-2018

- One official copy of your academic transcript must be sent directly from each college, university, or professional school that you have attended to the NSU EPS. Transcripts must be official. The school seal must be imprinted or embossed on the transcript, which should be forwarded in a sealed envelope, directly from the institution, in order to be considered an official transcript. Photocopies and facsimiles will not be accepted. A transcript is required for each college, university, or professional school attended, even though transfer credit from one college may appear on another college's transcript.
- If applicant attended or is a graduate of a foreign institution, all coursework from the foreign institution must be evaluated for U.S. institutional equivalence. The official evaluation must be sent directly from the evaluation service. For evaluations, please contact one of the following:
  - World Education Services  
P.O. Box 745  
Old Chelsea Station  
New York, New York 10113-0745

(212) 966-6311

[www.wes.org](http://www.wes.org)

· Josef Silny & Associates

7101 SW 102nd Avenue

Miami, Florida 33173

(305) 273-1616

(305) 273-1338 fax

[www.jsilny.com](http://www.jsilny.com)

[info@jsilny.com](mailto:info@jsilny.com)

· Educational Credential Evaluators

P.O. Box 514070

Milwaukee, Wisconsin 53203-3470

(414) 289-3400

[www.ece.org](http://www.ece.org)

- Applicants must submit two letters of recommendation from individuals other than relatives (academic instructors, professors, or advisers)

### **Entry-Level Track Tuition and Fees**

- Tuition for the 2010–2011 academic year (subject to change by the board of trustees without notice): \$19,335 for Florida residents and \$21,225 for out-of-state students. Tuition for the 2011–2012 academic year (subject to change by the board of trustees without notice): \$19,995 for Florida residents and \$21,795 for out-of-state students.
- A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.
- Acceptance fee is \$500. This fee is required to reserve the accepted applicant's place in the entering first-year class, but is not refundable in the event of a withdrawal. It is payable within two weeks of an applicant's acceptance.

- Deposit is \$250. This is due July 15 for August admission and November 15 for January admission.

- Preregistration fee is \$250. This is due August 1 for August admission and December 1 for January admission.

- Lab fee is \$150. This is due on or before registration.

- Students may incur additional costs in the program, including PDA, FNSA dues, uniforms, and lab coat.

The first semester's tuition and fees, less the \$1,000 previously paid, are due on or before registration day. Tuition for each subsequent semester is due on or before the appropriate registration day. Students will not be admitted until their financial obligations have been met.

Each student is required to carry adequate personal medical and hospital insurance. Students may avail themselves of the hospitalization insurance plan obtainable through the university.

The Office of Student Financial Assistance and the Nursing Department are eager to assist you in exploring all the grants and loans currently available for nursing students. Do not hesitate to ask for this help.

## Curriculum Outline—Nursing Entry-Level Track

### Undergraduate Course Requirements

General Education	Semester Hours
Written communication— Any written communications course	3
Social behavioral sciences—One PSYC, one SOC, Human Growth and Development	9
Humanities—Any ARTS, HIST, HUMN, LITR, PHIL, or foreign language	3
Natural/physical sciences—Anatomy and physiology, at least 6 semester hours with lab (5 semester hours of anatomy and physiology with 3 semester hours of biology may be substituted); chemistry, at least 3 semester hours; microbiology, at least 3 semester hours.	12
General education elective—Any college-level ENC, MAT, PSYC, SOC, ARTS, HIST, HUMN, LITR, PHIL, or foreign language course (courses beginning with 00 are not considered college level)	3

**Total General Education Credits 30**

General education courses may be completed at any accredited community college or university. Dual enrollment students should follow the Farquhar College of Arts and Sciences Curriculum Plan for Nursing Dual Enrollment Students.

Nursing Courses	Semester Hours
PHS 4904 Advanced Anatomy and Physiology for Health Professions	4
NUT 3000 Nutrition for the Health Professional	3
BHS 3110 Health Care Ethics	3
BHS or Nursing Elective *	3
NUR 3000 Transition to Baccalaureate Nursing Education	3
NUR 3029 Foundations of Health Assessment	3
NUR 3032 Foundations of Pathophysiology	3
NUR 3050 Theoretical Applications in Nursing Research	3
NUR 3130 Foundations of Professional Nursing Practice	6
NUR 3160 Introduction to Professional Nursing	3
NUR 3175 Nursing in Today's Health Care Environment	3
NUR 3005 Mathematical Applications for Nursing Practice	2
NUR 3131 Problem-Solving Strategies for Nursing Practice	1

NUR 3180	Primary Concepts of Adult Health Nursing	6
NUR 3191	Pharmacological Basis for Nursing Interventions I	2
NUR 3192	Pharmacological Basis for Nursing Interventions II	2
NUR 3200	Statistical Applications in Nursing Research and Evidence-Based Practice	3
NUR 3250	Concepts of Psychiatric-Mental Health Nursing	4
NUR 4020	The Nurse as a Leader and Manager	3
NUR 4030	The Business of Health Care	3
NUR 4110	Advanced Concepts of Adult Nursing II	6
NUR 4120	Advanced Concepts of Adult Nursing III	5
NUR 4130	Concepts of Maternal-Child Nursing and Families	5
NUR 4150	Concepts of Community-Based Nursing	4
NUR 4160	Genetics for Nursing Practice	2
NUR 4180	Nursing Practicum	6
<b>Total Nursing Credits</b>		<b>91</b>
<b>Total Degree Requirements</b>		<b>121</b>

\*Please see Bachelor of Health Science course descriptions starting on page 324.

## Entry-Level Course Descriptions

### BHS 3110—Health Care Ethics

This course is designed to introduce ethical thinking and concepts regarding health care to prepare the student with the essential vocabulary and thought processes to understand, evaluate, and participate in ethical decision making. (3 credits)

### NUR 3000—Transition to Baccalaureate Nursing Education

This course is designed to assist the adult learner in making the transition to the university setting and the role of the nursing student. During this course, students will be introduced to skills that facilitate success in achieving their educational goals at NSU. Opportunities for writing and

library searches will be provided. Use of technology as a tool for learning and time management are additional skills that will be emphasized. This class will involve active participation in cooperative group activities as well as individualized activities. **Corequisites:** NUR 3005, NUR 3160, PHS 4904 (3 credits: 3 didactic/0 clinical)

### NUR 3160—Introduction to Professional Nursing

This course introduces the student to the roles of the professional nurse including provider of care, manager of care, advocate, teacher, researcher, leader, and member of the profession. The history of nursing and how society views the nursing profession are discussed. The student is introduced to



the concepts of the Neuman's Systems Model as a theory of practice, as well as ethical and legal principles, medical terminology, sociocultural concepts, and political principles guiding the profession. **Corequisites:** NUR 3000, PHS 4904 (3 credits: 3 didactic/0 clinical)

### **NUR 3130—Foundations of Professional Nursing Practice**

This course introduces the entry-level student to the culture and practice of nursing. It examines the holistic concepts of individuals, environment, health, and nursing. It focuses on system variables of an individual including the physiological, psychological, social, cultural, cognitive, and spiritual domains. The important themes of primary, secondary, and tertiary prevention-as-intervention modalities; the client system's reaction to interpersonal, intrapersonal and extrapersonal stressors; and critical thinking are integrated throughout the course to prepare the students for practice. Students are introduced to health promotion, the legal and ethical issues, and contemporary trends in health care that impact nursing practice. The course provides fundamental nursing concepts, skills, and techniques of nursing practice and a firm foundation for more advanced areas of study. **Prerequisites:** NUR 3000, NUR 3005, NUR 3160, PHS 4904; **Corequisites:** NUR 3029, NUR 3032, NUR 3131 (6 credits: 3 didactic/3 clinical)

### **NUR 3005—Mathematical Applications for Nursing Practice**

This course builds upon previously learned mathematical skills needed to calculate pharmacological dosages for medication administration in the clinical setting. Students are taught dimensional analysis as the appropri-

ate problem-solving method to ensure safe medication administration to clients. Concepts included in this course include accurate calculation of oral and parenteral dosages and intravenous drip rates. **Corequisites:** NUR 3000, NUR 3160, PHS 4904 (2 credits: 2 didactic/0 clinical)

### **NUR 3029—Foundations of Health Assessment**

This course introduces beginning students to the foundational health assessment skills emphasizing data collection among the five variables of Neuman's Systems Model. Students will be expected to use beginning assessment skills in identifying pertinent data as they relate to physiological, psychological, sociocultural, spiritual, and developmental variables. Students will use this data to identify stressors in assigned clients and develop appropriate nursing interventions with an emphasis on health promotion for these clients. Contemporary trends in nursing practice and legal and ethical issues pertaining to health assessment will be introduced. **Prerequisites:** NUR 3160, PHS 4904; **Corequisites:** NUR 3032, NUR 3130 (3 credits: 3 didactic/0 lab)

### **NUR 3131—Problem-Solving Strategies for Nursing Practice**

This course introduces the new entry-level nursing student to problem solving and critical-thinking strategies needed for safe decision making in the delivery of nursing care. Using patient scenarios and/or case studies, students will use active-learning strategies in applying the nursing process in determining nursing care necessary for safe practice. **Corequisites:** NUR 3029, NUR 3032, NUR 3130 (1 credit: 1 didactic/0 clinical)

### NUR 3032—

#### Foundations of Pathophysiology

This course introduces the student to concepts of pathophysiology—emphasizing the physiological variable—and incorporates the psychological, sociocultural, spiritual, and developmental variables included in the Neuman's Systems Model. The student will begin to integrate and apply pathophysiological concepts to client care. The focus will be on stressors that penetrate the lines of resistance and cause instability in the client system. Contemporary trends, legal and ethical issues, and health promotion concepts pertaining to pathophysiological stressors will be introduced. **Prerequisites:** NUR 3000, NUR 3005, NUR 3160, PHS 4904; **Corequisites:** NUR 3029, NUR 3130 (3 credits: 3 didactic/0 clinical)

### NUR 3180—Primary Concepts of Adult Health Nursing

This course integrates nursing theory and practice using the nursing process and the Neuman's Systems Model with an emphasis on primary and secondary interventions. The focus is on adults and older adults experiencing medical or surgical stressors affecting physiological, psychological, sociocultural, spiritual, and developmental stability. Contemporary trends, legal and ethical issues, and health promotion will be discussed. Topics covered include selected alterations in immune, gastrointestinal, endocrine, renal, integumentary, and hematological systems. This course will include both a clinical and didactic component. **Prerequisites:** NUR 3029, NUR 3032, NUR 3130, NUR 3131; **Corequisite:** NUR 3191 (6 credits: 3 didactic/3 clinical)

### NUR 3191—Pharmacological Basis for Nursing Interventions I

This course focuses on the basic principles of pharmacology and therapeutics necessary for nursing practice throughout the life span. Concepts of drug efficacy, pharmacokinetics, mechanism of action, and drug interaction will be examined as they apply to primary, secondary, and tertiary prevention to assist clients to retain, attain, or maintain optimal system stability. Contemporary trends in administration and delivery of pharmacological therapies will be addressed. Emphasis will be placed on the pharmacological action of drugs on specific organ systems. Medications used in the treatment of gastrointestinal, hematological, immune, endocrine, and renal disorders will be explored. **Prerequisites:** NUR 3130, NUR 3131; **Corequisite:** NUR 3180 (2 credits: 2 didactic/0 clinical)

### NUR 3192—Pharmacological Basis for Nursing Interventions II

This course applies basic principles of pharmacology and therapeutics necessary for nursing practice throughout the life span to specific client disorders. Concepts of drug efficacy, pharmacokinetics, mechanism of action, and drug interaction will be examined as they apply to primary, secondary, and tertiary prevention to assist clients to retain, attain, or maintain optimal system stability. Contemporary trends in administration and delivery of pharmacological therapies will be addressed. Emphasis will be placed on the pharmacological action of drugs on specific organ systems. Medications used in the treatment of cardiovascular, respiratory, neurological, and musculoskeletal disorders will be explored. **Prerequisites:** NUR 3180, NUR 3191; **Corequisite:** NUR 4110 (2 credits: 2 didactic/0 clinical)

### **NUT 3000—Nutrition for the Health Professional**

This course explores the various nutrients, their sources, digestion, absorption, metabolism, interaction, storage, and excretion. Current research is presented against a background of basic nutritional concepts. Special emphasis is given to the role nutrition plays in the current health care delivery system and how nutrition can be implemented in health promotion and health maintenance. **Prerequisite:** NUR 3130 (3 credits: 3 didactic/0 clinical)

### **NUR 4110—Advanced Concepts of Adult Nursing II**

This course integrates nursing theory and evidence-based practice using the nursing process and the Neuman's Systems Model with a focus on primary and secondary interventions. The focus is on adults and older adults experiencing medical or surgical stressors affecting physiological, psychological, sociocultural, spiritual, and developmental stability. Contemporary trends, legal and ethical issues, and health promotion will be discussed. Topics covered include selected alterations in musculoskeletal, respiratory, cardiovascular, peripheral vascular, and neurological systems. This course will include both a clinical and didactic component. **Prerequisites:** NUR 3180, NUR 3191; **Corequisite:** NUR 3192 (6 credits: 3 didactic/3 clinical)

### **NUR 3200—Statistical Applications in Nursing Research and Evidence-Based Practice**

This course introduces biostatistical methodology and applications that can be used to draw practical conclusions regarding empirical data

pertaining to nursing and patient care. Concepts, techniques, and methods used in the description and analysis of data and statistical inference are presented. Statistical topics studied include frequency distributions, measures of central tendency (descriptive statistics), statistical graphs and charts, binomial and normal distributions, probability, confidence intervals, ANOVA, hypothesis testing, and correlation. **Prerequisite:** NUR 3180 (3 credits: 3 didactic/0 clinical)

### **NUR 4130—Concepts of Maternal-Child Nursing and Families**

This course integrates nursing theory and evidence-based practice using the nursing process and the Neuman's Systems Model with an emphasis on primary and secondary interventions. The focus is on the childbearing family and children experiencing stressors affecting physiological, psychological, sociocultural, spiritual, and developmental stability. Contemporary trends, social justice issues, and legal and ethical issues, as well as health promotion and risk reduction will be discussed. Topics covered include the family as client, care of the pregnant woman, and complex nursing care of children experiencing stressors of selected body systems. This course will include both a clinical and didactic component. **Prerequisites:** NUR 3192, NUR 4110 (5 credits: 3 didactic/2 clinical)

### **NUR 3050—Theoretical Applications in Nursing Research**

This course introduces concepts of critical analysis and outcomes research. Students will analyze the scientific merit of quantitative and qualitative research reports with an emphasis on application to, and implication for, evidence-based nursing practice as

it relates to primary, secondary, and tertiary preventions/interventions. Students will also be exposed to the contemporary trends and legal and ethical issues guiding the research process. **Prerequisites:** NUR 3200, NUR 4110 (3 credits: 3 didactic/0 clinical)

### **NUR 3175—Nursing in Today's Health Care Environment**

This course explores contemporary trends in health care delivery systems and professional nursing practice. Students will integrate knowledge from previous courses, further exploring health care system quality and safety, evidenced-based practice, technology, informatics, and the nurse's role in today's health care delivery system. This course examines the relationships between quality of care, cost of care, and safety, as well as the regulatory effects on patient care and cost. Students will develop skills to address relevant issues within today's health care delivery system. Trends in health care informatics are explored and the effects of nursing informatics on communication and safety will be analyzed. **Prerequisites:** NUR 3250, NUR 4020, NUR 4150; **Corequisite:** NUR 4180 (3 credits)

### **NUR 3250—Concepts of Psychiatric-Mental Health Nursing**

This course applies nursing theory and evidence-based practice using physiological, psychological, sociocultural, spiritual and developmental theories to develop primary, secondary, and tertiary interventions to attain and maintain optimal mental health across the life span. The focus is on designing nursing strategies that support mental health and wellness and reduce symptomatology following a reaction to stressors. Contemporary trends in treatment and mental health

promotion will be emphasized. The legal and ethical issues pertaining to intrapersonal, interpersonal, and extrapersonal stressors of the psychological variable will be discussed. Students will also reflect on their own behaviors and methods of communication. This course will include both a clinical and didactic component. **Prerequisites:** NUR 3029, NUR 3032, NUR 3130, NUR 4110, NUR 4130; **Corequisite:** NUR 4150 (4 credits: 3 didactic/1 clinical)

### **NUR 4150—Concepts of Community-Based Nursing**

This course provides the foundation for developing and using Neuman's Systems Model and epidemiological theory and concepts in planning and implementing primary, secondary, and tertiary levels of prevention for at-risk aggregates and communities. It focuses on the process of conceptualizing individuals, families, groups, and communities within their environments. Students will learn to facilitate health care delivery to aggregates and communities of diverse cultures, using effective communication, negotiation, problem-solving skills, and collaboration with the interdisciplinary health care team and members of the community. Students will demonstrate an ability to evaluate health and wellness within primary, secondary, and tertiary levels of prevention using Neuman's Systems Model and principles of evidence-based practice. Contemporary trends in community-based nursing practice will be discussed. Students will also examine the economic, sociocultural, legal, and ethical influences on community-based nursing practice. **Prerequisites:** NUR 4110, NUR 4130; **Corequisite:** NUR 3250 (4 credits: 3 didactic/1 practicum)

### **NUR 4020—The Nurse as a Leader and Manager**

This theory-based nursing course is designed to assist the nursing student to focus on basic concepts that relate to leadership; management; and working with individuals, families, groups, and communities in providing nursing care. Using Neuman's Systems Model, students will view the collective staff as a client system and assess the intrapersonal, interpersonal, and extrapersonal stressors that may impact the functioning of the nursing unit. The legal and ethical issues regarding delegation, risk management, and client care will be discussed. Contemporary trends in leadership and management theories will be explored. **Prerequisites:** NUR 3180, NUR 3191, **Corequisites:** NUR 3192, NUR 3200, NUR 4110 (3 credits: 3 didactic/0 clinical)

### **NUR 4120—Advanced Concepts of Adult Nursing III**

This course integrates nursing theory and evidence-based practice using the nursing process and the Neuman's Systems Model with an emphasis on secondary and tertiary intervention. The focus is on adults and older adults experiencing acute and chronic multi-system stressors affecting physiological, psychological, sociocultural, spiritual, and developmental stability. Students will apply previously learned theoretical concepts and critical care skills in complex settings. Contemporary trends, legal and ethical issues, and health promotion will be emphasized as it pertains to the care of clients with multiple needs. This course will include both a clinical and didactic component. **Prerequisites:** NUR 4110,

NUR 4150; **Corequisite:** NUR 4030 (5 credits: 3 didactic/2 clinical)

### **NUR 4030— The Business of Health Care**

This web-enhanced course examines the financial environment of the health services industry and how it affects today's nurse manager role. Students examine the principles of financial accounting and budgeting. This course presents the concepts of cost and revenue, basic vocabulary, processes, functions, and reports commonly seen in health care environments. This includes types of budgets and considerations for and use of human and material resources. **Prerequisite:** NUR 3250; **Corequisite:** NUR 4120 (3 credits: 3 didactic/0 clinical)

### **NUR 4160—Genetics for Nursing Practice**

This course will focus on providing students with a fundamental understanding of human genetics and its role in pathophysiology, diagnosis, and management of disease. Students will be introduced to basic concepts in human genetics that contribute to an understanding of nursing or related health care. They will be asked to apply knowledge of inheritance and immunogenetics in predicting the possible effect of genetics on disease processes. This course will also discuss the ethical, social, political, and economical impact of selected genetic diseases, DNA-based genetic diagnoses, and gene therapy. **Corequisite:** NUR 4130 (2 credits: 2 didactic/0 clinical)

### **NUR 4180—Nursing Practicum**

This seminar/clinical capstone course synthesizes all previously learned knowledge, integrating the concepts of physiological, psychological, socio-

cultural, developmental, and spiritual variables as they pertain to client care. The student will focus on the synthesis and integration of complex concepts of nursing knowledge related to clinical practice and leadership and management skills. Within the seminar setting, students will apply Neuman's Systems Model to identify client stressors and discuss ways to develop primary, secondary, and tertiary prevention/intervention strategies to attain, maintain and retain stability within client care systems. Students will apply leadership skills and client care management theories in delegating, supervising, and evaluating other members of the health care team. The student will work with a registered nurse preceptor and other members of the health care team. **Prerequisite:** Completion of all prior clinical and didactic courses; **Corequisite:** NUR 3175 (6 credits: 2 didactic/4 clinical)

#### **PHS 4904—Advanced Anatomy and Physiology for Health Professions**

This course is a survey course of human physiology and functional anatomy. The physiology portion of the course is intended to provide nursing students with an understanding of the basic physio-chemical concepts and physiological principles underlying the development, maintenance, and propagation of life. Topics covered include basic examinations of cellular processes; membrane mechanisms; and a system-based approach to physiological concepts specific to the nervous, muscular, respiratory, endocrine, gastrointestinal, cardiovascular, immune, renal, and reproductive systems. **Corequisites:** NUR 3000, NUR 3005 (4 credits: 3 didactic/1 lab)

#### **Nursing Elective**

Undergraduate nursing electives may be offered at the discretion of the department.

#### **R.N. to B.S.N. Track Admissions Requirements**

- overall GPA 2.5 or higher on a 4.0 scale
- proof of current registered nurse (R.N.) licensure

Licensure must remain current throughout the program. Students who do not hold a United States (U.S.) nursing license must receive prior approval from the department chair and College of Allied Health and Nursing dean for admission into the program.

#### **R.N. to B.S.N. Application Procedures**

- Applicants must submit a completed application form to Nova Southeastern University, along with a \$50, nonrefundable application fee. Send your completed application to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
Nursing Department  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905.

- The nursing department has rolling admissions for the R.N. to B.S.N. track. Candidates must submit all applications and transcripts by August 15 for priority consideration for the August entering class and by December 15 for priority consideration for the January entering class. Applications are accepted year round for R.N. to B.S.N. entering classes.

- If, at any time, you wish to withdraw your application from consideration, please do so in writing.

Direct this correspondence to

Nova Southeastern University  
College of Allied Health and Nursing  
Nursing Department Admissions  
3200 South University Drive  
Fort Lauderdale, Florida  
33328-2018

- Proof of current registered nurse (R.N.) licensure is required. Licensure must remain current throughout the program.
- One official copy of your academic transcript must be sent directly from each college, university, or professional school that you have attended to NSU's EPS. Transcripts must be official. The school seal must be imprinted or embossed on the transcript, which should be forwarded in a sealed envelope, directly from the institution, in order to be considered an official transcript. Photocopies and facsimiles will not be accepted. A transcript is required for each college, university, or professional school attended, even though transfer credit from one college may appear on another college's transcript.
- If applicant attended or is a graduate of a foreign institution, all coursework from the foreign institution must be evaluated for U.S. institutional equivalence. The official evaluation must be sent directly from the evaluation service. For evaluations, please contact one of the following:

- World Education Services  
P.O. Box 745  
Old Chelsea Station  
New York, New York 10113-0745  
(212) 966-6311  
[www.wes.org](http://www.wes.org)

- Josef Silny & Associates  
7101 SW 102nd Avenue  
Miami, Florida 33173  
(305) 273-1616  
(305) 273-1338 fax  
[www.jsilny.com](http://www.jsilny.com)  
[info@jsilny.com](mailto:info@jsilny.com)

- Educational Credential Evaluators  
P.O. Box 514070  
Milwaukee, Wisconsin 53203-3470  
(414) 289-3400  
[www.ece.org](http://www.ece.org)

- Applicants must submit two letters of recommendation from individuals other than relatives: one from academic instructor, professor, or adviser and one from a community associate.

### R.N. to B.S.N. Tuition and Fees

Tuition for the R.N. to B.S.N. track for academic years 2010–2011 and 2011–2012 is \$390 per credit hour. All tuition and fee amounts are subject to change by the board of trustees without notice. A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.

Acceptance fee is \$200. This fee is required to reserve the accepted applicant's place and is not refundable in the event of a withdrawal. This fee will be subtracted from the first term's tuition payment, which is due on registration day.

There are a number of national, Florida, and hospital grants available for the R.N. student. Additionally, student loan interest for nursing students is lower than for students seeking other degrees. The financial aid office and the nursing department are eager to assist you in exploring all possible financial aid options. Please do not hesitate to ask for this help.

## Curriculum Outline—R.N. to B.S.N. Track

### Undergraduate Course Requirements

General Education	Semester Hours
Written communication— Any written communications course	3
Social behavioral sciences—One PSYC, one SOC, Human Growth and Development	9
Humanities—Any ARTS, HIST, HUMN, LITR, PHIL, or foreign language	3
Natural/physical sciences—Credit with R.N. license	12*
General education elective—Any college-level ENC, MAT, PSYC, SOC, ARTS, HIST, HUMN, LITR, PHIL, or foreign language course (courses beginning with 00 are not considered college level)	3
<b>Total General Education Credits</b>	<b>30</b>

Cognate Courses	Semester Hours
PHS 4904 Advanced Anatomy and Physiology for Health Professions	4*
NUT 3000 Nutrition for the Health Professional	3*
BHS 3110 Health Care Ethics	3
BHS or Nursing Elective**	3
<b>Total Cognate Credits</b>	<b>13</b>

Nursing Courses	Semester Hours
NUR 3000 Transition to Baccalaureate Nursing Education	3
NUR 3013 Transition to Professional Nursing	3
NUR 3031 Pathophysiology	3
NUR 3030 Health Assessment	3
NUR 3020 Theoretical Foundations of Professional Nursing Practice	3
NUR 3200 Statistical Applications in Nursing Research and Evidence-Based Practice	3
NUR 3175 Nursing in Today's Health Care Environment	3



NUR 3050	Theoretical Applications in Nursing Research	3
NUR 4020	The Nurse as a Leader and Manager	3
NUR 4030	The Business of Health Care	3
NUR 4150	Concepts of Community-Based Nursing	4
NUR 4160	Genetics for Nursing Practice	2
<b>Total Nursing Credits Completed at NSU</b>		<b>36</b>
<b>Prior Learning Nursing Credits</b>		<b>42*</b>
<b>Total Nursing Credits</b>		<b>78</b>
<b>Total Degree Requirements</b>		<b>121</b>

General education courses may be completed at any accredited community college or university prior to admission to NSU. Once admitted, general education courses can be CLEP'd during the first 24 credits. Thereafter, general education courses must be taken at NSU.

Cognate and nursing courses must be completed at NSU.

\*Credit with R.N. license

\*\*Please see Bachelor of Health Science course descriptions starting on page 323.

## **R.N. to B.S.N. Course Descriptions**

### **NUR 3000—Transition to Baccalaureate Nursing Education**

This course is designed to assist the adult learner make the transition to the university setting and the role of the nursing student. During this course, students will be introduced to skills that facilitate success in achieving their educational goals at NSU. Opportunities for writing and library searches will be provided. Use of technology as a tool for learning and time management are additional skills that will be emphasized. This class will involve active participation in cooperative group activities as well as individualized activities. (3 credits)

### **NUR 3013— Transition to Professional Nursing**

This course focuses on the role transition to professional nurse as provider of care, manager of care, and member of the profession. The students will explore the history of nursing and how society views the nursing profession. Ethical and legal principles guiding the nursing profession are introduced. The concepts of the Neuman's Systems Model as a conceptual framework of nursing practice are investigated. (3 credits)

### **NUR 3030—Health Assessment**

This course focuses on health assessment skills, emphasizing data collection among the five variables of Neuman's Systems Model. Students will be expected to use assessment skills in identifying pertinent data as it relates to physiological, psychological, sociocultural, spiritual, and developmental variables. Students will use this data to identify stressors in assigned

clients and develop appropriate primary, secondary, and tertiary nursing preventions/interventions to attain, maintain, or retain lines of defense in these clients. (3 credits)

### **NUR 3020—Theoretical Foundations of Professional Nursing Practice**

This course focuses on the acquisition, evaluation, utilization, and interpretation of information designed to link Neuman's Systems Model as a foundation for nursing practice. Selected behavioral, social, and physical science theories impacting nursing practice will be explored as a basis for understanding self and others as individuals, families, groups, and communities. (3 credits)

### **NUR 3031—Pathophysiology**

This course emphasizes the physiological variable and incorporates the psychological, sociocultural, spiritual and developmental variables included in the Neuman's Systems Model. The student will integrate and apply pathophysiological concepts to client care in the development of primary, secondary, and tertiary interventions to attain, maintain, and retain the health state. The focus will be on maintaining lines of defense and stressors that penetrate the lines of resistance that cause instability in the client system. Contemporary trends, legal and ethical issues, and health promotion concepts pertaining to pathophysiological stressors will be explored. (3 credits)

### **NUR 3050—Theoretical Applications in Nursing Research**

This course introduces concepts of critical analysis and outcomes research. Students will analyze the scientific

merit of quantitative and qualitative research reports with an emphasis on application to, and implication for, evidence-based nursing practice as it relates to primary, secondary, and tertiary preventions/interventions. Students will also be exposed to the contemporary trends and legal and ethical issues guiding the research process. (3 credits)

### **NUR 3175—Nursing in Today's Health Care Environment**

This course explores contemporary trends in health care delivery systems and professional nursing practice. Students will integrate knowledge from previous courses, further exploring health care system quality and safety, evidenced-based practice, technology, informatics, and the nurse's role in today's health care delivery system. This course examines the relationships between quality of care, cost of care, and safety, as well as the regulatory effects on patient care and cost. Students will develop skills to address relevant issues within today's health care delivery system. Trends in health care informatics are explored and the effects of nursing informatics on communication and safety will be analyzed. (3 credits)

### **NUR 3200—Statistical Applications in Nursing Research and Evidence-Based Practice**

This course introduces biostatistical methodology and applications that can be used to draw practical conclusions regarding empirical data pertaining to nursing and patient care. Concepts, techniques, and methods used in the description and analysis of data and statistical inference are presented. Statistical topics stud-

ied include frequency distributions, measures of central tendency (descriptive statistics), statistical graphs and charts, binomial and normal distributions, probability, confidence intervals, ANOVA, hypothesis testing, and correlation. (3 credits)

### **NUR 4020—The Nurse as a Leader and Manager**

This theory-based nursing course is designed to assist the nursing student in focusing on basic concepts that relate to leadership; management; and working with individuals, families, groups, and communities in providing nursing care. Using Neuman's Systems Model, students will view the collective staff as a client system and assess the intrapersonal, interpersonal, and extrapersonal stressors that may impact the functioning of the nursing unit. The legal and ethical issues regarding delegation, risk management, and client care will be discussed. Contemporary trends in leadership and management theories will be explored. (3 credits)

### **NUR 4030—The Business of Health Care**

This web-enhanced course examines the financial environment of the health services industry and how it affects today's nurse manager role. Students examine the principles of financial accounting and budgeting. This course presents the concepts of cost and revenue, basic vocabulary, processes, functions, and reports commonly seen in health care environments, including types of budgets and considerations for and use of human and material resources. (3 credits)

### **NUR 4150—Concepts of Community-Based Nursing**

This course provides the foundation for developing and using Neuman's Systems Model and epidemiological theory and concepts in planning and implementing primary, secondary, and tertiary levels of prevention for at-risk aggregates and communities. It focuses on the process of conceptualizing individuals, families, groups, and communities within their environments. Students will learn to facilitate health care delivery to aggregates and communities of diverse cultures, using effective communication, negotiation, problem-solving skills, and collaboration with the interdisciplinary health care team and members of the community. Students will demonstrate an ability to evaluate health and wellness within primary, secondary, and tertiary levels of prevention using Neuman's Systems Model and principles of evidence-based practice. Contemporary trends in community-based nursing practice will be discussed. Students will also examine the economic, sociocultural, legal, and ethical influences on community-based nursing practice. **(4 credits: 3 didactic/1 practicum)**

### **NUR 4160—Genetics for Nursing Practice**

This course will focus on providing students with a fundamental understanding of human genetics and its role in pathophysiology, diagnosis, and management of disease. Students will be introduced to basic concepts in human genetics that contribute to an understanding of nursing or related health care. They will be asked to apply knowledge of inheritance and immunogenetics in predicting the possible

effect of genetics on disease processes. This course will also discuss the ethical, social, political, and economical impact of selected genetic diseases, DNA-based genetic diagnoses, and gene therapy. **(2 credits)**

### **Nursing Elective**

Undergraduate nursing electives may be offered at the discretion of the department.

### **R.N. to M.S.N. Track Admissions Requirements**

Students would declare the major R.N. to M.S.N. upon application to the program. Initial admission criteria would be the current admissions requirements for the R.N. to B.S.N. degree.

- Applicants must have a current/active United States R.N. license. If the applicant resides out of the United States and does not hold this license, the applicant's application must be approved by the nursing department chair and CAHN dean.
- Applicants must have an overall GPA of 2.5 or higher on a 4.0 scale.
- Students must complete all prerequisite general education courses prior to application to the R.N. to M.S.N. track.
- The student will complete three terms of B.S.N. coursework. At the end of three terms, the student must meet the 3.0 or higher GPA admissions requirement for the M.S.N. The 3.0 GPA will be calculated from the B.S.N. courses completed at NSU. Students enrolled in the R.N. to M.S.N. program who do not meet the 3.0 GPA requirements in the third term will be moved to the R.N. to B.S.N. program to complete the

two additional terms for the B.S.N. The program directors for the R.N. to B.S.N. and the graduate program director will review applicants at the completion of term III. Written notification to the student regarding their progression into the M.S.N. program will be done by the nursing department.

## **R.N. to M.S.N. Application Procedures**

- Applicants must submit completed application forms and a \$50, non-refundable application fee and all admission forms to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
P.O. Box 299000  
Fort Lauderdale, Florida 33329-9905

- The office of admissions works on a rolling basis. R.N. to M.S.N. candidates must submit all applications and transcripts by August 15 for priority consideration for the August entering class and by December 15 for priority consideration for the January entering class. Applications are accepted year round for the R.N. to M.S.N. entering classes.

- If, at any time, you wish to withdraw your application from consideration, please do so in writing. Direct this correspondence to

Nova Southeastern University  
College of Allied Health and Nursing  
Nursing Department Admissions  
3200 South University Drive  
Fort Lauderdale, Florida 33328-2018

- All applicants who are accepted must submit official transcripts of all completed coursework to the NSU EPS

Nursing Department Admissions. It is the responsibility of the applicant to ensure that arrangements are made for these transcripts to be sent.

- If applicant attended, or is a graduate of, a foreign institution, all coursework from the foreign institution must be evaluated for U.S. institutional equivalence. The official evaluation must be sent directly from the evaluation service. For evaluations, please contact one of the following:

World Education Services  
P.O. Box 745  
Old Chelsea Station  
New York, New York 10113-0745  
(212) 966-6311  
[www.wes.org](http://www.wes.org)

Josef Silny & Associates  
7101 SW 102nd Avenue  
Miami, Florida 33173  
(305) 273-1616  
(305) 273-1338 fax  
[www.jsilny.com](http://www.jsilny.com)  
[info@jsilny.com](mailto:info@jsilny.com)

Educational Credential Evaluators  
P.O. Box 514070  
Milwaukee, Wisconsin 53203-3470  
(414) 289-3400  
[www.ece.org](http://www.ece.org)

- Submit two letters of recommendation from individuals other than relatives, such as academic instructors, professors, or advisers.

## **R.N. to M.S.N. Tuition and Fees**

Tuition for the R.N. to B.S.N. track for academic year 2010–2011 is \$390 per credit hour.

Tuition for academic year 2011–2012 (subject to change by the board of

trustees without notice) is \$390 per credit hour for courses at the baccalaureate degree (B.S.N.) level and \$550 per credit hour for courses at the master's degree (M.S.N.) level. A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.

Acceptance Fee is \$200. This fee is required to reserve the accepted applicant's place in the entering first-year class. This advance payment will be deducted from the tuition payment

due on registration day, but is not refundable in the event of a withdrawal. It is payable within two weeks of an applicant's acceptance

There are a number of Florida and hospital grants available for the R.N. to M.S.N. student. Additionally, student loan interest for nursing students is lower than for students seeking other degrees. The financial aid office is eager to assist you to explore all possible financial aid options.

### Curriculum Outline—R.N. to M.S.N. Track

General Education	Semester Hours
Written communication— Any written communications course	3
Social behavioral sciences—One PSYC, one SOC, Human Growth and Development	9
Humanities—Any ARTS, HIST, HUMN, LITR, PHIL, or foreign language	3
Natural/physical sciences—Credit with R.N. license	12*
General education elective—Any college-level ENC, MAT, PSYC, SOC, ARTS, HIST, HUMN, LITR, PHIL, or foreign language course (courses beginning with 00 are not considered college level)	3
<b>Total General Education Credits</b>	<b>30</b>

Cognate Courses	Semester Hours
PHS 4904 Advanced Anatomy and Physiology for Health Professions	4*
NUT 3000 Nutrition for the Health Professional	3*
<b>Total Cognate Credits</b>	<b>7</b>

<b>Nursing Courses</b>		<b>Semester Hours</b>
NUR 3000	Transition to Baccalaureate Nursing Education	3
NUR 3013	Transition to Professional Nursing	3
NUR 3031	Pathophysiology	3
NUR 3030	Health Assessment	3
NUR 3200	Statistical Applications in Nursing Research and Evidence-Based Practice	3
NUR 3175	Nursing in Today's Health Care Environment	3
NUR 4150	Concepts of Community-Based Nursing	4
NUR 4160	Genetics for Nursing Practice	2
NUR 4175	Transition to Graduate Studies	9
NSG 5000	Advance Nurse Role	3
NSG 5100	Advanced Theoretical Foundations of Research	3
NSG 5110	Nursing Research I: Data Analysis as a Foundation for Decision Making	3
<b>Total Nursing Credits Completed at NSU</b>		<b>42</b>
<b>Prior Learning Nursing Credits</b>		<b>42*</b>
<b>Total Nursing Credits</b>		<b>84</b>
<b>Total B.S.N. Degree Requirements</b>		<b>121</b>
<b>Total M.S.N. Degree Requirements</b>		<b>30**</b>
<b>Total R.N. to M.S.N. Degree Requirements</b>		<b>151</b>

General education courses may be completed at any accredited community college or university. Cognate and nursing courses must be completed at NSU.

\*Credit with R.N. license

\*\*See M.S.N. Web page for course requirements.

## **Graduate Nursing Program**

### **Master of Science in Nursing (M.S.N.)**

The Master of Science in Nursing Program is an online degree program for graduates of Bachelor of Science programs with a major in nursing or other fields. Students who hold Registered Nurse (R.N.) licensure who enter the M.S.N. program without a B.S.N. degree will be required to enroll in NSG 4900 (Bridge Course in Nursing Concepts) in their first semester of admission to the M.S.N. program. This course is only offered in the fall term. Two tracks are offered: education and health systems leadership.

The M.S.N. education track prepares nurses for career paths in staff development, vocational-technical, or community college education. This degree serves as a foundation for doctoral study for those interested in teaching in B.S.N. or higher programs. All students in M.S.N. tracks take 15 semester hours of core foundational nursing courses online. An additional 21 semester hours of nursing education courses are required for this track, including 6 semester hours of nursing education practicum work applying what has been learned. These courses are taught online by nursing department faculty members with advanced preparation and extensive experience in higher education. Thus, a total of 36 semester hours are required to complete the M.S.N. education track; however, additional elective courses may be taken by students with special interests.

The M.S.N. health systems leadership track is designed for the future working nurse executive. This track allows the

student to meet professional aspirations and organizational commitments to accreditation, magnet status, and personal goals. All students in M.S.N. tracks take 15 semester hours of core foundational nursing courses online. An additional 21 semester hours of coursework in health systems leadership are taught by nursing department faculty members with advanced preparation and extensive experience in health systems and systems thinking. Thus, a total of 36 semester hours are required to complete the M.S.N. in Health Systems leadership track.

### **Admissions Requirements**

Prospective Master of Science in Nursing students are selected for admission based on application content, academic record, professional nursing licensure, and evaluation forms.

Admission to the M.S.N. program requires the following:

- a Bachelor of Science (B.S.) or a Bachelor of Arts (B.A.) degree from an accredited university
- a B.S./B.A. GPA of 3.0 on a 4.0 scale\*
- current, active U.S. nursing licensure (If applicant does not hold this license, the applicant's license must be approved by the nursing department chair and the dean of the College of Allied Health and Nursing.)
- application with writing sample, two evaluation (reference) forms and application fee

\*Students who enter the M.S.N. program without a B.S.N. will be required to enroll in NUR 4900 Transition to Advanced Nursing Practice in the first semester of



admission to the M.S.N. program. This course is only offered in the fall term. Students who have not completed a college-level statistics course (from a mathematics department) must complete one, receiving a C or better.

## Application Procedures

1. send signed application form, a writing sample, two evaluation (reference) forms, and a nonrefundable application fee of \$50 to

NOVA SOUTHEASTERN UNIVERSITY  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
Nursing Department Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida 33329-9905

2. have official transcripts from each college and university you've attended sent directly to the EPS from school attended
3. submit proof of current, active, professional nursing (R.N.) licensure from the jurisdiction of the practicum (Licensure must remain current throughout the program.)

## Tuition and Fees

Tuition for academic years 2010–2011 and 2011–2012 is \$550 per credit hour. An NSU student services fee of \$750 is required annually. All tuition charges and fees are subject to change by the board of trustees without notice.

## Academic Policies

The following academic policies apply to all students in the graduate nursing program.

## Transfer Credits

No more than 6 graduate credits may

be transferred into the M.S.N. program from other graduate programs. Courses will be evaluated for credit towards the M.S.N. degree by the program director, whose decision will be final. To be considered for credit, a course must have been taken at an accredited graduate program and be the equivalent of a course offered in the student's chosen track. The student must have earned a grade of B or higher in the course. The student must submit the syllabus of any course he or she is seeking credit for directly to the program director. Additional documentation may be required by the program director before credit may be granted. Only courses completed prior to matriculation in the M.S.N. program will be considered for transfer credit.

## Progression Requirements

Students must complete all core M.S.N. nursing courses prior to enrolling in specialty nursing courses.

To progress in the M.S.N. program, the student must take a minimum of one course per semester, with no more than one semester taken off per year. All coursework must be completed within five years. All courses must be completed with a minimum grade of B- for credit to be received toward the M.S.N. degree. A course may be repeated once if a grade less than B- is obtained. Only one repeated course can be applied toward the M.S.N. degree. A second course with a grade less than B- will preclude completion of the program and the student will be dismissed from the program.

A GPA of 3.0 or above must be maintained throughout the program in order for the student to progress. If the student's GPA falls below 3.0 he

or she will be on probation and must increase his or her GPA to 3.0 or above within the next semester attended to remain in the program. Otherwise, the student is automatically dismissed from the program.

Students who have been dismissed may petition the program director for reinstatement if a year has passed since the dismissal. The applicant is required to present adequate evidence that the factors that caused the prior inadequate academic performance have changed significantly so that there is reasonable expectation that the applicant can perform satisfactorily if permitted to resume his or her study. Readmission will be at the discretion of the program director.

### **Graduation Requirements**

To receive an M.S.N. degree all students must fulfill the following requirements:

- successfully complete a minimum of 36 semester hours of coursework
- satisfactorily complete the program requirements for the degree including all required courses for the chosen track with a minimum GPA of 3.0 and with no course with a grade below B- applied toward the degree
- apply for graduation
- have satisfactorily met all financial and library obligations
- receive a recommendation for graduation by the program director

### **Courses of Study**

The M.S.N. program offers two tracks of study: education and health systems leadership. While the core M.S.N. courses remain constant, courses for each track are specific to the area

of interest and are provided by the appropriate schools. Courses can be added to the student's program track to accommodate the student's overall interest, employment, and educational goals. A faculty adviser is available for individualized program advisement. Practicum courses allow the student to apply synthesized knowledge gained from all prior courses to an individualized experience in the chosen track.

## Curriculum Outline—M.S.N. Program

Core Courses		Semester Hours
NSG 5000	Advanced Nurse Role	3
NSG 5100	Advanced Theoretical Foundations of Nursing Research	3
NSG 5110	Research 1: Data Analysis as a Foundation for Decision Making	3
NSG 5120	Research 2: Translation of Interdisciplinary Evidence into Nursing Practice	3
NSG 5130	Health Care Policy, Organization, and Finance	3
<b>Total Core Courses</b>		<b>15</b>

In addition to the core M.S.N. courses, the following courses are required to complete the M.S.N. Education track:

M.S.N. Education Courses		Semester Hours
NSG 5300	Nursing Curriculum Development	3
NSG 5370	Introduction to Educational Concepts	3
NSG 5380	Educational Concepts 1: Principles of Instruction and Evaluation	3
NSG 5390	Educational Concepts 2: Synthesis and Application	3
NSG 5350	Roles and Responsibilities of Nurse Educators	3
NSG 5360	Nurse Educator Practicum	6
<b>Total Education Courses</b>		<b>21</b>

In addition to the core M.S.N. courses, the following courses are required to complete the M.S.N. Health Systems Leadership track:

M.S.N. Health Systems Leadership Courses		Semester Hours
NSG 5230	Nursing Decision Making in Complex Health Systems	3
NSG 5240	Nursing Governance	3
NSG 5340	Nursing Leadership Roles in Complex Health Systems	3
NSG 5270	Informatics and Data Analysis in Complex Health Systems	3
NSG 5250	Fiscal Management in Complex Health Systems	3
NSG 5490	Health Systems Leadership Nursing Practicum	6
<b>Total Health Systems Leadership Courses</b>		<b>21</b>

## **Post-Master of Science in Nursing Certificate (Post-M.S.N. Certificate)**

The Post-Master of Science in Nursing Program is an online certificate program for graduates of Master of Science programs with a major in nursing who hold Registered Nurse (R.N.) licensure. Only the nursing education track offers a Post-M.S.N. Certificate.

The post-M.S.N. education track prepares nurses who already hold an M.S.N. degree for career paths in staff development, vocational-technical, or community college education. Students in the post-M.S.N. education track take 21 semester hours of online and practicum nursing courses. These courses are taught by nursing department faculty members with advanced preparation and extensive experience in higher education. A total of 21 semester hours are required to complete the post-M.S.N. education track; however, additional elective courses may be taken by students with special interests.

### **Admissions Requirements**

Prospective Post-Master of Science in Nursing students are selected for admission based on application content, academic record, professional nursing licensure, and evaluation forms.

Admission to the post-M.S.N. program requires the following:

- Master of Science degree with a major in nursing
- M.S.N. GPA of 3.0

- current, active U.S. nursing licensure (If applicant does not hold this license, the applicant's license must be approved by the nursing department chair and the dean of the College of Allied Health and Nursing.)
- application with writing sample, two evaluation (reference) forms, and application fee

### **Application Procedures**

Applicants must submit

- signed application form with writing sample, two evaluation (reference) forms, and the nonrefundable application fee of \$50
- official transcripts from each college and university attended, sent directly from the school to the EPS address on the application
- Proof of current registered nurse (R.N.) licensure, in the jurisdiction of the practicum, which must remain current throughout the program

### **Tuition and Fees**

Tuition for academic years 2010–2011 and 2011–2012 is \$550 per credit hour. An NSU student services fee of \$750 is required annually. All tuition charges and fees are subject to change by the board of trustees without notice.

### **Academic Policies**

#### **Transfer Credits**

No credits may be transferred into the post-M.S.N. program from other graduate programs.

#### **Progression Requirements**

To progress in the post-M.S.N. program, the student must take a minimum of

one course per semester, with no more than one semester taken off per year. All coursework must be completed within five years. All courses must be completed with a minimum grade of B- for credit to be applied to the post-M.S.N. certificate. A course may be repeated once if a grade of less than B- is obtained. Only one repeated course can be applied toward the certificate. A second course with a grade less than B- will preclude completion of the program and the student will be dismissed from the program.

A GPA of 3.0 or above must be maintained throughout the program in order for the student to progress. If the student's GPA falls below 3.0 he or she will be on probation and must increase his or her GPA to 3.0 or above within the next semester attended to remain in the program. Otherwise, the student is automatically dismissed from the program.

Students who have been dismissed may petition the program director for reinstatement if a year has passed since the dismissal. The applicant is required to present adequate evidence that the factors that caused the prior inadequate academic performance have changed significantly so that there is reasonable expectation that the applicant can perform satisfactorily if permitted to resume his or her study. Readmission will be at the discretion of the program director.

## **Certificate Completion Requirements**

To receive a post-M.S.N. certificate, students must fulfill the following requirements:

- successfully complete a minimum of 21 semester hours of coursework
- satisfactorily complete the program requirements for the certificate with a minimum GPA of 3.0 and with no course with a grade below B- applied toward completion of the program
- apply for the certificate
- have satisfactorily met all financial and library obligations
- receive a recommendation for the certificate by the program director

## Course of Study

The online post-M.S.N. program offers one track of study: nursing education. Courses can be added to the student's program track to accommodate the student's overall interest, employment, and educational goals. A faculty adviser is available for individualized program advisement.

### Curriculum Outline—Post-M.S.N. Certificate Program

Course #	Course Name	Semester Hours
NSG 5300	Nursing Curriculum Development	3
NSG 5350	Roles and Responsibilities of Nurse Educators	3
NSG 5360	Nurse Educator Practicum	6
NSG 5370	Introduction to Educational Concepts	3
NSG 5380	Educational Concepts 1: Principles of Instruction and Evaluation	3
NSG 5390	Educational Concepts 2: Synthesis and Application	3
<b>Total Courses</b>		<b>21</b>

## M.S.N. Course Descriptions

### NUR 4900—Transition to Advanced Nursing Practice

This course is designed to assist the registered nurse with a non-nursing bachelor's degree to develop the knowledge and skills to transition into the Master of Science in Nursing (M.S.N.) program. The student will build upon current nursing experience and knowledge as well as previous baccalaureate education in order to demonstrate recommended competencies in baccalaureate nursing prior to beginning the M.S.N. coursework. (6 semester hours)

### NSG 5000—Advanced Nurse Role

This course introduces the R.N. to the advanced nurse role as leader, collaborator, change agent, advocate for population health, and scholar. Theories of leadership, change, and decision making are explored and

applied to health care delivery situations. Issues affecting population health—including communication, collaboration, information management, diversity, and ethics—are examined. Students are introduced to the importance of scholarship in the advanced roles of nursing. (3 semester hours)

### NSG 5100—Advanced Theoretical Foundation of Nursing Research

This course examines the relationship of theory to research and practice. Emphasis is placed on understanding the development, testing, and application of theory within the research process and nursing practice. Various approaches to the research process and the use of evidence in nursing practice are explored. Ethical foundations related to research are introduced. (3 semester hours)

### **NSG 5110—**

#### **Research I: Data Analysis as a Foundation for Decision Making**

This course focuses on the use of data/findings as a basis for clinical decision making. The roles of information management systems and data analysis software are applied to nursing research. Data are assessed related to nursing practice situations for their quality and rigor. Ethical issues associated with data management are explored. (3 semester hours)

### **NSG 5120—Research II:**

#### **Translation of Interdisciplinary Evidence into Nursing Practice**

This course focuses on the use of interdisciplinary evidence in nursing practice. The impact of interdisciplinary collaboration in research is emphasized. Strategies for disseminating synthesized evidence to promote improved population health outcomes are explored. Analysis of ethical considerations for decision making is addressed. (3 semester hours)

### **NSG 5130—Health Care Policy, Organization, and Finance**

This course focuses on providing the present and future nurse leaders with an understanding of health policy, finance, and the legal impacts on health care. Political advocacy and the health policy change process will be explored. This course will also review health care management, budgets, cost effectiveness, reimbursement, and fiscal accountability affecting health policy. (3 semester hours)

### **NSG 5350—Roles and Responsibilities of Nurse Educators**

This course introduces the student to the skills and knowledge associ-

ated with roles and responsibilities of the nurse educator. The environment, trends, policies, protocols, fiscal, ethical, and legal aspects of education will be explored. Systems thinking as it relates to the nurse educator and core competencies for nurse educators will both be examined. (3 semester hours)

### **NSG 5300—**

#### **Nursing Curriculum Development**

This course focuses on the process of curriculum development. Accreditation standards, trends in professional nursing practice, economic issues, and policy issues are analyzed within the context of curriculum development and program evaluation. Selected nursing and educational theories, principles, and techniques of curriculum development are explored. (3 semester hours)

### **NSG 5370—Introduction to Educational Concepts**

This course provides the conceptual basis for teaching and learning. The relationships between learning outcomes, learning styles, instructional strategies, assignments, activities, assessment, and evaluation in educational environments are identified. Strategies for promoting student success and classroom management are examined. Various educational environments are explored. Ethical considerations of instruction are included. (3 semester hours)

### **NSG 5380—Educational Concepts 1: Principals of Instruction and Evaluation**

This course builds on the educational concepts introduced in NSG 5370. Students apply these concepts in the design of instructional strategies,

assignments, activities, assessment, and evaluation for learning outcomes in various educational environments. The use of media and instructional technologies to achieve learning outcomes is explored. Methods to assess and evaluate learning outcomes are analyzed. (3 semester hours)

### **NSG 5390—Educational Concepts 2: Synthesis and Application**

This course assists students in synthesizing the educational concepts in the design and evaluation of courses and curricula. Instructional strategies related to the clinical setting are explored. Methods of evaluation of learning outcomes are developed. (3 semester hours)

### **NSG 5360— Nurse Educator Practicum**

This course provides an opportunity for students to analyze, synthesize, and utilize all prior courses in an educational environment. Students are mentored by preceptors who are experienced in educational roles in various settings. (6 semester hours)

### **NSG 5230— Nursing Decision Making in Complex Health Care Systems**

This course provides the student with an opportunity to utilize models, processes, and theoretical frameworks of decision making as a foundation for leadership activities in complex health care systems. Internal and external factors impacting decision making will be explored and analyzed. The influence of systems thinking, trend analysis, data, evidence quality, and interpersonal collaboration is examined. Ethical considerations of decision making are evaluated. (3 semester hours)

### **NSG 5240—Nursing Governance and Resource Management in Complex Health Systems**

This course focuses on the perspective of nursing governance from a global to a unit level. Governance models, human resource management, work environments, and best practices related to health systems leadership are explored. Self-governance models and human resource strategies in the practice environments are designed and applied. Ethical and legal issues related to governance and resource management are included. (3 semester hours)

### **NSG 5250—Fiscal Management in Complex Health Systems**

This course focuses on fiscal management impacting nursing practice and health care delivery. Students will develop foundational knowledge applicable to fiscal management and develop strategies to improve decision making. Students will apply fiscal management principles to a current issue. The relationship between fiscal and ethical responsibility is examined. (3 semester hours)

### **NSG 5270—Information Management and Data Analysis in Complex Health Systems**

This course provides the student with an opportunity to examine various health care informatics theories and policies related to the entire implementation process of information systems in a complex health care system. During the course, students will apply concepts learned to the ethical use of data, information, and knowledge in clinical practice and research. Students will also analyze the critical elements in the life cycle of information and patient-care technology systems. (3 semester hours)



### **NSG 5340—Nurse Leadership Roles in Complex Health Systems**

This course focuses on nursing leadership roles within a complex health system. The student will explore leadership, change, and organizational culture theories, applying them to systems thinking. Students will develop strategies for introducing and sustaining change. Ethical and legal concerns related to the nursing leadership role are explored. (3 semester hours)

### **NSG 5490—Health Systems Leadership Nursing Practicum**

This course provides an opportunity for the student to analyze, synthesize, and utilize all content from prior courses in a nursing leadership environment. Students are mentored by preceptors that are experienced in leadership roles in complex health systems. (6 semester hours)

## **Doctor of Philosophy in Nursing Education (Ph.D.)**

The Doctor of Philosophy (Ph.D.) in Nursing Education is an online degree program for graduates of accredited master of science programs who have a major in nursing and who hold Registered Nurse (R.N.) licensure.

The program is designed to prepare nurse scholars to conduct research supporting nursing education, to provide scholarly service at academic facilities and to the professional and health care communities as nurse educators, and to teach nurses and potential nurses in the academic and clinical setting. Graduates of the program will be able to assess, plan, implement, and evaluate teaching-learning strategies and

use traditional, as well as advanced technological, educational strategies.

All students in the Ph.D. track take 9 credits of core courses within an interdisciplinary setting. Courses within the nursing department include: 12 semester hours of nursing science and nursing theory courses, 15 semester hours of advanced nursing research courses, 15 semester hours of higher education, and a minimum of 9 semester hours of dissertation.

For further information, call the nursing department at (954) 262-1983 or 800-356-0026, ext. 21983.

### **Admissions Requirements**

Prospective Ph.D. in Nursing students are selected for admission based on application content, academic record, professional nursing licensure, and evaluation forms.

Admission to the Ph.D. program requires

- current, active United States R.N. license (If applicant does not hold this license, the applicant's license must be approved by the nursing department chair and the dean of the College of Allied Health and Nursing.)
- completion of an M.S. program with a major in nursing or an M.S.N. degree from an accredited program
- overall GPA of 3.5 in the candidate's master's or post-master's degree program in nursing
- an application, curriculum vita, a writing sample that should include an unpublished or published paper, two evaluation (reference) forms, and an application fee

- attendance at a mandatory, week-end, summer orientation session and intensive, annual, one-week, summer, on-campus academic sessions, usually held in May or in June

## **Application Procedures**

1. send signed application form, a writing sample, two evaluation (reference) forms, and the nonrefundable application fee of \$50 to

NOVA SOUTHEASTERN UNIVERSITY  
Enrollment Processing Services (EPS)  
College of Allied Health and Nursing  
Nursing Department Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida 33329-9905

2. have official transcripts from each college and university you've attended sent directly to the EPS from the school attended
3. submit proof of current, active, professional nursing (R.N.) licensure, from the jurisdiction of the practicum (Licensure must remain current throughout the program.)

## **Tuition and Fees**

Tuition for academic years 2010–2011 and 2011–2012 (subject to change by the board of trustees without notice) is \$700 per credit hour. An NSU service fee of \$750 is required annually.

## Curriculum Outline—Ph.D. Program

Core Courses		Semester Hours
HPH 7200	Ethics	3
HPH 7300	Biostatistics I	3
HPH 7310	Biostatistics II	3
<b>Total Core Courses</b>		<b>9</b>

Nursing Courses		Semester Hours
NSG 7000	Theory Development	3
HPH 7500	Philosophy of Science	3
NSG 7120	Health Care Policy	3
NSG 7230	Health Care Leadership	3
<b>Total Nursing Courses</b>		<b>12</b>

Research Nursing Courses		Semester Hours
HPH 7400	Quantitative Research Design	3
HPH 7410	Qualitative Research	3
HPH 7600	Grant Writing and Publication	3
NSG 7210	Evidence-Based Evaluation	3
NSG 7250	Scholarship and Applied Research	3
NSG 7310	Doctoral Seminar I	1
NSG 7320	Doctoral Seminar II	1
NSG 7330	Doctoral Seminar III	1
<b>Total Research Nursing Courses</b>		<b>12</b>

Cognates		Semester Hours
NSG 7140	Theories of Education	3
NSG 7150	Instructional Design and Curriculum Development	3
NSG 7220	Higher Education Leadership	3
NSG 7240	Tests and Measurements	3
<b>Total Cognates</b>		<b>12</b>

Dissertation		Semester Hours
NSG 7340	Dissertation	9
<b>Total Credits</b>		<b>60</b>

There is an annual, on-campus, one-week residency requirement.

## Ph.D. Course Descriptions

### NSG 7000—Theory Development

This course examines the nature of nursing knowledge and the development of its underpinnings. Selected approaches to concept/theory development, analysis, and evaluation are examined and applied. The linkages among theory, research, and practice in the development of nursing knowledge are explored. This course prepares students to select a theoretical framework for testing in their dissertation. (3 semester hours)

### NSG 7120—Health Care Policy

This online course provides present and future nurse leaders with an understanding of health policy as it relates to health care delivery and nursing practice. This course will analyze health policy environments and the rules, structure, and settings where policy is developed, as well as the political, economic, technological, national, and global environments within which each setting operates. The students will analyze the interaction of the primary health policy individuals or groups including the health care purchasers, health care providers, third-party payers, consumers, special interest groups, and professional organizations. Students will assess the atmosphere in which policy is created and how compromise and bargaining shape policy decisions. Throughout the course, current policy initiatives involving health care delivery and nursing will be analyzed. The role of educational, political, and organizational health care leaders in the change process and in the formation of health care policy decisions will be a theme throughout this course. (3 semester hours)

### NSG 7140—Theories of Education

This course is designed to enhance the student's knowledge and application of educational theory. The relationship between nursing theory and educational theory is explored. Methods to test educational theories will be evaluated. (3 semester hours)

### NSG 7150—Instructional Design and Curriculum Development

This course examines the process of curriculum development from faculty and administrative viewpoints. The relationship of learning theory to curriculum and instructional design will be explored. Curricula will be analyzed within the context of accreditation standards and program evaluation process. Instructional design models are assessed for applicability to a nursing course. A method to generate evidence related to instructional strategies is developed. (3 semester hours)

### HPH 7200—Ethics

Health care professionals are required to act morally and ethically. This course is designed to expand the student's basic understanding of ethics to promote ethical awareness and enable students to derive better health care decisions, reducing the risk of potential ethical consequence. By exposing students to bioethics and controversial ethical issues typically encountered in current health care practice, students practice making difficult decisions. Students will synthesize and implement strategies for applying morals, values, and ethics systematically in the various settings in which health care is delivered. Considering the perspectives of all stakeholders and the role of the health care provider, patient advocate,

professional, and consumer of medical care, students will gain workable knowledge of contemporary ethical issues and appreciate that ethics permeate the majority of decisions made in health care. (3 semester hours)

### **NSG 7210—Evidence-Based Evaluation**

This course focuses on the exploration of the state of evaluation in today's educational settings as they relate to nursing education. Critical assessment of issues related to evaluation in various educational environments is included. The integration and utilization of various evaluation methods in the curriculum is studied. Students will analyze, synthesize, and propose research on assessment and evaluation in nursing education. (3 semester hours)

### **NSG 7220—Higher Education Leadership**

This online course focuses on a variety of topics of importance to nursing leaders in higher education. Students will examine the leadership demands specific to the higher education environments as well as personal application of these concepts. The structures and functions of college and university settings of all kinds will be explored. Students will investigate multiple dimensions of academic excellence including faculty members, students, administrators, programs and curricula, teaching and evaluation methods, and resources. These key components will be discussed in the context of educational accreditation. Current issues affecting higher education will also be discussed (3 semester hours)

### **NSG 7230—Health Care Leadership**

This online course provides an opportunity to present future nursing leaders with an understanding of health care leadership. This course applies leadership and decision-making principles to the health care environment as it relates to nursing practice, research, and quality. The course focuses on current and future leadership issues and trends, best practices, and characteristics of current nursing leaders in health care. Students will examine the opportunities and roles for nurse leaders; apply strategies for change related to nursing leadership, roles, function, and image; and develop a personal/professional nursing leadership development plan. (3 semester hours)

### **NSG 7240—Tests and Measurements**

This course is designed to enhance the student's knowledge and application of sound measurement principles and practices for assessing learning outcomes and evaluating and conducting research in nursing education. Students will analyze the relationship between research, practice, and psychometric issues. The course will provide a theoretical and practical foundation for choosing tests and measurements data available to applied researchers. (3 semester hours)

### **NSG 7250—Scholarship and Applied Research**

This course is designed to develop a professional trajectory for scholarship as a member of the nursing discipline. Fundamental to this scholarship is Boyer's Model of Scholarship and a plan for research in the specialty of nursing education. Course

requirements will include assessments of self and organizational scholarship in order to develop a plan for future contributions to the discipline. (3 semester hours)

### **HPH 7300—Biostatistics I**

First of a two-course sequence focusing on inferential statistics for students interested in understanding quantitative research in the health sciences. It is designed to enable students to apply experimental-design models toward solving practical problems and improving the efficiency of formulating and providing health care services. The prerequisite is an introductory-level statistics course taken recently. After successful completion, students will be able to match empirical research questions to statistical methods; apply hypothesis-testing models to experimental and quasi-experimental research questions; use appropriate probability distributions, including  $z$ ,  $t$ , and  $F$ ; estimate parameters with adequate confidence intervals; test hypotheses using a wide variety of statistical models; and use different versions of analysis of variance as applied to the health sciences. (3 semester hours)

### **HPH 7310—Biostatistics II**

This is the second of a two-course sequence focusing on inferential statistics for students interested in conducting quantitative research in the health professions. It is designed to enable students to gather data and apply experimental-design models toward solving practical problems and improving the efficiency of formulating and providing health care services. The focus in this second course is to train students to generate, interpret, and evaluate clinical,

biomedical, and health care-services regression models. Prerequisite is successful completion of Biostatistics I (HPH 7300). After successful completion of this course, students will be able to conduct empirical research using statistical methods; apply bivariate and multivariate regression hypothesis-testing models to experimental and quasi-experimental research questions; evaluate the assumptions of regression models; estimate and assess the impact of regressors in functional relationships; estimate parameters with adequate confidence intervals; transform variables in ordinary least squares from linear to quadratic, cubic, logarithmic, and other expressions; and measure the effect of nonquantitative variables. (3 semester hours)

### **NSG 7310—Doctoral Seminar I**

This course provides the student with an opportunity to examine the dissertation process. The course focuses on structure and design of a concept for Ph.D. dissertation research that includes peer/collegial review and scholarly discourse leading to a draft of chapter one of the proposal development. (1 semester hour)

### **NSG 7320—Doctoral Seminar II**

This course provides the student with a continuation of the dissertation process. The course focuses on structure and design of Ph.D. dissertation research that includes chairperson review and scholarly discourse leading to proposal development. (1 semester hour)

### **NSG 7330—Doctoral Seminar III**

This course provides an online comprehensive exams format and a continuation of the dissertation process.

The course focuses on comprehensive exams and structure and design of Ph.D. dissertation research that includes chairperson review and scholarly discourse leading to proposal development. **(1 semester hour)**

### **HPH 7400—Quantitative Research Design**

This course will provide students with a fundamental understanding of the basic methods and approaches used in health-related research. A major emphasis of the course will be on the conceptualization and design of research studies. The course will cover ethics, formulation of research questions, study design, reliability, validity, sampling, measurement, and interpretation of research findings. It will prepare students to critically evaluate published research articles, to abstract information and interpret findings appropriately from the published literature, and to design sound research studies. The course will be both theoretical and applied. Students will be challenged to apply the theoretical concepts presented in the classroom and in the readings to design a study to address a health-related issue of their choice. **(3 semester hours)**

### **HPH 7410—Qualitative Research**

This course will focus primarily on the knowledge and skill competencies you will need to conduct nursing education qualitative research successfully. In this pursuit, students will be immersed in the epistemological, theoretical, ethical, methodological, and procedural understanding of qualitative research, apply this knowledge to the conceptualization and conduct of nursing education qualitative research, report the findings of the research

in the form of a research article, and appraise the quality of such qualitative research products. Upon completion of the course the student will have demonstrated that he or she has mastered the basic competencies needed to create, plan, and complete a nursing education qualitative research dissertation. **(3 semester hours)**

### **HPH 7500—Philosophy of Science**

This online course covers schools of thought in philosophy of science. To address the need of laying the foundation for the generation and expansion of new professional knowledge that will guide evidence-based practice for the health professions, this course also covers topics on the acceptance of theories in the scientific community and epistemology of applied scientific inquiry. This course is designed to allow Ph.D. students in the health professions to gain appreciation for the philosophical underpinnings of unity in science, to be able to apply philosophical frameworks and epistemological paradigms in their future research, and to, eventually, become creative researchers in their areas of practice. **(3 semester hours)**

### **NSG 7600—Grant Writing and Publications**

This course is designed to provide writing experiences that prepare the learner for manuscript and grant proposal submissions. This introductory experience into the grant process from proposal to funding to management will include project management, funding sources, and funding challenges. Other course requirements include a research proposal (manuscript) that is ready for submission for publication and development of a dissertation proposal. **(3 semester hours)**

For further information regarding the Ph.D. in nursing education program, call the Nursing Department at (954) 262-1983 or 800-356-0026, ext. 21983.







**College of  
Medical Sciences**



# College of Medical Sciences



Harold E. Laubach,  
B.S., M.S., Ph.D.  
Dean

## Mission Statement

The mission of the College of Medical Sciences is to train students in the basic medical sciences and to prepare them for careers in health care and higher education. In accordance with this mission, the College of Medical Sciences offers a master of biomedical sciences degree and provides basic science instructors for the colleges within the Health Professions Division.

## Administration

**Harold E. Laubach**, B.S., M.S., Ph.D.  
Dean

**Howard S. Hada**, B.A., M.S., Ph.D.  
Assistant Dean for Academic Affairs

**Lori B. Dribin**, B.A., Ph.D.  
Assistant Dean for Student Affairs

## Degree Programs

In line with its mission, the College of Medical Sciences currently offers a master of biomedical sciences degree program.

## Accreditation

While there is no specific accreditation process for basic science or medical sciences, this portion of our educational process has always been

evaluated by visiting accreditation teams of the several professions and has always received highest grades and commendation.

## Admissions Requirements

In order to be considered for admission into the master's program, the student must meet the following requirements:

- completion of a bachelor's degree from a regionally accredited college or university
  - completion of eight semester hours with a minimum 2.0 grade point average in each of the following: general biology, general chemistry, organic chemistry, and general physics, all with laboratory, as well as six semesters of English
  - a minimum cumulative GPA of 2.5 on a four-point scale.
  - submit scores from one of the following: the Medical College Admission Test (MCAT) or the Dental Admission Test (DAT)
- Scores may not be more than five years old.

It should be noted that many criteria, in addition to academic credentials, play a role in the admissions process to professional schools. While the biomedical science program does provide an opportunity for the student to demonstrate academic capability, it does not ensure admission to any professional school. Admission to the graduate program or completion of courses will not guarantee admission to any other program of Nova Southeastern University.

## Application Procedures

Candidates for admission must submit

1. a completed application form along with a \$50 nonrefundable application fee. Application deadline is April 15.

2. official transcripts of all undergraduate, graduate, and professional coursework, submitted directly to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Medical Sciences  
Office of Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905.

3. official reports of standardized test scores such as the MCAT or DAT, not more than five years old

4. one letter of recommendation from a preprofessional advisory committee, or, if this does not exist, two letters may be substituted from instructors who can testify to the student's characteristics, integrity, application, and aptitude in science. If an applicant has been in the work world for a considerable period of time, two letters of recommendation may be substituted from employers who can testify to the student's characteristics, integrity, application, and aptitude in science.

Upon receipt of the completed application and required credentials, the committee on admissions will select those applicants to be interviewed. All applicants who are eventually accepted into the program must be interviewed. An invitation to appear for an interview should not be construed by the applicant as evidence of acceptance.

The dean of the College of Medical Sciences is empowered to evaluate the total qualifications of every student and to modify requirements in unusual circumstances.

The admission process to the graduate program in biomedical sciences is not related in any way to the admissions process of any other program at Nova Southeastern University.

## Schedule of Application for Admission Cycle

Applications will be accepted starting January 1, and the deadline is April 15 of the year of matriculation.

## Tuition and Fees

1. Tuition for 2010–2011 is \$30,175 (subject to change by the board of trustees). A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually. A microscope/lab fee of \$100 is required of all students for the first year.

2. Acceptance fee is \$100. This fee is required to reserve the accepted applicant's place in the entering first-year class. This advance payment will be deducted from the tuition payment due on registration day, but is not refundable in case of withdrawal. It is payable within two weeks of the applicant's acceptance.

3. A deposit of \$400 is due two weeks after the notification of acceptance.

4. Preregistration fee is \$500, due July 15, under the same terms as the acceptance fee.

5. Student activities fee is \$100, payable at each fall registration.

The first semester's tuition and fees, less the \$1,000 previously paid, are due on or before registration day. Tuition for the subsequent semester is due on or before registration day for that semester. Students will not be admitted until their financial obligations have been met.

### **Transfer Credits**

A student who has attended another college or university in a medical sciences program, must ask the registrar of that institution and all other institutions attended to send official transcripts of credit to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Medical Sciences  
Office of Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905.

The student shall request that the dean of the previously attended college send a letter of recommendation directly to the dean of the College of Medical Sciences.

No more than 6 hours of the 36 hours required for the degree can be transferred from another institution and only graduate courses with a B or better, after approval by the student's advisory committee and the dean, will be accepted.

The dean's office will evaluate the courses and determine appropriate credits.

### **Dismissal and Suspension**

Students may be dismissed from the College of Medical Sciences if

- they earn less than an 80 percent grade in more than seven hours of classroom courses in any semester or overall
- they do not maintain an overall average, at any time, of 80 percent in the program
- they fail a course during any semester
- they exceed a six-year limit for completing all graduation requirements, exclusive of any approved leave of absence or withdrawal in good standing.
- in the opinion of the dean, circumstances of a legal, moral, behavioral, ethical, or academic nature warrant such action, or if, in the dean's opinion, there are factors that would interfere with or prevent them from meeting appropriate professional standards

A student may be suspended (removed from academic enrollment and/or revocation of all other privileges or activities and from the privilege to enter the campus for a specified period of time) if, in the opinion of the dean, the student has not attained the academic level and/or has deviated significantly from the standards of behavior established by the College of Medical Sciences.

### **Policy on Readmission**

Students who are dismissed for any reason may petition for reinstatement, if a reasonable time has elapsed since the dismissal. Readmission will be at the discretion of the dean. The applicant is required to present

adequate evidence that the factors that caused the prior poor academic performance have changed significantly so that there is reasonable expectation that the applicant can perform satisfactorily if permitted to resume his or her college study.

The college reserves the right, and the student, by his or her act of matriculation, concedes to the college the right to require withdrawal at any time the college deems it necessary to safeguard its standards of scholarship, professional behavior and compliance with regulations or for such other reasons as are deemed appropriate.

### **Graduation Requirements**

To receive a degree, every student must fulfill the following requirements:

- be of good moral character
- satisfactorily pass all required examinations
- complete a minimum of 36 semester hours of coursework
- satisfactorily complete the program requirements for the degree including all assignments, with a minimum GPA of 80 percent and with no credit hours below 80 percent
- have satisfactorily met all financial and library obligations
- attend in person the rehearsal and commencement program at which time the degree is awarded

### **Course of Study**

The master of biomedical sciences is a full-time degree program that is completed in two years. Students are admitted in August every year. The program includes four semesters of on-campus study. Students select an adviser who directs their program of study. Coursework is completed along with students in the professional programs and select coursework is offered by the College of Medical Sciences. Many of the courses offered in the College of Medical Sciences are taught to students within other HPD colleges. Students will enroll in the seminar course each semester.

### **Student Organization**

**Student Council**—The College of Medical Science Student Council is the official voice of all students in the College of Medical Sciences. The organization is open to all students and welcomes participation from the student body. Its responsibilities include expressing student opinions and dispensing funds for student activities.

## College of Medical Sciences Course Descriptions

The college offers courses for graduate credit within the other Health Professions Division colleges. Each course can be found listed under the appropriate college. Courses are identified by their College of Medical Sciences course number, with specific college-designation and number. Courses are titled in accordance with their titles in their specific college, and may bear no relationship with other courses in this list.

Note: Listed at the end of each entry are lecture clock hours, laboratory clock hours, and semester hours.

### Anatomy

Chairman and Professor: **G. R. Conover** | Professors: **L. Dribin, A. Mariassy, K. Tu, R. K. Yip** | Associate Professors: **C. Purvis, N. Lutfi** | Assistant Professor: **P. Greeman** | Instructor: **D. McNally**

#### ANA 5500—Neuroanatomy

The study of the structure and function of the spinal cord, brain stem and cerebrum. Primary emphasis is on major motor and sensory pathways, spinal and cranial nerves, and integrative mechanisms of the central nervous system. Laboratory studies include the use of CAT and MRI scans. (36-18-3)

#### ANA 5713—Histology

The study of microscopic and submicroscopic anatomy of the cells, tissues, and organs of the body combining lecture and laboratory. (36-36-3)

#### ANA 5714—Medical Histology

The study of the microanatomy of the cells, tissues, and organs of the body; correlating structure; and function. (36-36-3)

#### ANA 5723—Neuroanatomy

The study of the structure and function of the spinal cord, brain stem, and cerebrum. Primary emphasis is on major motor and sensory pathways, spinal and cranial nerves, and integrative mechanisms of the central nervous system. Laboratory studies include the use of CAT and MRI scans. (36-18-3)

#### ANA 5727 —Gross Anatomy

The study of the structure and function of the human trunk, extremities, head, and neck. Course includes laboratory dissection of cadavers. (80-72-7)

#### ANA 5744—Gross Anatomy

The study of the structure and function of the human body. Emphasis on the detailed anatomy of the head and neck region. (56-54-4.5)

#### ANA 6700—Special Topics

Topics and hours to be arranged. (1 to 6 semester hours)

### Biochemistry

Chairman and Professor: **R. E. Block** | Professors: **E. E. Groseclose, K. V. Venkatachalam** | Assistant Professor: **W. G. Campbell**

#### BCH 5715—

#### Medical Biochemistry

Introduces functions of the important carbohydrates, lipids, nucleic



acids, proteins, and properties of enzymes. Covers the pathways of normal metabolism and their controls. Genetics is introduced. DNA replication, transcription, and translation are discussed. Includes hemostasis with details of coagulation factors, nutrition and biochemical aspects of digestive, visual, musculoskeletal, and endocrine systems. (86-0-5)

### **BCH 5735—Biochemistry**

Introduces the structures and functions of the carbohydrates, lipids, nucleic acids, and proteins. Covers the pathways of normal metabolism and their controls, as well as nutrition, digestion, and absorption. Includes biochemical aspects of the dental, neural, visual, respiratory, musculoskeletal, and endocrine systems. (72-0-4)

### **BCH 6700—Special Topics**

Topics and hours to be arranged. (1 to 6 semester hours)

## **Microbiology**

Chairman and Professor: **H. Hada** | Professors: **D. Burris, H. E. Laubach** | Associate Professor: **K. Davis** | Assistant Professor: **B. Mayi**

### **MIC 1710—Dental Microbiology I**

Basic aspects of infections of the oral cavity, oral microbial ecology, and normal flora involving bacteria, fungi, and viruses are covered. (54-0-3)

### **MIC 1711—Dental Microbiology II**

Essential principles of innate and acquired immunity including the immune response at mucosal surfaces, immune dysfunctions, and transplantation immunology are presented. (36-0-2)

### **MIC 5727—Medical Microbiology**

Comprehensive study of immunology and of disease producing micro-organisms. Covers the taxonomy, epidemiology, pathogenesis, diagnosis, and treatment of human pathogens. (126-0-7)

### **MIC 6700—Special Topics**

Topics and hours to be arranged. (1 to 6 semester hours)

## **Pathology**

Chairman and Professor: **W. A. Gibson** | Professor Emeritus: **D. C. Bergman** | Associate Professors: **B. C. Jones, A. B. Trif**

### **PTH 5500—General Pathology**

The course is to provide the student with the basic pathologic processes of human disease, with a scientific foundation in etiology, pathogenesis, morphologic alterations, and effects of disease of the organ systems, and with an emphasis on bone pathology and relevant disease states that affect the orofacial region. (54-0-3)

### **PTH 6700—Special Topics**

Topics and hours to be arranged. (1 to 6 semester hours)

## Pharmacology

Chairman and Associate Professor: **M. Parker** | Professors: **C. E. Reigel, Jr., T. Panavelil** | Associate Professor: **C. Powell** | Assistant Professor: **M. Zhao**

### PCO 5504—Pharmacology I

Introduces basic receptor theory, pharmacokinetics, and basic principles of drug action. Discusses mechanisms of action, indications, contraindications, and adverse reactions of drugs affecting major organ systems. (50-0-4)

### PCO 5503—Pharmacology II

A continuation of PCO 5504—Pharmacology I, with particular emphasis on drugs used in oral medicines and dentistry as well as oral manifestations of systemic drugs. (48-0-3)

### PCO 6700—Special Topics

Topics and hours to be arranged. (1 to 6 semester hours)

## Physiology

Chairman and Professor: **W. A. Schreier** | Professors: **H. N. Mayrovitz, S. Taraskevich** | Associate Professor: **Y. Zagvazdin** | Assistant Professor: **L. Lyons**

### PHS 5500—Physiology

Physiology covering organ systems, cell function, membrane functions, membrane translocation, electrophysiology, muscle physiology, neurophysiology, and the cardiovascular, renal, respira-

tory, gastrointestinal, endocrine, and nervous systems. (64-0-4)

### PHS 5723—Medical Physiology I

The first semester of a two-semester course covering the study of general physiology (cell function, membrane translocation, electrophysiology, and muscle physiology), the autonomic nervous system, and cardiovascular physiology. (54-0-3)

### PHS 5724—Medical Physiology II

The continuation of Medical Physiology I. This semester includes the study of renal, respiratory, endocrine, reproductive, gastrointestinal and nervous systems. (72-0-4)

### PHS 6700—Special Topics

Topics and hours to be arranged. (1 to 6 semester hours)

## Core Courses

### COMS 5702—Seminar

Students and faculty members observe and present research seminars on selected topics. Topics and hours to be arranged. (1 to 4 semester hours)

### COMS 6700—Special Topics

Coursework is designed to advance knowledge in a specific area of science. Topics and hours to be arranged. (1 to 6 semester hours)



# **College of Dental Medicine**





# College of Dental Medicine



Robert Uchin, D.D.S.  
Dean

## Mission Statement

The mission of the College of Dental Medicine (CDM) is to educate students to become competent in all phases of the general practice of dental medicine, and postdoctoral residents to become proficient in their respective specialty fields. The CDM is committed to ensuring graduates' excellence in the art and science of dental medicine and their commitment to independent, lifelong learning. This mission requires graduates to be knowledgeable in the biological sciences, clinically skilled, technologically proficient, compassionate, and sensitive to the needs of the public. The graduate will be competent to function as a member of, or in conjunction with, an interdisciplinary primary care health team.

The CDM fosters leadership and excellence in dental education through a commitment to:

- recruitment and retention of the highest caliber of self-motivated students, residents, and faculty members
- innovative teaching methods, research, scholarship, professionalism, and ethical principles
- continuing education
- service to the local, national, and international communities

The CDM has a special commitment to educate students and residents to provide culturally sensitive care to the underserved and special needs populations.

## Administration

**Robert Uchin, D.D.S.**  
Dean

**Peter Keller, D.D.S.**  
Executive Associate Dean for  
Academic and Clinical Resources

**Dominick DePaola, D.D.S., Ph.D.**  
Associate Dean for Academic Affairs

**Steven M. Kelner, D.M.D., M.S.**  
Associate Dean for  
Institutional Affairs

**Abby J. Brodie, D.M.D., M.S.**  
Associate Dean for Curriculum  
and Educational Affairs

**Stephen N. Abel, D.D.S., M.S.**  
Associate Dean for Extramural Affairs

**Sergio Kuttler, D.D.S.**  
Associate Dean for Advanced  
Education Programs

**Hal Lippman, D.D.S.**  
Associate Dean for Student Affairs  
and Admissions

## Dental Medicine

If you are considering a career in dentistry, your education will focus on producing a competent, confident, and mature professional. You will be trained to function as a highly qualified primary care practitioner capable of delivering comprehensive dental care to patients of all ages.

For the highly trained and skilled dentist, career opportunities are

almost limitless. The options can be fulfilling and rewarding. The skilled dentist may choose to practice individually in urban, suburban, or rural environments; join an established, respected, and successful practice; or may choose public service in governmental agencies or the military. The skilled dentist may opt to specialize with additional advanced education in such fields as endodontics, oral pathology, oral surgery, orthodontics, pediatric dentistry, periodontology, prosthodontics, public health dentistry, or oral radiology.

For rewards so great, the training is extensive and complete. The nationally recognized faculty of Nova Southeastern University College of Dental Medicine (NSU-CDM) will prepare you to take your place as a leader among oral health care providers. A dynamic career awaits a committed individual.

### **Accreditation**

Our predoctoral programs in dentistry and postdoctoral programs in advanced education in general dentistry, endodontics, orthodontics, oral and maxillofacial surgery, periodontology, pediatric dentistry, and prosthodontics are accredited by the Commission on Dental Accreditation. The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611.

### **Facilities**

The College of Dental Medicine uses the facilities of a \$75 million physi-

cal plant of the university's Health Professions Division. A separate building consisting of 70,500 square feet of space is for the sole use of the College of Dental Medicine and houses a clinic providing modern dental care, a postgraduate student dental clinic, a virtual reality dental simulation laboratory; a faculty intramural practice; a clinical simulation laboratory; laboratory facilities to support the clinics; seminar rooms; research laboratories; and offices for the dean, faculty members, administration, and staff members.

## **Predoctoral Program**

### **Requirements for Admission**

The College of Dental Medicine selects students based on preprofessional academic performance, Dental College Admission Test (DAT) scores, personal interview, written application, and letters of evaluation.

1. Prior to matriculation, applicants must have completed a minimum of 90 semester hours of coursework at a regionally accredited college or university. Not more than 60 semester hours from community or junior college will be applied to the 90-semester hour minimum.
2. Students should have a cumulative grade point average (GPA) of 3.0 or higher on a 4.0 scale. In addition, students should have a science grade point average of 3.0 or higher on a 4.0 scale. Students must have earned a grade of 2.0 or better in each of the required courses.

## Required Courses

- Biology with lab (8 semester hours)
- Chemistry with lab (8 semester hours)
- Organic chemistry with lab (8 semester hours)
- Physics with lab (8 semester hours)
- Biochemistry (3 semester hours)
- Microbiology (3 semester hours)

## Other Courses

- English (6 semester hours)

## Suggested Additional Preparation

Courses should be selected to give students as broad and liberal an education as possible. However, applicants are encouraged to take these specific upper division courses in advanced sciences: anatomy, physiology, cell biology, molecular biology, histology, genetics, and immunology.

Courses in social sciences, principles of management, accounting, communication, foreign languages, art, and sculpture may contribute to a broad educational background.

Upon review of a student's individual record, the Committee on Admissions may require additional coursework and testing as a condition of acceptance. The dean may evaluate an applicant's qualifications and modify requirements in unusual circumstances. Inquiries should be directed to

Nova Southeastern University  
Health Professions Division  
Dental Admissions  
3200 South University Drive  
Fort Lauderdale, Florida  
33328-2018  
(954) 262-1101  
800-356-0026, ext. 21101

## Transfer of Credit Policy

Circumstances may warrant that a student enrolled in one dental school seeks to transfer to another institution. Credits may only be transferred from a dental school accredited by the Commission on Dental Accreditation. The Office of the Associate Dean for Academic Affairs will evaluate a prospective transfer student's coursework, which must be comparable to that of Nova Southeastern University College of Dental Medicine (NSU-CDM).

- Transfer students from another dental school will be required to complete, at minimum, their last two years of instruction at the college granting the dental degree (i.e., NSU-CDM).

Transfer credits will be given consideration based upon the student's academic standing, as well as documentation from the dean or dean's designee of previous dental school(s).

- Credit is only given for completed courses with a grade of 70 percent (C) or better from the applicant's previous dental school(s).

Any dental student wishing to transfer to Nova Southeastern University College of Dental Medicine must:

1. make a formal application to Nova Southeastern University College of Dental Medicine
2. meet all the predoctoral admission requirements, which include submitting official transcripts of all college work (including dental school transcripts); DAT scores; National Board scores, if taken; and two letters of evaluation (No transfer student will be accepted without an interview.)



3. be in good standing at the student's current institution, as documented by a letter from the dean of that institution
4. supply a letter of recommendation from a faculty member of the transferring dental school
5. supply a written statement outlining the reasons for the request for transfer

Decisions on transfers are made by the dean's office. The decision will be based on factors which include, but are not limited to, academic record, circumstances leading to the transfer request, available space, and compliance with admissions standards.

### Application Procedure

1. Nova Southeastern University College of Dental Medicine uses the American Association of Dental Schools Application Service (AADSAS). AADSAS takes no part in the selection of students. The application deadline for the AADSAS application is December 1, 2010, for the class entering August 2011.

Applications are available from  
 American Association of Dental  
 Schools Application Service  
 (AADSAS)  
 1625 Massachusetts Ave., NW  
 Suite 600  
 Washington, D.C. 20036-2212  
 (202) 667-1886  
 800-353-2237

Applicants may also obtain their application through [www.adea.org](http://www.adea.org). Candidates may choose to either fill out an electronic application or download a paper application.

Materials to be mailed to AADSAS include the following:

- AADSAS application
  - an official transcript from the registrar of each college or university in which the student was enrolled (mailed directly by the college to AADSAS)
  - Dental College Admission Test (DAT) scores
2. The applicant will be required to provide the following materials to the Office of Admissions:
    - the supplemental application (electronically submitted to the College of Dental Medicine)
    - a nonrefundable application fee of \$50
    - an evaluation by a preprofessional health adviser or committee from the applicant's undergraduate institution. If this evaluation cannot be provided, three individual letters of evaluation are required from undergraduate instructors, two from science instructors, and one from a liberal arts instructor. If possible, these letters should be from faculty members who know the applicant's scholastic abilities and personal character. Otherwise, they should be from people (nonrelatives) who can provide an evaluation to the Committee on Admissions.
    - a letter of evaluation from a dentist is highly recommended but not required.

Upon receipt of the completed application and the required credentials, the Committee on Admissions will

select applicants for interview. Those selected will be notified in writing of the time and place. All applicants who are admitted by the college must be interviewed, but an invitation to appear for an interview should not be construed as evidence of acceptance. Notice of acceptance or other action by the Committee on Admissions will be on a “rolling” or periodic schedule; therefore, early completion of the application is in the best interest of the student.

Although the Committee on Admissions realizes that the majority of applicants take the DAT in October, conditional acceptances may be made to exceptional candidates pending receipt of the spring DAT test results.

Final official transcripts, covering all of the applicant’s work, must be forwarded to Nova Southeastern University, Enrollment Processing Services (EPS), College of Dental Medicine, Office of Admissions, 3301 College Avenue, P.O. Box 299000, Fort Lauderdale, Florida 33329-9905.

Incomplete applications will not be considered. If your file will not be complete prior to the deadline, please attach a statement to the NSU-CDM Supplemental Application for Admission explaining what documents will be submitted after the deadline and the reason for their delay. Decisions to review late applications are at the discretion of the Committee on Admissions.

## **Tuition and Fees**

- Tuition for 2010–2011 (subject to change by the board of trustees without notice) is \$46,150 for Florida residents and \$48,950 for out-of-state students. A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually. Eligible students must request in-state tuition on application. For tuition purposes, a student’s Florida residency status (in-state or out-of-state) will be determined at initial matriculation and will remain the same throughout the entire enrollment of the student at NSU. Accordingly, tuition will not be adjusted as a result of any change in residency status after initial enrollment registration.
- Acceptance fee is \$1,000. This fee is required to reserve the accepted applicant’s place in the entering first-year class. This advance payment will be deducted from the tuition payment due on registration day, but is not refundable in the event of a withdrawal. Candidates accepted on or after December 1 have 45 days to pay their acceptance fee. Candidates accepted on or after January 1 have 30 days to pay their acceptance fee. Applicants accepted on or after February 1 are required to submit their acceptance fee within 15 days. Applicants accepted after July 15 must pay their acceptance fee immediately.
- Preregistration fee is \$1,000 and is due April 15, under the same terms as the acceptance fee.

The first semester's tuition and fees, less the \$2,000 previously paid, are due on or before registration day. Tuition for each subsequent semester is due on or before the appropriate registration day. Students will not be admitted until their financial obligations have been met. It is extremely important that applicants be committed to meeting their financial responsibilities during their four years of training. This should include tuition, living expenses, books, equipment, and miscellaneous expenses.

It is mandated that each student carry adequate personal medical and hospital insurance. Students may avail themselves of the medical and hospital insurance plans obtainable through the university.

## **International Dental Graduate Program**

The College of Dental Medicine has a limited number of openings for graduates of non-U.S. dental schools who wish to earn a U.S. dental degree in order to qualify for licensure in the United States.

### **Requirements for Admission**

The College of Dental Medicine selects students based on academic records, letters of evaluation, a computer-generated minimum score of 80 in the Test of English as a Foreign Language (TOEFL), a minimum score (85) on Part I of the National Board Dental Examination, a translated GPA of the American equivalent of a 3.0, a personal interview, a psychomotor bench test, and a clinical case

presentation. The psychomotor bench test and clinical case presentation may include the following: Canadian wax carving examination, typodont tooth preparation and restoration in amalgam, and typodont tooth preparation for a full metal crown. The clinical case presentation will consist of an oral presentation related to a clinical scenario. Procedures in the bench test are subject to change.

In order to participate in the bench test, a qualifying score on the TOEFL exam and the National Board of Dental Examination, Part I, must be received by the Office of Admissions prior to the date of the bench test examination.

All materials needed for the above will be provided by NSU-CDM. The fee for this psychomotor bench test and clinical case presentation will be \$2,500. This fee is in addition to the tuition for the IDG program, should the applicant be selected for admission.

In order to qualify, the applicant must have received, prior to matriculation in this International Dental Graduate Program, a D.M.D., D.D.S., or their equivalent, from a non-U.S. dental school.

### **Application Procedures**

**Notice of acceptance or other action by the Committee on Admissions will be on a rolling or periodic schedule; therefore, early completion of the application is in the best interest of the student.**

1. Nova Southeastern University College of Dental Medicine (NSU-CDM) affords the candidate the option of using the Centralized

Application for Advanced Placement for International Dentists (CAAPID). CAAPID does not take part in student selection. Applications are available from the American Dental Education Association (ADEA).

**American Dental Education Association (CAAPID)**

1400 K Street NW  
Suite 1100  
Washington, D.C. 20005  
(617) 612-2035  
[caapidinfo@caapid.org](mailto:caapidinfo@caapid.org)

Materials that should be mailed to CAAPID by February 15, 2011, include the following:

- CAAPID application
- one official transcript sent directly from each college, professional school, or university attended
- official National Board of Dental Examiners (NBDE) scores for Part I and Part II (if taken)
- official score from the Test of English as a Foreign Language (TOEFL)
- three letters of evaluation

2. If the applicant does not choose to use CAAPID, the applicant should mail the following materials to the Enrollment Processing Services (EPS) by February 15, 2011:

- the completed College of Dental Medicine application form for the International Dental Graduate Program
- a nonrefundable application fee of \$50
- official score from the Test of English as a Foreign Language (TOEFL)

3. The applicant must arrange for one official transcript from each col-

lege, professional school, or university attended to be sent directly to the EPS by February 15, 2011.

Coursework taken at a foreign institution must be evaluated for U.S. institution equivalency by one of the services listed below. It is the applicant's responsibility to have this coursework evaluated, course by course. An official evaluation must be sent to the EPS.

- **World Education Services, Inc.**  
P.O. Box 745  
Old Chelsea Station  
New York, New York 10113-0745  
(212) 966-6311
- **Josef Silny & Associates, Inc.**  
International Education Consultants  
7101 SW 102nd Avenue  
Miami, Florida 33173  
(305) 273-1616  
[www.jsilny.org](http://www.jsilny.org)
- **Educational Credential Evaluators, Inc.**  
P.O. Box 514070  
Milwaukee, Wisconsin 53203-3470  
(414) 289-3400  
[www.ece.org](http://www.ece.org)

4. The applicant must provide an official letter of graduation from the dean or designee of that institution supporting the granting of the dental degree from that institution.

5. Please request that the secretary of the National Board of Dental Examiners forward your scores for Part I and Part II (if taken) of the examination to the Office of Admissions. The National Board of Dental Examiners is located at 211 East Chicago Avenue, Chicago, Illinois 60611.

6. Three letters of evaluation are required. They may be completed by dental school faculty members who

are well acquainted with the applicant's abilities or by individuals who can provide information relevant to the applicant's potential. All materials should be sent to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Dental Medicine  
Office of Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905

### **Tuition and Fees**

- Tuition for 2010–2011 (subject to change by the board of trustees without notice) is \$52,610.
- A microscope fee of \$125 per year is required of all students.
- A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.
- Upon entering the program, students will purchase all necessary instruments, equipment, and an NSU-specific laptop computer required of all first- and second-year predoctoral students.
- Acceptance/Preregistration fee is \$2,000. This fee is required to reserve the accepted applicant's place in the entering, first-year, international, dental graduate class. This advance payment will be deducted from the tuition payment due upon registration, but it is not refundable in the event of withdrawal.

The first semester's tuition and fees, less the \$2,000 previously paid, are due on or before registration day. Tuition for each subsequent semester

is due on or before the appropriate registration day. Students will not be admitted until their financial obligations have been met.

It is extremely important that applicants be committed to meeting their financial responsibilities during their three years of training. This should include tuition, living expenses, books, equipment, and miscellaneous expenses.

It is mandated that each student carry adequate personal medical and hospital insurance. Students may avail themselves of the hospitalization insurance plan obtainable through the university.

### **Expenses and Financial Aid for All Predoctoral Programs**

Students should anticipate the following approximate expenses for the electronic textbook program:

- first year—\$1,400
- second year—\$1,200
- third year—\$1,250
- fourth year—\$1,250

Students should anticipate the following approximate expenses for instruments, equipment, and NSU-specific laptop computer

- first year—\$14,000
- second year—\$10,500
- third year—\$4,000
- fourth year—\$4,500

The purpose of the Student Financial Assistance Program at Nova Southeastern University is to help as many qualified students as possible to complete their health professions education. Various loans, scholarships, and grants are available to qualified students to help ease the high cost of a health professions

education. These financial assistance programs are described in a separate university publication: *A Guide to Student Financial Assistance*.

Opportunities for a limited number of part-time work assignments are available. However, the demands of a program of professional study limit the number of hours a student can work.

### **Policies Related to Academic and Student Affairs**

The policies regarding suspension, dismissal, readmission and other academic and student policy issues are described in the *College of Dental Medicine Predoctoral Student Handbook*, which is revised, updated, and distributed annually to all predoctoral dental medicine students.

### **Graduation Requirements**

To receive a D.M.D. degree from the College of Dental Medicine, every student must fulfill the following requirements:

- be of good moral character
- have demonstrated the ethical, personal, and professional qualities deemed necessary for the successful and continued study and practice of dental medicine
- have satisfactorily passed all required didactic and clinical courses and clinical rotations in the CDM curriculum
- have satisfactorily completed all clinical requirements, experiences, and competency examinations
- have completed all coursework in the College of Dental Medicine within four years from the date of matriculation (exclusive of any

approved leave of absence in good standing)

- have satisfactorily completed all assigned curriculum requirements for the D.M.D. degree with a numerical average of 70 percent or higher
- have passed the National Board Dental Examination (NBDE) Part I.
- have satisfactorily met all financial and library obligations
- have attended, in person, the graduation rehearsal and the commencement program at which the D.M.D. degree is awarded
- have complied with any other university or Health Professions Division graduation requirements

Degrees are not awarded solely upon the completion of any prescribed number of courses or upon passing a prescribed number of examinations but, in addition, when the faculty believes that the student has attained sufficient maturity of thought and proficiency. Matriculation and enrollment do not guarantee the issuance of a degree without satisfactorily meeting the aforementioned curriculum and degree requirements.

### **Course of Study**

The College of Dental Medicine embodies a comprehensive didactic and group practice clinic model curriculum designed to graduate competent and compassionate clinicians devoted to comprehensive primary care of each patient.

The college is closely allied with Nova Southeastern University's College of Osteopathic Medicine and the other health professions colleges of the NSU Health Professions

Division, in proximity as well as in academic collaboration.

Early introduction into clinical settings under the preceptorship of faculty members will enable the student to achieve a better understanding of the dynamics of the patient/dentist relationship. It also

will reinforce classroom instruction in basic and behavioral sciences to allow for management and delivery of quality dental health care as a component of total body health.

Students will be taught the importance of teamwork in an efficient, modern health care delivery system.

## 2010–2011 Curriculum Outline

Calculations based on an 18-week semester (subject to change)

SUMMER 2010—D2, Class of 2013		Contact	Laboratory	Credit Hours
CDM 2000	National Board Dental Examination Part I Review	6	0	1
CDM 2050	Endodontics Laboratory (continued in Fall 2010—D2)			
CDM 2060	Endodontics Lecture (continued in Fall 2010—D2)			
CDM 2201	Operative Dentistry Lecture (continued from Winter 2010—D1)	18	0	1
CDM 2211	Operative Dentistry Laboratory (continued from Winter 2010—D1)	0	48	1
CDM 1016	Clinical Experience Rotation II (continued from Winter 2010—D1)	1	15	1
CDM 2005	Craniofacial Growth and Development	10	0	1
CDM 2501	Periodontology Clinic (continued in Fall 2010—D2)			
CDM 2125	Pathology II	19	0	1
CDM 2025	IDG Operative Dentistry Lecture and Lab			
CDM 2185	IDG Clinical Periodontology Orientation	2	8	0.5

SUMMER 2010—D3, Class of 2012		Contact	Laboratory	Credit Hours
CDM 3500	Clinical Restorative Dentistry I (continued in Fall 2010—D3)			
CDM 3410	Clinical Fixed Prosth. I (continued in Fall 2010—D3)			
CDM 3411	Clinical Removable Prosth. I (continued in Fall 2010—D3)			
CDM 3501	Clinical Periodontology V (continued in Fall 2010—D3)			

CDM 3503	Clinical Periodontology Rotations (continued in Fall 2010—D3)			
CDM 3621	Clinical Endodontics (continued in Fall 2010—D3)			
CDM 3507	Clinical OMFS Rotation I (continued in Fall 2010—D3)			
CDM 3525	Clinical Pediatric Dentistry Rotation (continued in Fall 2010—D3)			
CDM 3650	Radiology Clinic I (continued in Fall 2010—D3)			
CDM 3200	Laboratory and Clinical Applications of Occlusion	8	10	0.5

**SUMMER 2010—D4, Class of 2011**      Contact    Laboratory    Credit Hours

CDM 4501	Clinical Periodontology VII (continued in Fall 2010—D4)			
CDM 4500	Clinical Restorative Dentistry IV (continued in Fall 2010—D4)			
CDM 4410	Clinical Fixed Prosth. IV (continued in Fall 2010—D4)			
CDM 4411	Clinical Removable Prosth. IV (continued in Fall 2010—D4)			
CDM 4621	Clinical Endodontics (continued in Fall 2010—D4)			
CDM 4507	Clinical OMFS Rotation IV (continued in Fall 2010—D4)			
CDM 4525	Clinical Pediatric Dentistry Rotation (continued in Fall 2010—D4)			
CDM 4650	Radiology Clinic II (continued in Fall 2010—D4)			
CDM 4222	Laser Dentistry (Elective)	10	4	1
CDM 4700	Extramural Primary Care Rotations (continued in Fall 2010—D4)			

**FALL 2010—D1, Class of 2014**      Contact    Laboratory    Credit Hours

CDM 1000	Anatomy Lecture/Laboratory	48	34	4
CDM 1025	Dental Biochemistry and Nutrition	93	0	5
CDM 1030	Histology	36	36	3
CDM 1050	Ethics and Professionalism	16	0	1
CDM 1070	Periodontology I (continued in Winter 2011—D1)			
CDM 1080	Dental Anatomy Laboratory	0	108	2



CDM 1090	Dental Anatomy Lecture	36	0	2
CDM 1100	Dental Biomaterials I Lecture	18	0	1
CDM 1015	Clinical Experience Rotation I	2	8	0.5
CDM 1110	Microbiology	45	0	3
CDM 1250	Virtual Reality Dental Simulation Laboratory	0	6	0.5

### WINTER 2011—D1, Class of 2014

	Contact	Laboratory	Credit Hours	
CDM 1010	Cariology	14	0	1
CDM 1230	Dental Biomaterials Laboratory	0	12	1
CDM 1111	Immunology	30	0	2
CDM 1120	Physiology	72	0	4
CDM 1130	Neuroanatomy Lecture/Laboratory	36	18	3
CDM 1135	Multidisciplinary Introduction to Record Keeping	5	27	1
CDM 1160	Oral Histology	36	0	2
CDM 1070	Periodontology (continued from Fall 2010—D1)	18	0	1
CDM 1185	Introduction to Clinical Periodontology	0	8	0.5
CDM 1200	Operative Dentistry Lecture	21	0	1.5
CDM 1210	Operative Dentistry Laboratory	0	67	1.5
CDM 1220	Occlusion I Lecture	24	0	1.5
CDM 1221	Occlusion I Laboratory	0	39	1.5
CDM 1016	Clinical Experience Rotation II			
CDM 1125	Pathology I	31	0	2

### FALL 2010—D2, Class of 2013

	Contact	Laboratory	Credit Hours	
CDM 2010	Pharmacology I	72	0	4
CDM 2030	Periodontology II	18	0	1
CDM 2040	Pharmacology, Analgesia, and Local Anesthesia I	18	0	1
CDM 2050	Endodontics Lecture (continued from Summer 2010—D2)	24	0	1.5
CDM 2060	Endodontics Laboratory (continued from Summer 2010—D2)	0	93	2
CDM 2070	Fixed Prosthodontics I Lecture	36	0	2
CDM 2080	Fixed Prosthodontics I Laboratory	0	108	2

CDM 2081	Introduction to Pediatric Dentistry	18	0	1
CDM 2085	Introduction to Special Needs Dentistry	18	0	1
CDM 2090	Removable Partial Prosthodontics Lecture	36	0	2
CDM 2100	Removable Partial Prosthodontics Laboratory	0	108	2
CDM 2101	Dental Biomaterials II Lecture	18	0	1
CDM 2110	Radiology I	18	27	2
CDM 2175	QA/Recare Clinical Rotation (continued in Winter 2011—D2)			
CDM 2280	Internal Medicine for Dentists	18	0	1
CDM 2501	Periodontology Clinic (continued from Summer 2010—D2) (continued in Winter 2011—D2)	1	12	1
CDM 2505	Radiology Preclinical Laboratory I (continued in Winter 2011—D2)			

<b>WINTER 2011—D2, Class of 2013</b>		Contact	Laboratory	Credit Hours
CDM 2102	Dental Biomaterials II Laboratory	0	18	1
CDM 2120	Oral and Maxillofacial Diagnosis I	18	0	1
CDM 2130	Pharmacology II	54	0	3
CDM 2140	Introduction to Oral Medicine	18	0	1
CDM 2150	Oral and Maxillofacial Surgery I	18	27	2
CDM 2160	Periodontology III	18	0	1
CDM 2170	Pharmacology, Analgesia, and Local Anesthesia II	18	0	1
CDM 2175	QA/Recare Clinical Rotation (continued from Fall 2010—D2) (continued in Summer 2011—D2)			
CDM 2180	Pediatric Dentistry Lecture	36	0	2
CDM 2190	Pediatric Dentistry Laboratory	0	54	1
CDM 2200	Orthodontics Lecture/Laboratory	36	36	3
CDM 2220	Complete Denture Prosthodontics Lecture	36	0	2
CDM 2230	Complete Denture Prosthodontics Laboratory	0	36	1
CDM 2241	Introduction to Comprehensive Treatment Planning	18	0	1
CDM 2242	Axium EHR Treatment Planning Module	10.5	10.5	0.5

CDM 2250	Endodontics Clinical Lecture	18	0	1
CDM 2260	Fixed Prosthodontics II Lecture	18	0	1
CDM 2270	Fixed Prosthodontics II Laboratory	0	72	2
CDM 2501	Periodontology Clinic (continued from Fall 2010—D2)	0	0	1.5
CDM 2505	Radiology Preclinical Laboratory I (continued from Fall 2010—D2)	0	9	1

### FALL 2010—D3, Class of 2012

		Contact	Laboratory	Credit Hours
CDM 3010	Oral and Maxillofacial Diagnosis II	18	0	1
CDM 3020	Oral Medicine	18	0	1
CDM 3030	Periodontology IV	18	0	1
CDM 3040	Oral and Maxillofacial Surgery II Lecture	18	0	1
CDM 3120	Implant Restorative Dentistry Lecture	18	0	1
CDM 3130	Cosmetic Dentistry Lecture/Laboratory	18	30	3
CDM 3175	QA/Recare Clinical Rotation (continued in Winter 2011—D3)			
CDM 3410	Clinical Fixed Prosth. II (continued from Summer 2010—D3)	0	0	7
CDM 3411	Clinical Removable Prosth. II (continued from Summer 2010—D3) (continued in Winter 2011—D3)			
CDM 3500	Clinical Restorative Dentistry II (continued from Summer 2010—D3) (continued in Winter 2011—D3)			
CDM 3501	Clinical Periodontology V (continued from Summer 2010—D3) (continued in Winter 2011—D3)			
CDM 3503	Clinical Periodontology Rotation (continued from Summer 2010—D3) (continued in Winter 2011—D3)			
CDM 3507	Clinical OMFS Rotation II (continued from Summer 2010—D3) (continued in Winter 2011—D3)			
CDM 3525	Clinical Pediatric Dentistry Rotation I (continued from Summer 2010—D3) (continued in Winter 2011—D3)			
CDM 3621	Clinical Endodontics I			
CDM 3605	Orthodontic Clinical Comanagement Program (continued in Winter 2011—D3)			
CDM 3650	Radiology Clinic I (continued from Summer 2010—D3) (continued in Winter 2011—D3)			

<b>WINTER 2011—D3, Class of 2012</b>		Contact	Laboratory	Credit Hours
CDM 3011	Oral and Maxillofacial Diagnosis III	18	0	1
CDM 3021	Common Oral Conditions	18	0	1
CDM 3080	Behavioral Science	36	8	2
CDM 3090	Introduction to the Dental Profession	18	0	1
CDM 3175	QA/Recare Clinical Rotation (continued from Fall 2010—D3) (continued in Summer 2011—D3)			
CDM 3140	Special Needs Dentistry	18	0	1
CDM 3241	Comprehensive Treatment Planning	18	0	1
CDM 3221	Advanced Clinical Occlusion	18	0	1
CDM 3501	Clinical Periodontology VI (continued from Fall 2010—D3)	0	0	2
CDM 3503	Clinical Periodontology Rotation (continued from Fall 2010—D3)	0	20	1
CDM 3530	Evidence-Based Dentistry in Clinical Practice	18	0	1
CDM 3500	Clinical Restorative Dentistry III (continued from Fall 2010—D3)	0	0	10
CDM 3411	Clinical Removable Prosth. III (continued from Fall 2010—D3)	0	0	11
CDM 3420	Clinical Fixed Prosth. III	0	0	4
CDM 3060	TMD	18	0	1
CDM 3507	Clinical OMFS III (continued from Fall 2010—D3)	0	50	1
CDM 3525	Clinical Pediatric Dentistry Rotation (continued from Fall 2010—D3)	0	12	1
CDM 3621	Clinical Endodontics I	0	12	1
CDM 3650	Radiology Clinic I (continued from Fall 2010—D3)	0	42	2
CDM 3605	Orthodontic Clinical Comanagement Program II (continued from Fall 2010—D3)	0	30	1

<b>FALL 2010—D4, Class of 2011</b>		Contact	Laboratory	Credit Hours
CDM 4060	Practice Management	18	0	1
CDM 4120	Regional Board Prep Course (continued in Winter 2011—D4)			
CDM 4170	Oral Manifestations of Disease	18	0	1
CDM 4175	QA/Recare Clinical Rotation (continued in Winter 2011—D4)			

CDM 4240	Advanced Comprehensive Treatment Planning	18	0	1
CDM 4404H	Oral Medicine Honors (continued in Winter 2011—D4)			
CDM 4410	Clinical Fixed Prosth. V (continued in Winter 2011—D4)			
CDM 4411	Clinical Removable Prosth. V (continued in Winter 2011—D4)			
CDM 4500	Clinical Restorative Dentistry V (continued in Winter 2011—D4)			
CDM 4501	Clinical Periodontology VII (continued in Winter 2011—D4)			
CDM 4505	Clinical Emergency Rotation II (continued in Winter 2011—D4)			
CDM 4507	Clinical OMFS Rotation V	0	0	1
CDM 4525	Clinical Pediatric Dentistry Rotation (continued in Winter 2011—D4)			
CDM 4611	Community Dentistry Rotation I (continued in Winter 2011—D4)			
CDM 4621	Clinical Endodontics II	20	0	1
CDM 4650	Radiology Clinic II (continued from Summer 2010—D4) (continued in Winter 2011—D4)			
CDM 4700	Extramural Primary Care Rotations (continued from Summer 2010—D4) (continued in Winter 2011—D4)			
CDM 4999	Advanced Techniques in Pain and Anxiety Control	18	0	1
CDM 403E	Advanced Elective in Endodontics (continued in Winter 2011—D4)			
CDM 400H	Honors Endodontics (continued in Winter 2011—D4)			
CDM 410H	Honors Pediatric Dentistry (continued in Winter 2011—D4)			
CDM 412H	Honors Prosthodontics (continued in Winter 2011—D4)			
CDM 414H	Honors Program in Orthodontics and Facial Orthopedics (continued in Winter 2011—D4)			

<b>WINTER 2011—D4, Class of 2011</b>		Contact	Laboratory	Credit Hours
CDM 4120	Regional Board Prep Course (continued from Fall 2010—D4)	0	72	1
CDM 4501	Clinical Periodontology VIII	0	0	2
CDM 4600	Clinical Restorative Dentistry VI	0	0	11

CDM 4621	Clinical Endodontics II	0	28	1
CDM 4410	Clinical Fixed Prosth. VI	0	0	11
CDM 4411	Clinical Removable Prosth. VI	0	0	11
CDM 4020	Clinical Oral Medicine Case Presentations	18	0	1
CDM 4175	QA/Recare Clinical Rotation (continued from Fall 2010—D4)	3	14	1
CDM 4505	Clinical Emergency Rotation III (continued from Fall 2010—D4)	0	45	1
CDM 4507	Clinical OMFS Rotation VI	0	0	1
CDM 4525	Clinical Pediatric Dentistry Rotation (continued from Fall 2010—D4)	0	0	2
CDM 4611	Community Dentistry Rotation II (continued from Fall 2010—D4)	0	0	1
CDM 4650	Radiology Clinic II (continued from Fall 2010—D4)	0	42	1
CDM 4700	Extramural Primary Care Rotations (continued from Fall 2010—D4)	0	0	7
CDM 400H	Honors Endodontics (continued from Fall 2010—D4)	10	0	1
CDM 414H	Honors Program in Orthodontics and Facial Orthopedics (continued from Fall 2010—D4)	36	0	2
CDM 4404H	Oral Medicine Honors (continued from Fall 2010—D4)	48	0	1
CDM 412H	Honors Prosthodontics (continued from Fall 2010—D4)	54	0	1
CDM 403E	Advanced Elective in Endodontics (continued from Fall 2010—D4)	14	0	0.5
CDM 425E	Forensic Odontology Elective	12	24	1.5
CDM 426E	Cone Beam CT Elective	5	0	1
CDM 427E	CAD/CAM Elective	0	0	2

### SUMMER 2011—D3, Class of 2013

	Contact	Laboratory	Credit Hours	
CDM 3175	QA/Recare Clinical Rotation (continued in Fall 2011—D3)	3	6	0.5
CDM 2999	Clinic Prerequisite Review	20	70	2

### SUMMER 2011—D1, Class of 2014

	Contact	Laboratory	Credit Hours	
CDM 2175	QA/Recare Clinical Rotation (continued from Winter 2011—D2)	3	6	0.5

## College of Dental Medicine Course Descriptions

### INTERDISCIPLINARY BIOMEDICAL SCIENCES

**Anatomy**—Chair and Professor: **G. R. Conover** | Professors: **L. Dribin, A. Mariassy, R. K. Yip** | Associate Professors: **C. Purvis, K. Tu** | Assistant Professor: **P. Greenman, N. Lutfi** | Instructor: **D. McNally**

#### CDM 1000—Anatomy Lecture/Laboratory

Human anatomy with an emphasis on the thorax, neck, and head. Lecture sessions, laboratory dissection and prosection, organogenesis of regions dissected. Radiological anatomy.

#### CDM 1030—Histology

Principles of cell biology, normal microscopic and submicroscopic anatomy of cells, and tissues. Correlated with gross anatomy and physiologic function. Microscopic anatomy of normal tissues and organs.

#### CDM 1130—Neuroanatomy

##### Lecture/Laboratory

Study of the gross structure of the brain and spinal cord and the functional relationship among their parts. Emphasizes major motor and sensory pathways and integrative mechanisms of the central nervous system.

**Behavioral Science**—Associate Professor: **A. Fins**

#### CDM 3080—Behavioral Science

This course provides dental students with interviewing strategies, communication skills and an introduction to the theories and research pertaining to anxiety with specific interventions geared to reduce tension and fear.

Students will be exposed to various interviewing and communication techniques as well as theories regarding the etiology of anxiety. Students will gain familiarity with psychological and physiological indices of arousal. It is the goal of this course to acquaint dental students with well established interventions including progressive muscle relaxation, systematic desensitization, biofeedback, hypnosis, and the relationship of anxiety/stress to pain syndromes.

**Biochemistry**—Chair and Professor: **R. E. Block** | Professors: **E. E. Groseclose, K. V. Venkatachalam** | Assistant Professor: **W. G. Campbell**

#### CDM 1025—Dental

##### Biochemistry and Nutrition

This course includes concepts and principles of biochemistry of normal and pathologic human life processes. In addition, the principles of nutrition, biochemical roles of dietary constituents, digestion, and absorption are discussed.

**Microbiology**—Chair and Professor: **H. Hada** | Professor: **D. Burris** | Associate Professor: **K. Davis** | Assistant Professor: **B. Mayi**

#### CDM 1110—Microbiology

Presents basic medical aspects of bacteriology, virology, and mycology, and includes taxonomy, morphology, epidemiology, growth cycles, pathogenesis, and treatment. Emphasizes oral microbial ecosystems and biofilms.

### CDM 1111—Immunology

This course presents basic knowledge of the cellular, molecular, and biochemical aspects of the immune system and immune responses, including how the various components integrate and work together to control infectious organisms. It includes how disturbances in the immune system can lead to disease, and how the system can be controlled therapeutically.

**Pathology**—Chair and Professor: **W. A. Gibson** | Associate Professor: **B. Jones** | Assistant Professor: **A.B. Trif**

### CDM 1125 and 2125— Pathology I and II

Covers the basic pathologic processes of human disease, with a scientific foundation in etiology, pathogenesis, morphologic alterations, and effects of diseases of the organ systems. Emphasizes bone pathology and relevant disease states that affect the orofacial region.

**Pharmacology**—Chair and Assistant Professor: **M. Parker** | Professor: **C. E. Reigel** | Associate Professors: **T. Panavelil, C. Powell, M. Zhao**

### CDM 2010—Pharmacology I

Introduces pharmacological concepts and principles, clinical indications, contraindications, risks, complications, and toxicity of drugs and pharmacological agents.

### CDM 2130—Pharmacology II

Particular emphasis on the drugs and drug interactions important to the dentist as well as the principles and concepts of pharmacology and pharmacological actions and drug interactions.

**Physiology**— Chair and Associate Professor: **W. Schreier** | Professors: **H. Mayrovitz, P. S. Taraskevich** | Associate Professor **Y. Zagvazdin**

### CDM 1120—Physiology

Physical and chemical factors and processes responsible for the development, progression, and procreation of life; organ systems approach; cell function; membrane function; membrane translocation; electrophysiology; muscle physiology; neurophysiology; and cardiovascular, renal, respiratory, gastrointestinal, endocrine, and nervous systems.

## DIVISION OF PRIMARY CARE

### Cariology and Restorative Dentistry

Chair and Associate Professor: **A. Levitt Galka** | Associate Professors: **A. Brodie, N. Feigenbaum, P. Filker, B. Taskonak** | Assistant Professors: **C. Barnes, C. Bleich, A. Farhangpour, P. Fleisher, R. Gaines, C. Galperin, T. Gonzalez, H. Gordon, S. Haas, H. Haering, R. Jacobson, E. Kilinc, J. Kodish-Stav, L. Levin, P. Papatzimas, P. Pugliese, H. Quinton, R. Ramer, J. Schiuma, M. Schweizer, L. Shapiro, R. Vogel, L. Oliveira Wright, N. Zarr** | Adjunct Faculty: **J. Araya, S. Berger, L. Gordon Brown, M. Butler, J. Cegielski, E. Chiang, S. Colombo, A. Perez Diaz, E. Fellows, D. Fleischman, M. Georgescu, P. Goswami, M. Gutierrez, J. Heider, H. Lehrer, H. Levine, N. Levy, A. Cardenas Mansur, J. Nullman, A. Olesh, S. Perlow, T. Quintana-White, R. Rohan, M. Scharmatt, I. Vasquez, G. Wallach**



### **CDM 1010—Cariology**

This course is designed to introduce the student to the medical model of caries diagnosis and disease prevention. Course content includes the etiology of the caries process and the various modalities of the disease management. The roles of saliva, bacteria, and plaque in relationship to tooth demineralization will be emphasized. Lectures include utilization of state-of-the-art diagnostic tools, including Diagnodent™, transilluminators, magnification, and ozone applicators. Caries management by risk assessment (CaMBRA) and the formulation of preventive treatment plans, including chemotherapeutic agents, will be highlighted.

### **CDM 1015—Clinical Experience Rotation I**

This clinical rotation in the D1 fall semester provides the student with early exposure and experience in the professional clinical dental environment, including observation of diagnostic methods, dental procedures, and patient-student-faculty interaction. D1 students are instructed in basic dental assisting skills and infection control principles, and may have the opportunity to implement these skills while assisting D3 and D4 students in the CDM predoctoral clinics.

### **CDM 1016—Clinical Experience Rotation II**

This clinical rotation in the D1 winter and D2 summer semesters gives the student continued and expanded exposure to the clinical dental environment in the CDM clinics. During this rotation, the D1 student's knowledge of biomedical science, dental proce-

dures, instrumentation, and record keeping is further integrated with the clinical setting.

### **CDM 1080—Dental Anatomy Laboratory**

In this course, characteristics differentiating each tooth will be taught through the use of wax carving and add-on techniques. Application of anatomic and internal root anatomy drawings and the sorting and identification of teeth will also be useful tools in mastering tooth morphology. Emphasis will be placed on teaching students how to develop their visual and psychomotor skills.

### **CDM 1090—Dental Anatomy Lecture**

This course will provide the student with the understanding of basic dental terminology and tooth morphology. External and internal root anatomy, the anatomical and functional differences of teeth, and the application of this knowledge to various phases of dentistry will also be covered. In addition, the students will have an introduction to eruption sequences of teeth, comparative anatomy of permanent and primary dentitions, and dental anomalies.

### **CDM 1135—Multidisciplinary Introduction to Record Keeping**

This course will give first-year dental students hands-on experience with completing dental treatment records by making entries in a "chart" made for the student's typodont. The students will participate in clinical exercises to generate their own dental records as well.

### **CDM 1200/2201 and CDM 1210/2211—**

#### **Operative Dentistry Lecture/Laboratory**

These courses introduce the student to the management of dental caries based on a medical model and coordinate these teachings with CDM 1010—Cariology, which runs simultaneously. The lecture course presents the topic of diagnosis and treatment of various lesions and other hard tissue defects, principles of direct restorative dentistry, and fundamental concepts in the practice of restorative dentistry. This course, in conjunction with the laboratory course, provides the foundation for the student to utilize the same knowledge and techniques that will be used in clinical application.

#### **CDM 1250—Virtual Reality Dental Simulation Laboratory**

This preclinical dental simulation laboratory rotation provides the new dental student with an introduction to the use of dental instrumentation, terminology, tooth preparation, and dental ergonomics. The computerized technology provides immediate objective feedback and enhances the student's self-evaluation skills. This virtual reality-type environment stresses small-group learning and basic principles and procedures in tooth preparation.

#### **CDM 2000—National Board Dental Examination Part I Review**

This course is designed to expose the dental students to the format of NBDE Part I. The relevant resources, available for study, will be reviewed. Students will be expected to write their own test questions across all the

different subjects covered by the examination. During class, this material will be reviewed and discussed, showing the relevancy of the subject matter to dentistry.

#### **CDM 2175—**

#### **QA/Recare Clinical Rotation**

The D2 student will work together with the Quality Assurance Dental Faculty to perform the treatment completion exams and the annual examination and assessment of recare patients in the Davie Predoctoral Clinic. The student will be required to review the patient chart prior to the appointment and perform a systematic chart review. The student will have the opportunity to observe, record, and evaluate restorations and pathology with faculty member assistance. This clinical experience will allow the student to practice the skills that he or she has learned in the D1 Multidisciplinary Record Keeping course and to continue to observe dentist-patient communication and time management prior to participating in comprehensive patient care clinic.

#### **CDM 2241—Introduction to Comprehensive Treatment Planning**

This course is designed to introduce sophomore students to the didactic basis of dental treatment planning while combining and integrating the course didactics with computer training using the electronic health record software system. The course will begin with the patient's screening admission process and will continue with the patient's data collection, including medical and dental histories, the extraoral and intraoral physi-

cal examination, and the evaluation of dental radiographs. Ultimately, students will gain a framework of reference from which to build a structured and systematic patient dental treatment plan that will ensure optimal patient care.

#### **CDM 2242—AxiUm EHR Treatment Planning Module**

This course is designed to train the sophomore students to understand and develop dental treatment plans using the electronic health record software system axiUm that is currently used at NSU CDM. The students will use the knowledge from various dental disciplines to develop treatment plans for patient presentation while learning how to navigate the axiUm program.

#### **CDM 3175 and CDM 4175—QA/Recare Clinical Rotation**

D3 and D4 students will perform periodic patient exams, including annual periodontal charting, medical/dental history review and update, caries risk assessment, and necessary radiographs for dental hygiene recare patients at the Davie clinic, and at off-site Comprehensive Care clinics. Students will review charts prior to clinic sessions in order to familiarize themselves with patients' previous care. Preventive treatment protocols will be reviewed and assessed for patient compliance, and restorative treatment outcomes will be observed and reviewed with faculty members. This will provide students with opportunities to duplicate the periodic dental hygiene treatment/dental exam experience of that in private practice.

#### **CDM 3241—Comprehensive Treatment Planning**

This course is designed to continue with the didactics of comprehensive dental treatment planning while integrating computer training using the electronic health record software system. The course will begin reviewing the patient's screening admission and data collection process and will continue with all the phases and sequencing of dental treatment planning. Practice management and ethical issues in treatment planning will also be discussed during the course. Students will have the opportunity to interact with faculty members and other classmates during patient case-based group discussions and seminars.

#### **CDM 3500—Clinical Restorative Dentistry I**

The student will incorporate the knowledge gained from prior studies while treating patients in the dental clinics. The student will develop the essential skills necessary for comprehensive patient care including diagnosis and oral medicine, periodontology, endodontics, orthodontics, restorative dentistry, oral surgery, pediatric dentistry, radiology, and emergency dental care all under the direct supervision of faculty members.

#### **CDM 4120—Regional Board Preparation Course**

This course consists of a lecture and laboratory series that presents an overview of useful clinical techniques for students who will be taking various regional board dental examinations. The course presents didactic material as well as hands-on clinical simulation

of examination parameters for procedures included in various regional board exams. Successful completion of this course should assist students taking regional board exams, but does not guarantee a passing grade on any regional board examination taken by a student.

#### **CDM 4222—**

##### **Laser Dentistry (Elective)**

The curriculum for the basic level of education in laser usage includes device instruction with demonstrated exposure—didactic and hands-on knowledge. Hands-on exercises will include demonstration and clinical simulation. Participants must demonstrate competency by written and clinical simulation and examination in the safety aspects of laser use prior to using lasers.

#### **CDM 4240—Advanced**

##### **Comprehensive Treatment Planning**

This course is designed to build upon the foundations of comprehensive dental treatment planning for application to more advanced treatment planning cases. Students will have the opportunity to interact with faculty members and other classmates during patient case-based group discussions and seminars.

#### **CDM 4500—Clinical Restorative Dentistry II**

#### **CDM 4700—Extramural Primary Care Rotation**

This course is intended to provide senior dental students with the opportunity to receive instruction in providing patient-centered primary oral health care for underserved

populations, including medically compromised patients and those with limited access to oral health services. This presents an opportunity for the students at NSU-CDM to broaden their exposure to providing comprehensive dentistry in an extramural clinic environment. Students will also better understand the public health context for the care they will be providing. Students will complete a reflective observation activity at the end of their rotation. It may consist of reflective journaling, focus groups (face-to-face or electronic), a presentation, or case writing. This activity is intended to serve as a bridge between experiential and didactic learning, and to demonstrate critical thinking skills to prepare for and learn from service experiences.

#### **Diagnostic Sciences**

Chair and Professor: **M. A. Siegel** | Section Vice Chair and Professor: **P. Bradley** | Professors: **G. Conover, H. Remnick, I. Velez** | Assistant Professors: **M. Hogge, P. Levine, L. Mejia** | Adjunct Professors: **J. Bloch, E. Choi, A. Duque, M. Gilbert, M. Lieberman, H. Lumerman, S. Puerto, D. Stern, M. Todd**

#### **CDM 1160—Oral Histology**

Oral histology is the basis of clinical dentistry. Students will be able to understand the logic and underlying basis for the restorative and surgical procedures they are about to be taught. After graduation they will be able to evaluate new clinical procedures by seeing if they, too, have a sound histologic base. The student will know

the microanatomy of the structures that make up the oral cavity as well as the clinical procedures that depend on them for their success. Uses blackboard, Kodachrome slides, and many models. Frequent reviews that require student participation will reinforce the didactic material. The Kodachrome slides that have been presented in the lectures have been duplicated and are held in the school library.

### **CDM 2110—Radiology I**

Lecture course with a preclinical laboratory exercise, in order to prepare the student for the performance of clinical oral and maxillofacial radiology technique. Infection control and safety for operator and patient is stressed.

### **CDM 2120—Oral and Maxillofacial Diagnosis I**

Lecture and demonstration course covers extraoral techniques with special emphasis on digital imaging. Lectures cover radiographic interpretation of developmental anomalies, caries, periodontal disease, periapical disturbances, and other anomalies.

### **CDM 2140—Introduction to Oral Medicine**

Didactic course builds on and incorporates the knowledge base gained in the basic medical sciences. Focuses on a comprehensive medical history and physical examination of the head and neck, evaluation of medical laboratory tests, management of the medically compromised patient, medical emergencies, and requirements of the Occupational Safety and Health Administration.

### **CDM 2280—Internal Medicine for Dentists**

This lecture course will expose D2 students to the applied principles of diagnosis of the medically complex patient and the translation of these principles into clinical practice. Students will be exposed to lectures given in a review of systems format. All lectures will present a specific system/disorder with emphasis on definition, epidemiology, pathophysiology and complications, clinical presentation, medical management, and dental management. Concepts of antibiotic premedication and medical consultation will be introduced. Each lecture will reinforce previously encountered concepts of pathology and physiology, translate these concepts into a clinical venue, and then apply dental management techniques that are necessary to safely manage patients in a clinical practice.

### **CDM 2505—Radiology Preclinical Laboratory**

Preclinical laboratory course to prepare the student in intraoral and extraoral radiographic techniques. The student will demonstrate basic clinical skills in the fundamentals of dental radiography while producing an acceptable radiographic examination on a manikin. The importance of operator and patient protection standards when using ionizing radiation is emphasized.

### **CDM 3010—Oral and Maxillofacial Diagnosis II**

Didactic course focuses on the etiology, clinical, histologic, and radiographic appearance and treatment of specific disease entities involving the head and neck. Differential diagnosis is empha-

sized, giving clinical relevance to the discipline.

### **CDM 3011—Oral and Maxillofacial Diagnosis III**

Continuance of CDM 3010, Oral Pathology I, didactic course focuses on the etiology, clinical, and histologic appearance and treatment of specific disease entities involving the head and neck. Differential diagnosis is emphasized, giving clinical relevance to the discipline.

### **CDM 3020—Oral Medicine**

Didactic course continues and builds on the knowledge base gained in the basic medical sciences and Introduction to Oral Medicine. A comprehensive study of both hard and soft tissue lesions manifesting in the oral cavity and related head and neck structures is presented.

### **CDM 3021—Common Oral Conditions**

A continuation of Introduction to Oral Medicine and Oral Medicine. The lectures are presented to develop the skills of interpreting a medical history through head and neck examinations and the dental management of the medically complex patient. The course will discuss the diagnosis and management of common oral and orofacial conditions as well as how to provide safe and effective oral health care for patients with life threatening medical disorders.

### **CDM 3650 and CDM 4650—Radiology Clinic I and II**

Students perform radiographic techniques and interpretations in a clinical setting.

### **CDM 4020—Clinical Oral Medicine Case Presentations**

Clinical manifestations of common systemic disorders are discussed to help students in making a tentative presumption diagnosis and developing a differential diagnosis. Each student will prepare a PowerPoint presentation on a patient with an oral soft tissue lesion for presentation to his or her class. Self assessment will be done at that time.

### **CDM 4170—Oral Manifestations of Disease**

A case-based presentation of common conditions and diseases that patients will bring to the general practitioner. The goal is to review the physiology, clinical signs and symptoms, and the modifications to dental treatment that may be necessary. Also to be included are pharmacotherapeutics of common oral conditions, tobacco cessation, and recommendation for referrals to dental specialists.

### **CDM 4505—Clinical Emergency Rotations I and II**

The fourth-year student will develop a systematic approach to evaluating a patient who presents with severe pain or swelling in the orofacial region. The student will present an emergency treatment plan and provide the treatment as appropriate. Students on rotation will participate in a grand-rounds summary at the close of each session to review specific patients and techniques.

### **CDM 4404H—Oral Medicine Honors**

This honors course will allow students with a special interest in the discipline of oral medicine to increase their

exposure to patient cases involving advanced decision-making and clinical management skills beyond the scope of the predoctoral curriculum.

#### **CDM 425E—Forensic Odontology Elective**

Forensic Odontology is an elective course offered to six qualified D4 students. The course format will include didactic and hands-on components that will be presented at the Broward County Medical Examiners Office. The didactic portion will include lectures on anthropology, toxicology, crime scene investigation, head and neck anatomy, dental charting, nomenclature, WinID, and Dexis Imaging Systems. The hands-on component will require the student to assess unidentified remains collectively through charting, digital imaging, online ID media, and NCIC database forms. The above instructional exercises will be faculty-supervised at all times.

#### **CDM 426E— Cone Beam CT Elective**

The basic concepts of cone beam CT (CBCT) are presented, including navigation through iCATVision software and clinical applications. Diagnosis of radiological findings is reviewed.

### **Prosthodontics**

Section Chair and Professor: **S. C. Siegel** | Professors: **J. Antonelli, F. Kohler, J. Thompson** | Associate Professors: **A. Gotlieb, L. Krasne** | Assistant Professors: **R. Castellon, A. Godoy, M. Golberg, J.M. Hervas, C.J. Hsu, F. Jimenez, E. Lara, H. Lippman, M. Nahon, M. Pasciuta,**

**M. Romer** | Adjunct Faculty: **R. Acosta-Ortiz, T. Balshi, S. Berger, G. Bozzuti, W. Donaldson, C. Drago, A. Duque, J. Gartner, S. Goldenberg, M. Greenberg, N. Guzman, K. Iglesias, D. Jackson, G. Kolos, R. Lichtman, M. Malo, D. Matthews, M. Mendelson, E. Neuwirth, M. Patten, M. Platt, M. Pomerantz, M. Radu, M.V. Rampertaap, S. Resnick, M. Richards, D. Rolfe, D. Roy, R. Sanchez, R. Selz, B. Sharpe, B. Shipman, Z. Staller, A. Warren, D. Wessel, G. Wolfinger** | Assistant Professor and Director of Postgraduate Prosthodontics: **M. Nahon**

#### **CDM 1100— Dental Biomaterials I Lecture**

At the end of this course, students will be able to understand the optimum performance requirements, properties, and handling characteristics for specific dental materials. They will understand the selection criteria based on clinical significance of the mechanical and physical properties of dental materials.

#### **CDM 1220—Occlusion I Lecture**

Occlusion is the branch of dentistry that relates to the form and function of the masticatory system. Dental students must have a broad understanding of embryology, histology, growth and development, head and neck anatomy, dental anatomy, and physiology. They will be responsible for incorporating the knowledge from current and previous courses to aid in their understanding of occlusion. This course will provide the dental student with basic information and knowledge in dental occlusion and its related topics. Through lectures, the dental student will attain

a comprehensive understanding of the related areas of dental anatomy and occlusion. This course will introduce the concepts of anatomy and normal function of the stomatognathic system.

**CDM 1221—  
Occlusion I Laboratory**

This course will provide the dental student with information and knowledge in dental occlusion and its related topics. Through preclinical procedures, the dental student will attain a comprehensive understanding of related areas of dental anatomy and occlusion. The beginning of the course will be dedicated to practical application of the basic concepts of occlusion in the laboratory. Toward the end, the course will be dedicated to the practical application (laboratory) of more advanced concepts of occlusion. This course will be held in the CDM Sim-lab.

**CDM 1230—  
Dental Biomaterials Laboratory**

At the end of this course, students will be able to understand the optimum performance requirements, properties, and handling characteristics of specific dental materials as well as understanding the selection criteria based on clinical significance of the mechanical and physical properties of dental medicine.

**CDM 2070/CDM 2080—  
Fixed Prosthodontics I  
Lecture/Laboratory**

These courses prepare students to appropriately use the terminology, instrumentation, and psychomotor skills associated with tooth preparation and provisionalization of single and multiple unit cast fixed prosthodontic restorations.

**CDM 2090/CDM 2100—  
Removable Partial Prosthodontics  
Lecture/Laboratory**

These courses provide fundamental technical knowledge, concepts, and skills to appropriately diagnose, treatment plan, and restore oral conditions that require replacement of lost teeth and their associated structures using removable partial dentures.

**CDM 2101—  
Dental Biomaterials II Lecture**

At the end of this course, the students will be able to understand the optimum performance requirements, properties, and handling characteristics for specific dental materials, as well as understand the selection criteria based on clinical significance of the mechanical and physical properties of dental materials.

**CDM 2102—  
Dental Biomaterials II Laboratory**

At the end of this course, the students will be able to understand the optimum performance requirements, properties and handling characteristics of several dental materials, as well as understand the clinical significance of the mechanical and physical properties of dental materials.

**CDM 2220/CDM 2230—  
Complete Denture Prosthodontics  
Lecture/Laboratory**

These courses prepare students to appropriately use the terminology and gain the fundamental technical knowledge, principles, and skills to replace lost teeth and their associated structures with complete dentures.



**CDM 2260/CDM 2270—  
Fixed Prosthodontics II  
Lecture/Laboratory**

The lecture course presents theory and technique of anterior and posterior fixed partial dentures, porcelain application, and treatment of endodontically treated teeth as they relate to the overall restorative treatment of the patient. This course, in conjunction with the laboratory course, provides the foundation for the student to use the same knowledge and techniques that will be used in clinical application.

**CDM 3060—TMD**

This course is a series of lectures that present the clinical evaluation, diagnosis, and management of patients that present with pain and/or dysfunction in the masticatory system (temporomandibular disorders) and other related orofacial pain conditions.

**CDM 3120—  
Implant Restorative Dentistry  
Lecture**

This course is one of comparative implantology, which emphasizes the biological background related to implant systems. Demonstrations and case presentations will be provided. Evidence-based studies are referenced.

**CDM 3130—Cosmetic Dentistry**

This course provides formal lecture presentations and practical laboratory projects to help prepare and familiarize students with esthetic dental procedures commonly performed by general dentists.

**CDM 3200—Laboratory and  
Clinical Applications of Occlusion**

After completion of this clinic-laboratory course, the dental student should be able to perform impressions, obtain face bow record, obtain occlusal records, properly mount the casts in the articulator and perform an occlusal analysis in the clinical setting, and use these records for diagnostic purposes.

**CDM 3221—  
Advanced Clinical Occlusion**

This course will provide the dental students with a complete understanding of the normal function of the masticatory system and will be the introduction to the studies on occlusal analysis and occlusal diagnosis. Through lectures and preclinical and guided clinical procedures, the dental students will attain a comprehensive understanding on all the related areas of dental anatomy and occlusion.

**CDM 3410—Clinical Fixed  
Prosthodontics I, II**

Clinical experience consists of preparing and placing anterior and posterior fixed partial dentures and single coronal restorations. Restorations may be of full gold, complete porcelain, or a combination of the two. Restorations on implants are an integral part of the clinical experience. All clinical treatment is accomplished under the direct supervision of faculty members. A clinical rotation with the postgraduate prosthodontics residents is part of this course.

**CDM 3411—Clinical Removable  
Prosthodontics I, II, III**

Clinical application of preclinical skills in complete and removable

dentures, overdentures on teeth and implants are accomplished on patients. All patients are treated in the comprehensive care format with emphasis on the whole head and neck. All clinical treatment is accomplished under the direct supervision of faculty members.

#### **CDM 3420—Clinical Fixed Prosthodontics III**

Clinical experience consists of preparing and placing anterior and posterior fixed partial dentures and single coronal restorations. Restorations may be of full gold, complete porcelain, or a combination of the two. Restorations on implants are an integral part of the clinical experience. All clinical treatment is accomplished under the direct supervision of faculty members. A clinical rotation with the postgraduate prosthodontics residents is part of this course.

#### **CDM 3530—Evidenced-Based Dentistry in Clinical Practice**

This lecture series presents historical aspects of the development of critical thinking in health care. The course provides the student with different sources for accessing scientific information and reviews scientific articles and principles in observational and epidemiological studies. It stresses the importance of evidenced-based cases and the principles of clinical decision-making and statistics methodology.

#### **CDM 4410— Clinical Fixed Prosthodontics IV, V, VI**

Clinical experience consists of preparing and placing anterior and posterior fixed partial dentures and single coronal restorations. Restorations may be of full gold, complete porcelain, or a

combination of the two. Restorations on implants are an integral part of the clinical experience. All clinical treatment is accomplished under the direct supervision of faculty members.

#### **CDM 4411—Clinical Removable Prosthodontics IV**

Clinical application of preclinical skills in complete and removable dentures, overdentures on teeth and implants are accomplished on patients. All patients are treated in the comprehensive care format with emphasis on the whole head and neck. All clinical treatment is accomplished under the direct supervision of faculty members.

#### **CDM 412H—Honors Prosthodontics**

Advanced students with a high interest in prosthodontics attend advanced prosthodontic seminars and gain advanced experience in clinical prosthodontics, treating more complex patients.

#### **CDM 420E—Oral Radiosurgery Lecture and Laboratory**

Students will understand the physics of radiosurgery, histological changes in tissues where electrosurgery is used, indications for the use, postoperative cares, and the use of the electrosurgery unit. This course applies the principles and techniques learned by using the electrosurgery unit on actual tissue.

#### **CDM 427E—CAD/CAM Elective**

This combined lecture and laboratory course in CAD/CAM restorative dentistry presents the theory and practical application of high-tech dentistry. Students will learn about the various systems for digital impres-

sion making and manufacture of restorations in the computer-assisted practice of the 21st century, including the Sirona (Cerec), E 4D (Lava), 3i Biomet, Cadent (Itero), Procera Forte (NobelBioCare), and Etkon Scanner (Straumann) Systems. The laboratory component of the course will incorporate preparing teeth as well as making impressions for natural teeth and implants and completing the final restoration.

## **DIVISION OF DEVELOPMENTAL SCIENCES**

Division Chief: **J. Kronmiller**

### **Community Dentistry and AEGD**

Section Chair: **D. Ede-Nichols** |  
Assistant Professors: **J. Rodriguez, E. Shehadeh, F. Slavichak, B. Waterman** |  
Clinical Instructors: **S. Ellen, E. Suzuki** |  
Adjunct Faculty: **A. Bezzer, M. Brothers, A. Burch, R. Cantor, L. Gillmore, R. Jabbar**y

The community dentistry curriculum serves to introduce the pre- and postdoctoral student to the underserved population within our community—including patients with developmental, acquired, medical, and mental disabilities and the frail elderly. It also includes ethics, behavioral science, issues related to the dental profession, and practice management. The curriculum integrates the didactic and clinical education by incorporating extramural rotations, externships, community health fairs, and residency programs. In addition, NSU-CDM has created the Institute for Special Needs Dentistry, located in the main clinic on the Davie campus. The institute allows for the enhance-

ment of clinical training of students while providing much-needed dental care to these underserved populations.

### **CDM 1050—**

#### **Ethics and Professionalism**

This introductory course will provide the new student with an awareness of the ethical issues in the dental profession and expected behavior at the College of Dental Medicine. In addition, students will develop an understanding of the impact of various ethical issues as they relate to their dental education and future practices.

### **CDM 2085—Introduction to Special Needs Dentistry**

Introduction to Special Needs Dentistry is a didactic course that will define special needs patients, focus on their oral health needs, and present methodology for overcoming the lack of care in this patient population.

### **CDM 3080—Behavioral Sciences**

This course provides dental students with interviewing strategies, communication skills, and an introduction to the theories and research pertaining to anxiety, with specific interventions geared to reduce tension and fear. Students will be exposed to various interviewing and communication techniques as well as theories regarding the etiology of anxiety. Students will gain familiarity with psychological and physiological indices of arousal. It is the goal of this course to acquaint dental students with well-established interventions, including progressive muscle relaxation, systematic desensitization, biofeedback, and the relationship of anxiety/stress to pain syndromes.

### **CDM 3090—Introduction to the Dental Profession**

Practice management and organizational theory, economic theory, and practical aspects of managing a dental practice.

### **CDM 3140—Special Needs Dentistry**

CDM 3140 is a semester-long didactic course that presents a curriculum that introduces the predoctoral student to the pathophysiology of patients with special needs. The course will also demonstrate the management tools and techniques necessary for the provision of dental care to this underserved population in both the academic arena and the private practice setting.

### **CDM 4611—Community Dentistry Rotation I**

The community dentistry rotation is designed to complement the didactic course CDM 3140, presented in the winter semester of the D3 year. D4 students will use the didactic information to evaluate, assess, and provide treatment for individuals with developmental and acquired disabilities, medically and psychologically compromised patients, and the frail elderly. The D4 students will become familiar with the medical chart, responding to requests for dental consult, and the behavioral management issues of treating those with special needs.

### **Orthodontics**

Section Chair, Professor, and Interim Director of Postgraduate Orthodontics: **J. Kronmiller** | Director of Predoctoral Orthodontics and Assistant Professor: **O. Sotsky** | Professors:

**A. Lifshitz, J. Burch, M. Meister** | Assistant Professors: **S. Kessel, S. Khatami, S. Real, R. Singer** | Adjunct Faculty: **J. Coro, A. Kapit, N. Le, B. Matza, J. Morrish, D. Naffah, R. Shults, J. Singer, D. Tartakow** | Visiting Professors: **Z. Davidovich, S. Rosenstein**

### **CDM 2005—Craniofacial Growth and Development**

This course is intended to be an introductory course in craniofacial growth and development. Introductory and general concepts of somatic and craniofacial growth will be presented. Theories of craniofacial growth and development, the method of directional descent of the maxillary and mandibular complex, and correlation with the development of the occlusion will be included.

### **CDM 2200—Orthodontics Lecture/Laboratory**

The orthodontics lecture course is designed to teach students to assess normal and abnormal growth and development, diagnosis and classification of malocclusion, and differentiation between limited and comprehensive orthodontic treatment. The orthodontics laboratory course is designed to teach principles and concepts used in treatment in orthodontics and dentofacial orthopedics. Laboratory skills are taught in orthodontic mechanotherapy, enabling students to participate in the clinical experience.

### **CDM 3605—Orthodontic Clinical Co-management Program**

The predoctoral student will work with the postgraduate orthodontic student in all phases of orthodontic care including examination, diagnosis,

tic record taking, analysis, diagnosis, differential diagnosis, and treatment planning. The predoctoral student will join the postgraduate student in the postgraduate clinic for patients' orthodontic appointments, assisting in all phases of clinical care.

#### **CDM 414H—Honors Program in Orthodontics and Facial Orthopedics**

This optional Honors course provides the interested student with an opportunity to further his or her knowledge in limited, co-management orthodontic treatment with postgraduate residents and their patients through attendance at postgraduate diagnostic conferences and continued learning of orthodontic diagnosis and treatment planning.

#### **Pediatric Dentistry**

Section Chair, Professor, and Director of Predoctoral Pediatric Dentistry: **R. Ocanto** | Director for Postgraduate Pediatric Dentistry: **W Trevarthen** | Assistant Professors: **H. Beaver, J. Larumbe, A. Noguera** | Adjunct Professors: **D. Arnold, J. Bazos, S. Brener, Y. Gomez-Ruane, H. Hill, H. Schneider, R. Sherman, E. Stelnicki**

#### **CDM 2081—Introduction to Pediatric Dentistry**

This course is a primer on the diagnosis and treatment planning of primary and mixed dentition patients. Emphasis will be placed on dental disease, etiology, and prevention, recognition and management of disorders common in childhood. This course prepares students for the sec-

ond semester didactic and laboratory experience in pediatric dentistry.

#### **CDM 2180—Pediatric Dentistry Lecture**

Provides the student with an overview of “normalcy” as well as the most common disorders and conditions in children. Diagnosis and treatment planning of pediatric patients with primary, transitional, and permanent dentitions are emphasized. This includes behavior management techniques, the development and morphology of the dentition, oral surgery and oral pathology, restorative and preventive procedures and materials, pulpal and periodontal therapy, traumatic injuries, space management, and oral habits. This course prepares students for their clinical interactions with children.

#### **CDM 2190—Pediatric Dentistry Laboratory**

Behavioral and interpersonal components of working with children, basic information related to pediatric dentistry, concepts of facial and dental growth and development, and primary and permanent teeth.

#### **CDM 3525—Clinical Pediatric Dentistry Rotations I and II**

This course includes the clinical application of preclinical pediatric dentistry skills in children and adolescents. All patients are treated in a comprehensive care format with emphasis in: 1) nonpharmacological behavioral management; 2) record keeping, comprehensive diagnosis, and treatment planning; 3) common oral lesions and recommended treatments, 4) restorative dentistry including composite and amalgam restorations in primary and mixed

dentition, anterior composites, pulp therapy, and stainless steel crowns; and 5) interceptive orthodontics. All clinical treatment is accomplished under the direct supervision of faculty members from the Department of Pediatric Dentistry.

#### **CDM 4525—Clinical Pediatric Dentistry Rotations III and IV**

Clinical application of pediatric dentistry preclinical skills and clinical skills acquired during the D3 year are accomplished in a population of indigent children attending extramural dental clinics in South Florida. All patients are treated in a comprehensive care format with emphasis in: 1) nonpharmacological behavioral management; 2) record keeping, comprehensive diagnosis, and treatment planning; 3) common oral lesions and recommended treatments, 4) restorative dentistry including composite and amalgam restorations in primary and mixed dentition, anterior composites, pulp therapy, and stainless steel crowns; and 5) interceptive orthodontics (space analysis and maintenance). All clinical treatment is accomplished under the direct supervision of faculty members from the Department of Pediatric Dentistry.

#### **CDM 410H— Honors Pediatric Dentistry**

### **DIVISION OF SURGICAL SCIENCES**

Division Chief: : **K. Namerow**

#### **Endodontics**

Section Chair and Professor: **K. Namerow** | Postgraduate Program Director and Professor: **O. Bolanos** |

Professors: **S. Kuttler, P. Murray, S. Oliet, R. Uchin** | Associate Professor: **R. Seltzer** | Assistant Professors: **R. Gelman, M. Marchesan, T. Sayin** | Adjunct Faculty: **S. Berman, I. Epelman, M. Flax, J. Glickman, A. Helfer, R. Herman, A. Lane, V. Manjarres, G. Mitchell, L. Mitchell, I. Moldauer, P. Ossa-Gomez, B. Porras, R. Powell, T. Roud, J. Satovsky, J. Silberman, A. Skidmore, J. Slingbaum**

#### **CDM 2050—Endodontics Lecture**

This course is an introduction to the theory and practice of endodontics. It presents the fundamental principles of the treatment of pulpal and periapical disease. Along with CDM 2060, it prepares the student to provide clinical endodontic treatment.

#### **CDM 2060— Endodontics Laboratory**

This course is an introduction to the actual treatment procedures required to treat pulpal disease. By carrying out procedures on extracted teeth from each tooth group, this course, along with CDM 2050, prepares the student to provide clinical endodontic treatment.

#### **CDM 2250— Endodontics Clinical Lecture**

This course serves to enhance the knowledge and understanding beyond the basic concepts for predoctoral students. The students' ability to apply these concepts to their own patients and to recognize situations that are beyond their skills, thus requiring referrals, are developed and emphasized.

#### **CDM 3621—Clinical Endodontics I**

Junior dental students are taught clinical endodontic treatment of

single-rooted and multirooted teeth (premolars and molars). This includes diagnosing a tooth with pulpal problems as well as sequencing of endodontic treatment in the treatment plan. Proper documentation in the treatment record, anesthesia techniques, patient management, and root canal therapy are also discussed.

#### **CDM 4621— Clinical Endodontics II**

Senior dental students display proficiency and knowledge of anesthetic techniques, patient management, and endodontic treatment of single-rooted and multirooted teeth (premolars and molars). They also manage endodontic emergencies. The completion of competency requirements demonstrates that students have reached the level of “safe starter” to treat basic endodontic cases in the practice of general dentistry.

#### **CDM 400H—Honors Endodontics**

The honors program offers students who are beginning their fourth year of dental school the opportunity to apply for honors courses in one of eight different specialties. Candidate selection will be based on the approval of the associate dean of academic affairs and the director of clinics, as well as criteria established by each participating department chair. Students who are selected will take part in postdoctoral-level seminars, case presentations, and research. Additionally, honors students will assist in the diagnosis, treatment planning, and care of complex patients. The specific format of each honors program course will be provided to students at the time their applications are submitted.

#### **CDM 403E—Advanced Elective in Endodontics**

This course provides an opportunity for fourth-year students to continue their endodontic experience at a more advanced level. Students will participate in seminars that stress clinical situations and may also attend graduate seminars. Advanced elective students are encouraged to prepare and present a PowerPoint presentation as well. Students who have demonstrated superior clinical skills may be eligible to treat more challenging clinical cases.

#### **Oral and Maxillofacial Surgery**

Section Chair and Professor: **S. Kaltman** | Postgraduate Program Director and Professor: **E. Lopez** | Predoctoral Director and Assistant Professor: **A. Ospina** | Postgraduate Research Director and Assistant Professor: **S. McClure** | Adjunct Professors: **E. Blanck, D. Feinerman, L. Garvar, M. Harris, K. Kaner, C. Kates, R. Katz, K. Kim, M. Krohn, T. Koyama, J. McCain, P. Richman, A. Sclar, D. Smith, T. Splaver, S. Stewart** | Visiting Professors: **B. Epker, S. Guttenberg, M. Pikos**

#### **CDM 2040—Pharmacology, Analgesia, and Local Anesthesia I**

Didactic, lecture-oriented course that reviews the anatomy of the head and neck in relation to administration of local anesthesia. Topics covered include the pharmacology of local anesthetics and vasoconstrictors. Delivery and alternative anesthesia techniques are covered in this course.

### **CDM 2150—Oral and Maxillofacial Surgery I**

A didactic, lecture-oriented course that is reinforced with hands-on practical sessions and demonstrations. Fundamentally, the predoctoral program is designed to prepare the student in oral and maxillofacial surgery as it relates to the practice of general dentistry. The major objective of this course is to provide introductory information on the full scope of oral and maxillofacial surgery.

### **CDM 2170—Pharmacology, Analgesia, and Local Anesthesia II**

This is a didactic, lecture-oriented course that is reinforced with hands-on practical sessions and demonstrations, expanding on the background begun in CDM 2040. Topics include a review of local anesthesia techniques and basic information about alternative techniques of pain and anxiety control, such as oral sedation, nitrous oxide, IV sedation, and general anesthesia.

### **CDM 3040—Oral and Maxillofacial Surgery II**

Didactic, lecture-oriented course expanding on the background begun in the second semester of the sophomore year. Formal presentations to review the techniques of tooth extraction will be incorporated logically in sequence, incorporating pertinent review of the basic sciences. Hands-on instruction will be provided chairside. Students will also be exposed to more complex and modern practices in oral and maxillofacial surgery. This includes orthognathic surgery, TMJ surgery, pathology, and reconstruction surgery.

### **CDM 3507— Clinical OMFS Rotation I**

Third-year students are assigned to clinical rotations to observe and to provide surgical treatment for patients

requiring dentoalveolar surgery and the management of odontogenic infections. Proficiency in patient evaluation and surgical techniques is stressed.

### **CDM 4507— Clinical OMFS Rotation III**

Fourth-year students are assigned to clinical rotations to observe and to provide surgical treatment for patients requiring dentoalveolar surgery and the management of odontogenic infections. Proficiency in patient evaluation and surgical techniques is stressed. The student will be required to demonstrate competency in routine tooth extraction, flap elevation for more difficult extractions, and other minor oral surgical procedures.

### **CDM 4999—Advanced Techniques in Pain and Anxiety Control**

The goal of this course is to introduce the wide spectrum of pain and anxiety control available in dentistry. During this course, the student will establish a basic understanding of the additional techniques available to the dental practitioner to cope with the problems of anxiety and fear commonly found in dental patients. The advanced techniques learned are not only used for the purpose of aiding the fearful dental patient, but also in prevention of medical emergencies in the dental office by attenuating the potentially harmful effects associated with the stress response. Hands-on instruction will be provided.

### **Periodontology**

Section Chair, Associate Professor, and Director of Postdoctoral Periodontology: **W. Parker |**



Assistant Professors: **D. Bronstein, S. Galperin, J. S. Han, M. Hernandez, T. Kang, M. Roth** | Instructor: **K. DeMonaco, S. Sanders** | Adjunct Associate Professors: **M. Forrest, J. Ganeles, L. Garfinkel** | Adjunct Assistant Professors: **N. Dalal, N. DeTure, R. Eisenberg, I. Freedman, I. Garazi, B. Garcia, I. Ginsberg, D. Glassman, M. Gordon, A. Horowitz, M. Lieberman, F. Norkin, L. Ostroff, M. Rosenbluth, S. Ross, L. Shapiro, A. Wang** | Adjunct Instructors: **R. Charin, M. Cohen, J. Hernandez, L. Hochman, J. Kagan, L. Kiracofe, E. Mellman, J. Miller, C. Ospina, N. Powell, C. Rhoads, S. Salzman, M. Sepe, R. Shamet, K. Wang, S. Weinstein**, | Visiting Professor: **S. Stahl**

### **CDM 1070—Periodontology I**

This course provides an overview of periodontology and defines basic terminology. The relationship of anatomical structures relative to the periodontium; recognition and assessment of health and disease of the periodontium; introduction to histology of the gingival crevice in health, disease, and periodontal pathology; and the interrelationship between gingival microbiota, the formation of dental plaque, and gingival disease are discussed. Comprehensive periodontal examination and transcription of clinical and radiographic findings into records are also gone over, as well as an introduction to periodontal diagnoses.

### **CDM 1185—Introduction to Clinical Periodontology**

Gives students the opportunity to apply the knowledge learned in Periodontology I and additional lectures in Periodontology II, which involve understanding and application of clinical data collection, examination

of the periodontium, and instrumentation techniques. Students are required to apply their knowledge first on mannequins in simulation lab and then with their classmates.

### **CDM 2030—Periodontology II**

Review of normal structures: anatomic and histologic. The earliest gingival inflammatory lesion: clinical signs and symptoms. Gingivitis: clinical features, underlying etiology, microbial shifts, and diagnosis and rationale for treatment. Clinical, microbiologic, and histologic alterations in response to local irritants, host responses, inflammation and loss of attachment. The gingival and periodontal abscess, the gingival lesion in AIDS, necrotizing ulcerative gingivitis, and herpetic gingivostomatitis.

### **CDM 2160—Periodontology III**

Histopathology of periodontal lesions, root planing, early periodontitis, and moderate and advanced periodontitis. Histopathology of tooth mobility, injury and repair. Treatment of the early gingival/periodontal lesion. The rationale and implementation of maintenance procedures for establishing prolonged gingival health.

### **CDM 2185—IDG Clinical Periodontology Orientation**

This course is a review for international dental graduates in periodontal instrumentation, techniques, and management of patient oral hygiene. Additionally, the course includes training in protection of health care records (HIPAA) and training in occupational safety (OSHA).

### **CDM 402H—Perio Honors Program**

This course provides predoctoral students with the opportunity of

assisting and performing periodontal surgical procedures. The objectives of the course are to help students to understand surgical anatomy related to periodontal surgery and principles of periodontal surgery, and to understand indications and sequencing of different modalities of periodontal surgical procedures. In addition, students will perform periodontal surgery including crown lengthening, gingivectomy/gingivoplasty and frenectomy.

#### **CDM 2501—**

##### **Periodontology III Clinic**

The purpose of this year in periodontology is to provide students with clinical experience to recognize periodontal disease of the hard and soft tissues and develop a process for formulating a properly sequenced and effective periodontal treatment plan, focusing on early to moderate periodontitis. In addition, students will be exposed to protocols relative to implant maintenance.

#### **CDM 3030—Periodontology IV**

Treatment planning and options available for the treatment of early to moderate periodontitis. Etiology, histopathology, and treatment of refractory periodontitis, early periodontitis, and localized juvenile periodontitis.

#### **CDM 3501—**

##### **Clinical Periodontology V**

The purpose of this year in periodontology is to provide students clinical experience to recognize periodontal disease of the hard and soft tissues and develop a process for formulating a properly sequenced and effective periodontal treatment plan, focusing on early to moderate periodontitis. In addition, students

will be exposed to protocols relative to implant maintenance.

#### **CDM 3503—**

##### **Clinical Periodontology Rotation**

The purpose of this year in periodontology is to provide students with the opportunity to assist in periodontal surgical procedures at the postgraduate periodontics level. Students will be exposed to different modalities of periodontal surgical procedures.

#### **CDM 4501—**

##### **Clinical Periodontology VII**

The purpose of this year in periodontology is to provide students with clinical experience to recognize periodontal disease of the hard and soft tissues and develop a process for formulating a proper sequences and effective periodontal treatment plan, focusing on early to moderate periodontitis. Students will be exposed to protocols relative to implant maintenance. In addition, students will correlate interrelationships of periodontal medicine relative to low birth weight babies, cardiovascular disease, osteoporosis, and diabetes.

## **Related Educational Programs**

The College of Dental Medicine also offers the following programs:

### **D.O./D.M.D. Collaborative Degree Program**

In order to address the access to care issues and meet the needs of underserved populations, Nova Southeastern University's College of Dental Medicine and College of Osteopathic Medicine have structured a curriculum that provides students

with an opportunity to receive a D.M.D. (Doctor of Dental Medicine) and D.O. (Doctor of Osteopathic Medicine) degree. This D.O./D.M.D. Collaborative Degree Program is symbiotic with the missions of both schools. Graduates of the dual program will provide health care that will address preventive medicine and general dentistry, as well as access to care issues, and meet the needs of rural and underserved populations.

### **D.M.D./Master's Degree in Health Law**

Students seeking specialized knowledge in law as related to health care may apply for admission to the D.M.D./Master's Degree in Health Law Program. The master's degree in health law is an online program offered by NSU's Shepard Broad Law Center, requiring significant self-directed study and learning.

### **D.M.D./Master's Degree in Public Health**

An academic track providing specialized knowledge in public health, leading to the M.P.H. degree, with the doctor of dental medicine curriculum will enhance career prospects in government and private health care enterprises. This program will require 6–12 months of additional study beyond the four years needed for the D.M.D. Application may be made on successful completion of the first dental-school year.

### **D.M.D./Master's or Doctoral Degree in Health Care Education**

In the third dental year, applicants considering part-time or full-time teaching and administration in dental education and whose clinical competencies are current

may apply for enrollment in either the master's degree or doctoral degree in health care education programs. Candidates for the master's degree in health care education will spend the year after dental school graduation in full-time study in education, while doctoral candidates will invest two to three years of study in education after receipt of the D.M.D. degree.

### **Predoctoral Honors Research Program**

Students showing exceptional performance in basic sciences, laboratory, and clinical dentistry will be eligible for selection to the Predoctoral Honors Research Program. Under the supervision of faculty members, these students will gain familiarity with the scientific method and engage in laboratory and clinical research leading to preparation and presentation of a scientific article. One credit per semester may be earned through this program.

### **Predoctoral Honors Peer Tutoring**

Students with exceptional academic records will be eligible to offer peer tutoring classes to predoctoral students in need of academic assistance. Peer tutors will receive transcript credit and an hourly wage for their time.

### **Predoctoral Honors Clinical Participation Program**

Students with exceptional academic records will be eligible for special clinical experiences in the third and fourth years of predoctoral study in endodontics, oral surgery, orthodontics, pediatric dentistry, and restorative dentistry. Selection of such participants will be at the discretion of the department chairperson.

## Research

The College of Dental Medicine in the Health Professions Division of Nova Southeastern University provides an active and collaborative research environment that is growing rapidly. The NSU College of Dental Medicine has full-time research faculty members that include D.D.S./D.M.D./Ph.D.s and basic science Ph.D.s. Additionally, there are other full-time clinical faculty members with advanced degrees that mentor our health professional postdoctoral students on research activities.

The NSU College of Dental Medicine is currently engaged in research areas that meet the national agenda such as neoplastic diseases of the head and neck, bacterial genetics, craniofacial anomalies and healing, infectious diseases, biomaterials, biomimetics and tissue engineering, systemic manifestations of oral disease, and diabetes. Our research program is also expected to attract, develop, and train scientists with an appreciation for research directed toward the needs of underserved and special care populations, including geriatrics, and to meeting health disparities in health care and health care delivery.

The continuous development of research infrastructure and research training programs within the College of Dental Medicine and the Health Professions Division significantly strengthens the research program at the dental college. The international experience of the faculty members and the opportunities for research exchange also add strength and diversity to the research program.

## Postdoctoral Programs

The College of Dental Medicine developed postdoctoral specialty training programs in several fields starting in the fall of 1997. There are training positions available in endodontics, orthodontics, pediatric dentistry, periodontology, prosthodontics, advanced education in general dentistry, and oral and maxillofacial surgery.

These programs are supervised by board-certified and educationally qualified dental specialists.

Lectures, seminars, and multidisciplinary conferences related to patients and their dental treatment, as well as in research, are conducted. Students also serve as instructors in the predoctoral laboratory and clinic. An original research project must be completed by each student. Upon successful completion of the program requirements, trainees receive certificates in their respective specialties.

### Postdoctoral Core Courses

All postdoctoral students are required to take the following courses during their first year:

#### **CDM 5000—Advanced Dental Radiology**

Consideration of hard and soft tissue craniofacial imaging modalities, including MRI, tomography, and digital imaging.

#### **CDM 5004—Advanced Oral Histology and Embryology**

Cytological and developmental considerations in embryological, fetal, and neonatal human craniofacial growth and development.

### **CDM 5006—Fundamentals of Biostatistics**

Analysis of descriptive and inferential statistics as used in contemporary biomedical research, including electronic-based statistical programs.

### **CDM 5002—Research Design**

The objective of this course is to learn how to plan research projects, initiate the projects, and effectively present the findings. Critical evaluation of the literature about the field of interest will be emphasized.

### **CDM 5003—Advanced Microbiology and Cell Biology**

This course offers graduate training in microbiology, including virology, bacteriology, microbial genetics, and microbial pathogenesis.

### **CDM 5008—Advanced Medical Physiology**

This course gives a detailed examination of cells and their transport—cardiac, pulmonary, and acid base—as related to maintenance of oral health and onset of disease.

### **CDM 5109—Ethics and Jurisprudence**

This course reviews hallmarks of dental professional ethics and aspects of the law that commonly impact on the daily practice of dentistry.

### **CDM 5102—Advanced Oral and Maxillofacial Pathology**

Gross and histological specimen consideration in hard and soft tissue diseases of the oral and maxillofacial structures.

### **CDM 5103—Advanced Head and Neck Anatomy Lecture Series**

Didactic and dissection-based consideration of head and neck structure

and function essential to advanced dental practice.

### **CDM 5104—Advanced Head and Neck Anatomy Lab Series**

Laboratory-based consideration of head and neck structure and function essential to advanced dental practice.

### **CDM 5106—Advanced Systemic Oral Medicine and Pharmacology**

This course expands on the predoctoral education regarding the topic of oral medicine. The seminars will discuss current and classic literature to help refine the skills of students in interpreting a medical history and dental management of medically complex patients.

Additionally, postdoctoral students are required to take didactic and clinical courses within their respective area of specialization throughout their training.

## **Postdoctoral Specialties**

### **Postdoctoral Endodontics**

The postdoctoral program in endodontics is a 24-month certificate or 36-month master's degree program that balances clinical experience with didactic instruction in the relevant basic and clinical sciences.

The clinical portion of the program is microscopically oriented, providing the student with modern concepts of endodontic treatment including rotary NiTi instrumentation, electronic apex locators, guided tissue regeneration, ultrasonic instrumentation, and use of digital radiography. Joint conferences with other disciplines such as periodontics, prosthodontics, pediatric dentistry,

otolaryngology, and neurology provide the student with a well-rounded basis to diagnose and treat conditions in the head and neck region.

The didactic portion of the program includes a core curriculum designed to provide all postdoctoral students with a basic interdisciplinary education and a detailed endodontic curriculum that concentrates heavily on knowledge of the literature. The program is designed to fulfill the specialty certification of the American Board of Endodontics. The program also includes research, teaching, and instruction by several well-known visiting professors.

In addition to the postdoctoral core courses offered during the first year of the program, all postdoctoral endodontic students are required to take the following courses:

#### **CDM 5010—Advanced Clinical Endodontics I**

This course offers clinical instruction and demonstration in the art of diagnosis and treatment planning. Collection and careful analysis of advanced diagnostic test results in consultation with other disciplines is emphasized.

#### **CDM 5118—Advanced Immunology Course**

This course will provide an advanced understanding of the human innate and adaptive immune systems that are relevant to dentistry and craniofacial research.

#### **CDM 5020—Advanced Didactic Endodontics I**

The biological and technical principles of isolation, access cavity

preparations, irrigation, cleaning and shaping procedures, root canal obturation, and restoration of the endodontically treated tooth, as well as nonsurgical root canal retreatment, will be reviewed using a lecture and clinical demonstration format.

#### **CDM 5110—Advanced Clinical Endodontics II**

This course offers clinical instruction and demonstration of different treatment modalities for nonsurgical endodontics. It includes the use of sonic and ultrasonic devices, the dental operating microscope, digital radiography, and documentation.

#### **CDM 5115—Current Literature Review Seminar**

Monthly seminar devoted to the review of current endodontic literature and research from evidence-based journals. Full journals as well as selected articles are carefully reviewed and critically analyzed so that the residents can bring forward their classic literature knowledge.

#### **CDM 5120—Advanced Didactic Endodontics II**

This course reviews management of anxiety and pain control as well as the proper management of endodontic emergencies, including supplemental methods of anesthesia, management of related complications, recognition and management of emergency vs. urgency, and detailed pharmacologic supportive therapy.

#### **CDM 5125, CDM 5126—Classic Literature Review Seminar I and II**

These continual weekly seminars are devoted to review of endodontic and related literature and discussion of

research methods. Selected articles in a particular topic are carefully reviewed and analyzed. The residents learn to critically read and evaluate the scientific evidence that supports endodontic principles and practice.

#### **CDM 5030—Advanced**

##### **Pulp Biology**

This course will provide an advanced education of the physiology and reactions of pulp biology.

#### **CDM 5031—Advanced**

##### **Microbiology**

This course will provide an advanced education of the microbiology of the oral tissues, focusing on pulpitis, infection, disinfection, and asepsis in endodontics.

#### **CDM 5040—Advanced Didactic Endodontics III**

This course gives a detailed description of the effects of pulpal disease and endodontic procedures on the periodontium. Students will learn the different treatment approaches for the different endodontic-periodontal lesions in conjunction with multidisciplinary consultations.

#### **CDM 5135, CDM 5145—Classic Literature Review Seminar III and IV**

These weekly seminars are designed to expand the student's knowledge in endodontics and other related specialties by critically analyzing the classic literature. Each student prepares a critical analysis of a paper identifying the strengths and weaknesses of the research methodology, analysis of results, author's agenda, and clinical significance. Students are exposed to a variety of advanced

subjects, building on their Classic Literature I and II course, including microbiology, periradicular pathology, non-odontogenic pain management, practice management, ancillary procedures, and management of the medically compromised patient.

#### **CDM 5210—Advanced Clinical Endodontics III**

This course offers clinical instruction and demonstration for the proper management of traumatized teeth, including diagnosis, classification, treatment strategies, protocols, and prognosis. Careful consideration is given for the recognition and treatment of short- and long-term complications, i.e., pulp canal obliteration, surface, inflammatory, and replacement resorption.

#### **CDM 5140—Advanced Didactic Endodontics IV**

This course offers a detailed program in endodontic microsurgery including indications and contraindications of apical surgery, use of magnification and illumination, proper flap design, root-end resection, root-end management with ultrasonics, new root-end filling materials, hemisection, replantation, transplantation, and guided tissue regeneration.

#### **CDM 5030—Advanced Clinical Endodontics IV**

This course offers clinical instruction and demonstration in the use of various techniques for the management of the open apex, including long-term vs. short-term treatment approaches. Students will also be exposed to new regenerative pulp therapies.

### **Postdoctoral Oral and Maxillofacial Surgery**

Nova Southeastern University offers a four-year accredited program in oral and maxillofacial surgery sponsored by the College of Dental Medicine. This clinical and didactic program is designed to meet the accreditation standards set forth by the Commission on Dental Accreditation of the American Dental Association and certification requirements of the American Board of Oral and Maxillofacial Surgery.

The program has been designed to give residents a broad academic and didactic experience in the complete spectrum of oral and maxillofacial surgery. To increase the scope of the residents' training and to maximize available clinic exposure, rotations through a multihospital network—including two level I trauma centers and two outpatient clinics—will provide the core teaching sites of the program. Residents will gain experience in the full scope of oral and maxillofacial surgery with particular strengths in the areas of maxillofacial trauma, reconstruction, cleft and craniofacial surgery, cosmetic maxillofacial surgery, temporomandibular joint procedures, and implant surgery. Residents are assigned to formal rotations in anesthesia, medicine, general surgery, trauma surgery, plastics, and head and neck surgery.

The curriculum is designed to develop the clinical, academic, and communicative skills that will provide for diversified career options. Graduates of the program will be prepared to pursue a contemporary full scope oral and maxillofacial surgery practice and be

prepared for licensure and the rigors of special board examination.

### **Postdoctoral Orthodontics**

The Department of Orthodontics offers a 30-month, postdoctoral training program that is designed to fulfill the specialty certification requirements of the American Board of Orthodontics, as well as CODA requirements. Accentuation of the clinical experience is to be expected. Completion of a master's degree thesis is also required to receive the certificate. Each applicant will be required to register for the master's degree program at the same time he or she registers for the orthodontic program. Additional core courses will be required to be completed separate from the Orthodontic Certificate. The postdoctoral program will consist of comprehensive lectures in the relevant basic sciences, as well as seminars and case conferences in the clinical art and science of orthodontics. These didactic sessions are generally held between 8:00 and 10:00 a.m. There will also be daily diagnostic case conferences at 1:00 pm. Some seminars may be given after 5:00 p.m., as well.

Another component of the program includes the clinical treatment of adults, adolescents, and children to enable the resident to develop a proficiency in the use of contemporary orthodontic appliances. Interdisciplinary and dental facial anomalies conferences will also be part of the orthodontic development of the residents. Coordinated treatment plans of complex cases will be accomplished in conjunction with postdoctoral periodontic, prosthodontic, endodontic, and oral and maxillofacial residents



as part of the educational experience. Additionally, residents will gain some teaching experience by aiding in the predoctoral orthodontic education of undergraduate dental students. In general, the clinic times are from 10:00 a.m.–noon and 2:00–5:00 p.m.

Graduates of the program will not only be prepared for certification by the American Board of Orthodontics, they will be prepared to pursue a contemporary orthodontic practice, as well.

### **Postdoctoral Pediatric Dentistry**

The Department of Pediatric Dentistry offers a 24-month postdoctoral program in pediatric dentistry. The program is designed to prepare the student to fulfill the specialty certification of the American Board of Pediatric Dentistry. This university and hospital-based training program includes significant hospital and extramural affiliations in South Florida.

Students are trained in hospital and operating room protocol including the use of general anesthetics.

### **Postdoctoral Periodontology**

The postdoctoral program in periodontology is a 36-month certificate program that fulfills the specialty requirements of the American Dental Association Commission on Dental Accreditation and the American Board of Periodontology. The resident may also elect to pursue the optional Master of Science in Dentistry degree, which may be earned concurrently with the certificate course of study. The program is open to dentists who have graduated (or will graduate) from an accredited United States or Canadian dental school or from

an international dental school that provides an equivalent educational background and standing. Completion of a General Practice Residency, Internship, Advanced Education in General Dentistry, or other post-dental school professional activities are encouraged but not required.

The program consists of a didactic core curriculum in basic and behavioral sciences, a series of seminars in periodontology and implant dentistry, literature review seminars, and periodontal prosthetics. Residents will participate as clinical instructors in the predoctoral periodontology clinic and perform research related to periodontology.

The program is designed so that, at the conclusion of the residents' training, they can provide comprehensive periodontal and implant dentistry care using a variety of surgical and nonsurgical modalities that encompass the full spectrum of the current state-of-the-art procedures. Residents participate in a variety of educational activities that prepare them for careers in clinical practice, education, or research, giving them the skills and knowledge to successfully pursue certification by the American Board of Periodontology.

### **Postdoctoral Prosthodontics**

The 36-month postdoctoral program in prosthodontics is open to all dental school graduates. Internship or residency experience is preferred, but not required.

The program consists of a didactic core curriculum in basic sciences and behavioral sciences; a series of seminar presentations in

prosthodontics, periodontology, and implant dentistry; and literature review seminars. Students will be prepared and encouraged to pursue the specialty certification of the American Board of Prosthodontics.

### **Advanced Education in General Dentistry**

The Department of Community Dentistry offers an accredited Advanced Education in General Dentistry (AEGD) residency program. The AEGD program is based in an eight-chair clinic at the North Miami Beach (NMB) campus with an optional second year devoted primarily to special needs dentistry at the main campus. The didactic portion of the program includes a core science curriculum designed to provide all postdoctoral students with an advanced interdisciplinary education and a detailed general practice curriculum for the AEGD students. Various off-site rotations are included to expand the range of experiences available. The program does not charge tuition and offers no stipends. Professional liability insurance is provided.

### **Master of Science in Dentistry**

The goal of the Master of Science in Dentistry Program is to provide advanced training in research and research methodology to students, primarily those enrolled in one of the College of Dental Medicine's postdoctoral programs. All master's degree candidates are required to complete a core curriculum of courses, emphasis track courses, and a research thesis. Research in this program includes various aspects of craniofacial/oral health and disease.

Graduates of this master's degree program will be trained to think critically, enabling them to more readily pursue research activities and academic careers. For postdoctoral students enrolled in the master's degree program, requirements for both postdoctoral program certification and the master of science in dentistry program will be fulfilled concomitantly. Those master's degree candidates who are not currently students enrolled in one of the college's postdoctoral programs will be required to meet the College of Dental Medicine's Office of Admissions criteria. It is anticipated that students who are accepted into the master's degree program will complete the program requirements within two to three years. Final decisions regarding a student's participation in this master's degree program are at the dean's discretion.

### **Anticipated Expenses**

Equipment costs for each program will be equal to or less than the average for all U.S. dental schools.

### **Requirements for Admission**

The College of Dental Medicine selects postdoctoral students based on application content, academic record, letters of recommendation, National Board Dental Examination scores (if taken), and personal interview.

Prior to matriculation, applicants must have completed a D.M.D., D.D.S., or an equivalent degree.

## Application Procedures

The applicant should mail the following materials by March 15, 2011:

1. the completed College of Dental Medicine application for postdoctoral students
2. a nonrefundable application fee of \$50
3. an official transcript from each college, professional school, or university attended. Coursework taken at foreign institutions must be evaluated for U.S. institution equivalence. This coursework must be evaluated by one of the services listed on this page.

Students should contact one of the following:

- World Education Services  
P.O. Box 745  
Old Chelsea Station  
New York, New York 10113-0745  
(212) 966-6311  
[www.wes.org](http://www.wes.org)
- Josef Silny & Associates  
7101 SW 102nd Avenue  
Miami, Florida 33173  
(305) 273-1616  
(305) 273-1338 fax  
[www.jsilny.com](http://www.jsilny.com)  
[info@jsilny.com](mailto:info@jsilny.com)
- Educational Credential Evaluators  
P.O. Box 514070  
Milwaukee, Wisconsin 53203-3470  
(414) 289-3400  
[www.ece.org](http://www.ece.org)

It is the applicant's responsibility to have this coursework evaluated, and an official evaluation must be provided.

4. The applicant must provide an official letter of graduation from the dean or designee of that institution, supporting the granting of the dental degree from that institution.

The applicant must arrange for the following to be sent to NSU.

1. official National Board scores (Please request the secretary of the National Board of Dental Examiners to forward all scores of the dental boards. The National Board is located at 211 East Chicago Avenue, Chicago, Illinois, 60611. Applicants who have not taken the National Boards must submit a letter of explanation.)
2. three letters of recommendation (They must be completed by dental school faculty members who are well acquainted with the applicant's abilities or by individuals who can provide information relevant to the applicant's potential.)

Upon receipt of the completed application and the required credentials, the director of each postdoctoral program along with the Committee on Admissions will select applicants for interview and those selected will be notified in writing. Not all applicants will be granted an interview. All applicants who are admitted to the college must be interviewed, but an invitation to appear for an interview should not be construed as evidence of acceptance.

All materials should be sent to

Nova Southeastern University  
Enrollment Processing Services (EPS)  
College of Dental Medicine  
Office of Admissions  
3301 College Avenue  
P.O. Box 299000  
Fort Lauderdale, Florida  
33329-9905

## Postdoctoral Tuition and Fees

- Tuition for all postdoctoral programs for 2010–2011 (subject to

change by the board of trustees without notice) is \$40,140. A Health Professions Division general access fee of \$145 is required each year. An NSU student services fee of \$750 is also required annually.

- Acceptance fee is \$500. This fee is required to reserve the accepted applicant's place in the entering first-year class. This advance payment will be deducted from the tuition payment due on registration day, but is not refundable in the event of a withdrawal. It is payable within two weeks of an applicant's acceptance.
- Deposit is \$500, due March 15, under the same terms as the acceptance fee.
- Preregistration fee is \$1,000, due May 15, under the same terms as the acceptance fee.

The first semester's tuition and fees, less the \$2,000 previously paid, are due on or before registration day. Tuition for each subsequent semester is due on or before the appropriate registration day. Students will not be admitted until their financial obligations have been met. It is extremely important that applicants be committed to meeting their financial responsibilities during their training. This should include tuition, living expenses, books, equipment, and miscellaneous expenses.

It is mandated that each student carry adequate personal medical and hospital insurance. Students may avail themselves of the hospitalization insurance plan obtainable through the university.



# Health Professions Division Faculty





# Health Professions Division Faculty

## Emeritus Faculty

### Reba L. Anderson

*Emeritus Professor,  
Occupational Therapy*  
B.S., Richmond Professional  
Institute, 1959  
M.A., University of Florida, 1970  
Ph.D., University of Florida, 1982  
Fellow, American Occupational  
Therapy Association

### Donald C. Bergmann

*Emeritus Professor, Pathology*  
B.S., Baldwin-Wallace College, 1942  
D.O., Kirksville College of Osteopathic  
Medicine, 1945  
Fellow, American College of Pathologists

### Clarence L. Brumback

*Emeritus Professor,  
Community Medicine*  
A.B., University of Kansas, 1936  
M.D., University of Kansas, 1943  
M.P.H., University of Michigan, 1948  
Fellow, American College  
of Preventive Medicine

### Raúl R. Cuadrado

*Dean Emeritus, College of  
Allied Health and Nursing  
Professor, Public Health*  
S.B., Yale University, 1961  
B.S., Yale University, 1961  
M.P.H., Yale University, 1963  
Dr.P.H., University of Michigan, 1968  
Ph.D., Honoris Causa in Health,  
Universidad Central del Este, 2000

### Maxwell Greenhouse

*Emeritus Professor, Osteopathic  
Principles and Practice*  
B.A., Webster University, 1939  
D.O., University of Osteopathic Medicine  
and Health Sciences, 1939  
M.S., Kansas University, 1943  
D.P.H., Kansas University, 1943

### William D. Hardigan

*Emeritus Dean, Pharmacy  
Professor, Pharmaceutical Sciences*  
B.S. (Pharm.), University  
of Wyoming, 1954  
M.S., University of Wyoming, 1959  
Ph.D., University of Arizona, 1973

### Stanley B. Kaye

*Emeritus Professor, Surgery*  
B.A., University of Arizona, 1949  
D.O., University of Health Sciences  
College of Osteopathic Medicine, 1954  
Fellow, American College of  
Osteopathic Surgeons

### Harold Kirsh

*Emeritus Professor, Surgery*  
D.O., Philadelphia College of  
Osteopathic Medicine, 1946  
Fellow, American Osteopathic  
College of Proctology

### Michael A. Longo

*Emeritus Professor, Surgery*  
B.S., St. John's University, 1942  
D.O., University of Health Sciences  
College of Osteopathic Medicine, 1946  
Fellow, American College  
of Osteopathic Surgeons

### Ferol Menks Ludwig

*Emeritus Professor, Occupational Therapy*  
B.S., Ohio State University, 1966  
M.S., Ohio State University, 1971  
Ph.D., University of  
Southern California, 1995  
Fellow, American Occupational  
Therapy Association

### Nancy Nashiro

*Emeritus Professor,  
Occupational Therapy*  
B.A., University of Hawaii, 1961  
B.S., University of Puget Sound, 1963  
M.Ed., University of Florida, 1968  
M.A., Southern Methodist  
University, 1982



Ph.D., Southern Methodist  
University, 1986  
Fellow, American Occupational  
Therapy Association

**Seymour Oliet**

*Emeritus Dean and Professor, Endodontics*  
D.D.S., University of Pennsylvania College  
of Dental Medicine, 1953  
CT— University of Pennsylvania, 1955  
Fellow, American  
Association of Endodontics  
Fellow, American College of Dentists  
Fellow, International College of Dentists  
Fellow, American Association  
of Advancement of Sciences  
Fellow, Royal Society of Health (British)  
Fellow, International  
Association Dental Research  
Fellow, Philadelphia College of Surgeons

**Robert L. Perraud**

*Emeritus Professor, Family Medicine*  
B.S., Kent State University, 1950  
D.O., Kirksville College of  
Osteopathic Medicine, 1954

**Charles B. Radlauer**

*Emeritus Professor, Surgery*  
*Adjunct Professor, Biomedical Informatics*  
M.D., George Washington University  
College of Medicine, 1961  
Fellow, American College of Surgeons

**Carol Niman Reed**

*Emeritus Professor,*  
*Occupational Therapy*  
B.S., University of Iowa, 1968  
M.S., University of Texas, 1977  
Ed.D., Nova Southeastern  
University, 1998  
Fellow, American Occupational  
Therapy Association

**Arthur Snyder**

*Emeritus Professor,*  
*Osteopathic Principles and Practice*  
D.O., Philadelphia College  
of Osteopathic Medicine, 1944

**Sigmund Stahl**

*Emeritus Associate Dean*  
*and Professor, Dental Medicine*  
D.D.S., University of Minnesota  
School of Dentistry, 1947  
M.S., University of Illinois, 1949  
Fellow, American Association  
for the Advancement of Science  
Fellow, American College of Dentists  
Fellow, American Academy of  
Periodontology

**Full-time Faculty**

**Stephen Abel**

*Associate Dean, Extramural Affairs*  
*Assistant Professor, Diagnostic Sciences*  
B.A., Harvard University, 1974  
D.D.S., New York University, 1978  
CT— Periodontology, M.S., University of  
Minnesota, 1982

**Renee B. Alexis**

*Associate Professor,*  
*Obstetrics and Gynecology*  
B.S., Jacksonville University, 1989  
M.D., University of Maryland  
School of Medicine, 1996  
M.P.H., Nova Southeastern University, 2008

**Winston L. Alexis**

*Assistant Professor,*  
*Obstetrics and Gynecology*  
B.S., Howard University, 1965  
M.D., Howard University College  
of Medicine, 1969

**Jamie Althoff**

*Assistant Professor, Optometry*  
B.S., Ferris State University, 2007  
O.D., Michigan College of Optometry, 2007

**Goar Alvarez**

*Director of Pharmacy Services,*  
*Assistant Professor, Sociobehavioral and*  
*Administrative Pharmacy*  
B.S., Florida A&M University, 1975  
Pharm.D., Nova Southeastern  
University, 1994

**Deborah Amster**

*Assistant Professor, Optometry*  
B.S., State University of New York, 1997  
O.D., New England College of  
Optometry, 2001  
Fellow, American Academy of Optometry  
Fellow, College of Optometrists in Vision  
Development

**Holly Anderson**

*Assistant Professor, Pharmacy Practice*  
A.A., University of South Florida, 1978  
B.S., University of Georgia, 1981  
Pharm.D., Nova Southeastern  
University, 1999

**Stephanie Anderson**

*Assistant Professor, Physician Assistant  
Studies*  
B.S., The Ohio State University, 1979  
M.D., Case Western Reserve University  
School of Medicine, 1983  
J.D., University of Miami School of Law,  
1999

**Paula L. Anderson-Worts**

*Associate Professor, Family Medicine*  
*Assistant Professor, Public Health*  
B.S., University of Miami, 1988  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1994  
M.P.H., Nova Southeastern  
University, 2001

**Phyllis Anderson-Wright**

*Instructor, Family Medicine*  
B.A., Rutgers College, 1976  
D.O., University of Medicine and Dentistry  
of New York, 1993

**Shane Angus**

*Assistant Professor, Health Science*  
B.A., University of California at  
Berkeley, 1997  
M.S., Case Western Reserve University,  
1999

**Rais A. Ansari**

*Assistant Professor, Pharmaceutical  
Sciences*  
B.S., Lucknow University—India, 1976  
M.S., Lucknow University—India, 1978

Ph.D., Kanpur University—India, 1985

**John Antonelli**

*Professor, Prosthodontics*  
D.D.S., New York University College of  
Dentistry, 1976  
Diplomate, American Board of Special  
Care Dentistry, 2004  
M.S., Nova Southeastern University, 2005

**Marlene Aramburu**

*Instructor, Geriatrics*  
B.S., Nova Southeastern University, 2001  
D.O., Nova Southeastern University, 2007

**Barbara Arcos**

*Assistant Professor, Family Medicine*  
B.S., University of Florida, 1980  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1994

**Graciela Armayor**

*Assistant Professor, Sociobehavioral and  
Administrative Pharmacy*  
Pharm.D., University of Florida, 1987  
M.S., Nova Southeastern University, 2006

**Cheryl G. Atherley-Todd**

*Assistant Professor, Family Medicine*  
B.S., McGill University, 1971  
M.D., University of the West Indies  
School of Medicine, 1976

**Barbara Austen**

*Assistant Professor, Physician Assistant  
Studies*  
B.S., University of Nebraska Medical  
Center, 1994  
M.S./M.P.A.S., University of Nebraska  
Medical Center, 1999

**Llaldo Austin**

*Assistant Professor, Anesthesiologist  
Assistant*  
B.S., University of Central Florida, 2004  
M.H.Sc., Nova Southeastern  
University, 2008

**Kalumi Ayala**

*Assistant Professor, Pharmacy Practice*  
Pharm.D., Nova Southeastern  
University, 2005

**Michael Bacigalupi**

*Assistant Dean, Student Affairs*  
*Assistant Professor, Optometry*  
B.S., University of Houston, 1991  
O.D., University of Houston, 1993  
M.S., Nova Southeastern University, 2007  
Fellow, American Academy of Optometry

**Annette Bade**

*Assistant Professor, Optometry*  
B.A., Emory University, 1987  
O.D., Southeastern University of the  
Health Sciences, 1993  
Fellow, American Academy of Optometry

**Camille Baldwin**

*Assistant Professor, Nursing*  
B.S., West Texas A&M University, 1996  
M.S., Florida Atlantic University, 2006

**Stephanie L. Ballard**

*Assistant Professor, Pharmacy Practice*  
Pharm.D., University of Florida, 2008

**Tye Ed Barber**

*Assistant Professor, Family Medicine*  
B.A., University of South Florida, 1987  
Ph.D., University of Florida, 1992  
D.O., Nova Southeastern University, 2006

**Curtis Barnes**

*Assistant Professor, Cariology and*  
*Restorative Dentistry*  
D.M.D., University of Florida, 1994

**Barbara Barrett**

*Assistant Professor, Nursing*  
B.B.A., City University of New York, 1981  
B.S.N., Barry University, 1992  
M.S.N., A.R.N.P., Florida International  
University, 2001

**Mary Bartuccio**

*Assistant Professor, Optometry*  
B.S., Nova Southeastern University, 1995  
O.D., Nova Southeastern University, 1997  
Fellow, American Academy of Optometry  
Fellow, College of Optometrists in Vision  
Development

**Harvey Beaver**

*Assistant Professor, Pediatric Dentistry*  
D.D.S., New York University, 1961  
Fellow, American Academy  
of Pediatric Dentistry

**Sandra Benavides**

*Assistant Professor, Pharmacy Practice*  
Pharm.D., University of California, 2000

**Randall C. Bennett**

*Clinical Director and Assistant Professor*  
*Physician Assistant Program—*  
*Jacksonville*  
B.A., University of South Alabama, 1972  
A.S. and P.A., Hinds Community College,  
University of Mississippi Medical  
Center, 1974  
M.P.A.S., University of Nebraska, 2010

**Eulogio Besada**

*Associate Professor, Optometry*  
B.S., University of Puerto Rico, 1979  
M.S., University of Houston, 1982  
O.D., University of Houston, 1989  
Fellow, American Academy of Optometry

**Anjali Bhasin**

*Assistant Professor, Internal Medicine*  
M.D., Baroda Medical College, 1995

**Hua Bi**

*Assistant Professor, Optometry*  
M.S., Peking University, 1998  
Ph.D., University of Houston, 2006  
O.D., University of Houston, 2006

**Glenn E. Bigsby III**

*Department Chair and Associate*  
*Professor, Physician Assistant Studies*  
B.S., Iowa State University, 1963  
D.O., Des Moines University's College of  
Osteopathic Medicine and Surgery, 1967  
Board Certified by American Osteopathic  
Board of Family Practice  
Qualifications in Geriatrics, American  
Osteopathic Board of Family Practice  
Fellow, American College of Osteopathic  
Family Physicians

**Gregory Black**

*Assistant Professor, Optometry*  
B.S., University of Southern Indiana, 1989  
O.D., Indiana University School of  
Optometry, 1996

**Mary Tischio Blackinton**

*Director, T-D.P.T. Program and  
Associate Professor*  
B.S./P.T., University of Maryland, 1983  
M.S., Nova University, 1991  
Ed.D., Nova Southeastern University, 2001  
Geriatric Clinical Specialist, APTA, 2009

**Cyril Blavo**

*Professor, Public Health  
Professor, Pediatrics*  
B.S., Abilene Christian University, 1979  
M.S., Abilene Christian University, 1980  
D.O., Texas College of Osteopathic  
Medicine, 1984  
M.P.H. and T.M., Tulane  
University School of Public Health  
and Tropical Medicine, 1988  
Fellow, American College of  
Osteopathic Pediatricians

**Charles Bleich**

*Assistant Professor, Cariology and  
Restorative Dentistry*  
D.D.S., University of Pennsylvania, 1960

**Ronald E. Block**

*Professor and Chair, Biochemistry*  
B.S., College of Charleston, 1963  
M.S., Clemson University, 1966  
Ph.D., Clemson University, 1969

**David R. Boesler**

*Associate Professor,  
Osteopathic Principles and Practice*  
B.A., LaSalle University, 1981  
M.S., Villanova University, 1983  
D.O., Des Moines University College of  
Osteopathic Medicine and Surgery, 1988

**Oscar R. Bolanos**

*Professor, Endodontics*  
M.S., University of Minnesota, 1976  
D.D.S., Temple University, 1981  
Certified by the American  
Board of Endodontics

**George S. Bowen**

*Professor, Preventive Medicine  
Professor, Public Health*  
B.A., University of California, 1964  
M.D., The Regents of the  
University of California, 1968  
M.P.H., University of California, 1971

**Paul Bradley**

*Professor, Diagnostic Sciences*  
B.D.S., University of Birmingham, 1959  
M.B., B.S., University of London, 1966  
M.D., University of London, 1989  
F.D.S.R.C.S. (Eng), Royal College  
of Surgeons of England, 1985  
F.D.S.R.C.S. (Edin), Royal College  
of Surgeons of Edinburgh, 1985  
F.D.S.R.C.S. (Edin), Royal College  
of Surgeons of Edinburgh, 1988

**Natasha Bray**

*Assistant Professor, Internal Medicine*  
B.S., University of Tulsa, 1999  
D.O., Oklahoma State University College  
of Osteopathic Medicine, 2003

**Sandra Brener**

*Assistant Professor, Pediatric Dentistry,  
Division of Developmental Sciences*  
D.D.S., University of Buenos Aires, 1994  
M.S., Pediatric Dentistry, University of  
Buenos Aires, 1997  
Certification, Pediatric Dentistry, Nova  
Southeastern University, 2008

**Abby Brodie**

*Associate Dean, Curriculum and  
Educational Affairs*  
*Associate Professor, Cariology and  
Restorative Dentistry*  
B.S., University of Massachusetts, 1979  
D.M.D., University of Pennsylvania, 1983  
Fellow, American College of  
Dentists, 2007  
Fellow, International College of  
Dentists, 2007

**Diana Bronstein**

*Assistant Professor, Periodontology,  
Division of Surgical Sciences*  
D.D.S., University of Saarland, 2000  
M.S., Temple University, 2007

Certificate in Periodontology, Temple University, 2007

**Dawn Brown-Cross**

*Associate Professor, Physical Therapy Director, Entry-Level D.P.T. Program*  
B.S., Kean College, 1983  
M.B.A., University of South Florida, 1996  
Ed.D., Nova Southeastern University, 2000

**Lynne E. Bryant**

*Assistant Professor, Nursing*  
M.S.N., University of Pennsylvania, 1979  
Ed.D., Florida International University, 1997

**James Burch**

*Professor, Orthodontics*  
D.D.S., Ohio State University, 1962  
M.S., Ohio State University, 1966  
CT—Ohio State University, 1966  
CT—Ohio State University, 1979

**T. Keith Burnham**

*Assistant Professor, Physician Assistant Program—Jacksonville*  
B.S.(Health Science), George Washington University, 1992  
B.S.(Physician Assistant), George Washington University, 1994  
M.P.A.S., University of Nebraska, 2000

**Donald E. Burris**

*Professor, Microbiology*  
B.S., Ohio University, 1976  
M.S., University of Pittsburgh, 1979  
Ph.D., Washington State University, 1986

**Josh Caballero**

*Assistant Professor, Pharmacy Practice*  
B.A., University of Florida, 1997  
Pharm.D., University of Tennessee—Memphis, 2001

**W. Grady Campbell**

*Assistant Professor, Biochemistry*  
B.S., Emory University, 1991  
M.S., University of Tennessee, 1995  
Ph.D., University of Florida Medical School, 1998

**Jennifer Canbek**

*Assistant Professor, Physical Therapy*  
B.S. PT, Maryville University—Saint Louis, 1998

**Manuel Carvajal**

*Chair and Professor, Sociobehavioral and Administrative Sciences*  
B.A., Florida Atlantic University, 1966  
M.S.A., University of Florida, 1969  
Ph.D., University of Florida, 1974

**Kay L. Case**

*Assistant Academic Director and Assistant Professor, Physician Assistant Studies*  
B.S., University of Wisconsin—River Falls, 1971  
B.S./P.A., University of Wisconsin—LaCrosse/Mayo School of Health-Related Science, 2000  
M.P.A.S., University of Nebraska Medical Center, 2010  
Fellow, American Academy of Physician Assistants  
Fellow, Florida Academy of Physician Assistants

**Ana Maria Castejon**  
*Associate Professor, Pharmaceutical Sciences*  
B.S.(Pharm), Central University of Venezuela, 1990  
Ph.D., Central University of Venezuela, 1997

**Rafael Castellon**

*Assistant Professor, Prosthodontics*  
D.D.S., University of Guadalajara, 1997  
M.S., University of Minnesota, 2002

**Ming-Shun Samuel Cheng**

*Associate Professor, Physical Therapy*  
B.S., National Taiwan University, 1993  
M.S. Massachusetts General Hospital Institute of Health Professions, 1999  
Sc.D., Boston University, 2004

**Rebecca M. Cherner**

*Assistant Professor, Family Medicine*  
B.S., University of Alabama, 1993

D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1997

**Nadine B. Chipon-Schoepp**  
*Assistant Professor, Family Medicine*  
B.S., Florida International University  
M.S., Nova Southeastern University  
D.O., Nova Southeastern University, 2007

**Jennifer Cittadino**  
*Assistant Professor, Nursing*  
R.N., St. Peter's School of Nursing, 1980  
M.S.N., Monmouth University, 2002

**Jodi Clark**  
*Assistant Professor, Health Science*  
B.S., University of Miami, 1992  
M.D., University of Miami, 1996  
M.P.H., Florida International University,  
2003

**Michelle Clark**  
*Chair and Associate Professor,  
Pharmaceutical Sciences*  
B.A., Florida Atlantic University, 1990  
M.S., University of South Florida, 1995  
Ph.D., University of South Florida, 1996

**Kevin Clauson**  
*Associate Professor, Pharmacy Practice*  
*Adjunct Associate Professor,  
Biomedical Informatics*  
Pharm.D., University of Tennessee, 1995

**Melissa J. Coffman**  
*Chair and Assistant Professor,  
Physician Assistant Department*  
B.S., Long Island University, 1997  
M.P.A., New York University, 2002  
Fellow, American Academy of  
Physician Assistants

**Peter M. Cohen**  
*Assistant Professor, Family Medicine*  
B.A., University of South Florida, 1981  
D.O., Southeastern University  
College of Osteopathic Medicine, 1993

**Stanley Cohen**  
*Professor, Humanities*  
B.S., Rutgers University, 1950

M.Ed., Temple University, 1955  
Ed.D., Temple University, 1965

**Joan Coke**  
*Assistant Professor, Nursing*  
R.N., University Hospital School of  
Nursing, 1975  
M.P.H., Florida International University,  
2001  
M.S.N./A.R.N.P. Adult, Florida  
International University, 2005

**Rose M. Colón**  
*Assistant Professor, Health Science*  
B.S. Psychology, University of  
Houston, 1992  
M.A. Psychology, University of  
Houston, 1995  
Ph.D., University of Houston, 1997

**Frances M. Colón Pratts**  
*Clinical Assistant Professor,  
Pharmacy Practice*  
Pharm.D., University of Puerto Rico, 2006

**Angela P. Combs**  
*Instructor, Dermatology*  
B.S., Nova Southeastern University, 2000  
D.O., Nova Southeastern University, 2006

**Luvencia Connor**  
*Assistant Professor, Nursing*  
B.S.N., University of the Virgin Islands, 1991  
M.S.N., University of Phoenix, 2001

**Gary Conover**  
*Director, College of Dental Medicine,  
Radiology*  
*Professor, Diagnostic Sciences*  
D.D.S., Temple University, 1966  
CT—Oral and Maxillofacial Radiology,  
Medical University of South Carolina, 1972  
Diplomate, American Board of Oral and  
Maxillofacial Radiology, 1981

**Gerald Conover**  
*Professor and Chair, Anatomy*  
B.S., University of Michigan, 1964  
M.S., University of Michigan, 1967  
Ph.D., University of Michigan, 1969

**Theresa Conte**

*Assistant Professor, Nursing*  
A.D.N./A.S., Miami Dade  
Community College, 1979  
B.S.N., Florida International  
University, 1996  
M.S.N., Florida Atlantic University, 1999

**Albert E. M. Coombs**

*Clinical Director and  
Assistant Professor*  
B.S., George Washington University, 1981  
B.S./P.A., George Washington University,  
1984  
M.A., Beaver College, 1992  
Fellow, American Academy of Physician  
Assistants  
Fellow, American Counseling Association

**Rachel Anastasia Coulter**

*Associate Professor, Optometry*  
B.A., Duke University, 1983  
O.D., Pennsylvania College  
of Optometry, 1991  
Fellow, American Academy of Optometry  
Fellow, College of Optometrists  
in Vision Development

**Melanie A. Crandall**

*Associate Professor, Optometry*  
B.S., Southern College of Optometry, 1977  
O.D., Southern College  
of Optometry, 1977  
M.B.A., Nova Southeastern  
University, 2000  
Fellow, American Academy of Optometry

**Luigi Cubeddu**

*Professor, Pharmaceutical Sciences*  
M.D., Central University  
of Venezuela, 1964  
Ph.D., University of Colorado, 1974

**Jolanta Czerwinska**

*Assistant Professor,  
Pharmaceutical Sciences*  
M.A., University of Gdansk, 1981  
M.A., Ball State University, 1984  
Ph.D., University of Gdansk, 1993

**Jackie Davie**

*Associate Professor, Audiology*  
B.S., The Pennsylvania State University,  
1994  
M.S., The Pennsylvania State University,  
1996  
Ph.D., The Pennsylvania State University,  
2005

**Kelley L. Davis**

*Associate Professor, Microbiology  
Associate Professor, Public Health*  
B.A., University of Kansas, 1997  
Ph.D., University of Missouri, 2003

**Margaret Davis**

*Assitant Director, Clinical Labs  
Assistant Professor, Nursing*  
B.S., Troy State University, 1982  
M.A., University of Phoenix, 1996  
M.S.N., University of Phoenix, 2002  
D.H.Sc., Nova Southeastern University,  
2008

**Paul Davis**

*Associate Professor, Audiology*  
B.A., Macquarie University, 1988  
M.S., Curtin University of Technology,  
1994  
Ph.D., Curtin University of Technology,  
1999

**Richard E. Davis**

*Dean, College of  
Allied Health and Nursing  
Professor, Physician Assistant Studies*  
B.S./P.A., University of Oklahoma, 1981  
M.S., Troy State University, 1984  
Ed.D., Nova Southeastern  
University, 2001  
Fellow, American Academy  
of Physician Assistants

**Hilda M. DeGaetano**

*Associate Professor, Pediatrics*  
B.S., New York Institute  
of Technology, 1988  
D.O., New York College of  
Osteopathic Medicine, 1992

**Joseph S. DeGaetano**

*Associate Professor, Family Medicine*  
B.A., New York Institute  
of Technology, 1988  
D.O., New York College of  
Osteopathic Medicine, 1992  
M.S., Nova Southeastern University, 2006

**Dominick P. DePaola**

*Associate Dean for Academic Affairs and  
Professor, Dental Medicine*  
D.D.S., New York University, 1969  
Ph.D., Massachusetts Institute of  
Technology, 1974

**Marcia Derby**

*Assistant Professor, Nursing*  
B.S.N., Florida Atlantic University, 2000  
M.S.N., University of Phoenix, 2005

**Teryl Ann Dever**

*Assistant Professor, Audiology*  
B.A., Wichita State University, 1999  
M.S., Lamar University, 2002  
Au.D., Pennsylvania School of Audiology,  
2006

**Linda DeZago**

*Assistant Professor, Nursing*  
B.S.N., Florida Atlantic University, 2001  
M.S., Florida Atlantic University, 2006

**Lisa M. Deziel-Evans**

*Executive Associate Dean,  
Professional Program  
Associate Professor, Pharmacy Practice*  
B.S. (Pharm.), Mercer University  
School of Pharmacy, 1983  
Pharm.D., Mercer University  
School of Pharmacy, 1984  
Ph.D., Nova Southeastern University, 2000  
Fellow, American Society of  
Health-System Pharmacists

**Morton A. Diamond**

*Medical Director and Professor,  
Physician Assistant Studies*  
A.B., Cornell University, 1959  
M.D., State University of New York, 1963  
Fellow, American College of Physicians  
Fellow, American College of Cardiology  
Fellow, American Heart Association

**Brenda Diaz**

*Assistant Professor, Physician Assistant  
Studies*  
B.S., City University of New York/Harlem  
Hospital PA Program, 1989  
M.S., A.T. Still University, 2009  
Fellow, American Academy of Physician  
Assistants  
Fellow, Florida Academy of Physician  
Assistants

**Patricia Dittman**

*Director and Assistant Professor,  
Nursing*  
B.S.N., Salve Regina University, 1981  
M.S.N., Florida Atlantic University, 1995  
Ph.D., Florida Atlantic University, 2007

**Jon H. Dodds**

*Associate Professor, Public Health*  
B.S., State University of New York, 1969  
M.Ed., Temple University, 1971  
Ph.D., Syracuse University, 1975  
M.P.H., University of Miami, 1991

**Rachelle Dorne**

*Associate Professor,  
Occupational Therapy*  
B.S., University of Wisconsin, 1975  
M.Ed., University of Washington, 1979  
Ed.D., Tennessee State University, 2004

**Lori B. Dribin**

*Assistant Dean for Student Affairs  
Professor, Anatomy*  
B.A., Northwestern University, 1972  
M.S., Northwestern University, 1973  
Ph.D., Northwestern University, 1975

**Eva Duchnowski**

*Instructor, Optometry*  
B.S., Fordham University, 2004  
O.D., Nova Southeastern University  
College of Optometry, 2008

**Sandee Dunbar**

*Chair and Professor, Occupational  
Therapy Department*  
B.S., Loma Linda University, 1982  
M.S., New York University, 1983



D.P.A., Nova Southeastern  
University, 2002  
Fellow, American Occupational Therapy  
Association

**Thomas Dwork**

*Assistant Professor, Prosthodontics,  
Division of Primary Care*  
D.M.D., Fairleigh Dickinson University,  
1987  
Certificate in Prosthodontics, Fairleigh  
Dickinson University, 1990

**Anthony J. Dyda, Jr.**

*Associate Professor, Program Director,  
M.H.Sc. Program*  
B.A., Point Park College, 1979  
B.S./P.A., United States Air Force/  
Oklahoma University, 1981  
M.P.A.S., University of Nebraska  
Medical Center, 1997  
D.H.Sc., Nova Southeastern  
University, 2006  
Distinguished Fellow, American Academy  
of Physician Assistants

**Martha S. Echols**

*Assistant Dean for Medical Education  
Assistant Professor, Internal Medicine*  
B.A., Cleveland State University, 1973  
M.Ed., Ashland University, 1991  
Ph.D., Ohio University, 1998

**Diane Ede-Nichols**

*Associate Professor and Section Chair,  
Community Dentistry, Division of  
Developmental Sciences*  
*Associate Professor, Public Health*  
D.M.D., Fairleigh Dickinson University  
College of Dental Medicine, 1987  
M.H.L., Nova Southeastern University, 2004

**Steven A. Ellen**

*Clinical Instructor, Department of  
Community Dentistry, Special Needs*  
D.D.S., NYU College of Dentistry, 1974

**Troy Elmstrom**

*Assistant Professor,  
Physician Assistant Department*  
B.S., Nova Southeastern University, 2000  
M.P.H., Nova Southeastern University, 2000

**Shara Elrod**

*Assistant Professor, Pharmacy Practice*  
B.S., Texas A&M University, 2002  
Pharm.D., University of Texas—Austin, 2008

**Alexandra Espejo**

*Assistant Professor, Optometry*  
Optometra, Universidad de la Salle,  
Colombia, 1992  
O.D., Pennsylvania College  
of Optometry, 1996  
Fellow, American Academy of Optometry

**Toni-Ann Faella**

*Assistant Professor, Vascular Sonography*  
B.H.Sc., Nova Southeastern University, 2006

**Rogério S. Faillace**

*Assistant Professor, Pediatrics*  
M.D., Fluminense Federal University, 1987  
B.S.N., Barry University, 1992

**Laura Falco**

*Assistant Professor, Optometry*  
B.S., State University of New York, 1995  
O.D., State University of New York, 1999  
Fellow, American Academy of Optometry

**Amir Farhangpour**

*Assistant Professor, Cariology and  
Restorative Dentistry*  
D.D.S., Creighton University, 1995

**Jennifer Fass**

*Clinical Assistant Professor,  
Pharmacy Practice*  
B.S., Nova Southeastern University, 2004  
Pharm.D., Nova Southeastern University,  
2006

**Tracy Favreau**

*Instructor, Internal Medicine*  
B.S., Nova Southeastern University, 1996  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 2001

**Greg Fecho**

*Assistant Professor, Optometry*  
B.A., Florida Atlantic University, 1995  
O.D., Nova Southeastern University, 2001  
Fellow, American Academy of Optometry

**Norman Feigenbaum**

*Associate Professor, Cariology and Restorative Dentistry*  
D.D.S., Temple University, 1965  
Fellow, American Academy of Cosmetic Dentistry

**Harvey A. Feldman**

*Professor, Physician Assistant Studies*  
B.A., University of Pennsylvania, 1963  
M.D., University of Pennsylvania, 1967  
Fellow American College of Physicians  
American Society of Nephrology.

**Maria I. Fernandez**

*Professor, Preventive Medicine*  
*Professor, Public Health*  
B.A., Florida International University, 1978  
M.A., Michigan State University, 1981  
Ph.D., Michigan State University, 1986

**Raymond G. Ferrero III**

*Assistant Professor, Family Medicine*  
*Assistant Professor, Public Health*  
B.A., Florida State University, 1991  
J.D., Nova Southeastern University, 1995

**Sergio Real Figueroa**

*Assistant Professor, Orthodontics*  
Dentistry, University of Catolica, Columbia, 1991  
Orthodontics, University of Catolica, Argentina, 1995

**Phyllis Filker**

*Associate Professor, Cariology and Restorative Dentistry*  
D.M.D., University of Florida, 1980

**Richard Finkel**

*Assistant Professor, Pharmaceutical Sciences*  
B.S. (Pharm.), University of Florida, 1956  
Pharm.D., Southeastern University College of Pharmacy, 1992

**C. Richard Finley**

*Associate Professor, Associate Department Chair, Physician Assistant Studies*

B.S.P.A., University of Oklahoma, 1982  
M.P.A.S., University of Nebraska, 1998  
Ed.D. Nova Southeastern University, 2006  
Distinguished Fellow, American Academy of Physician Assistants  
Fellow, Florida Academy of Physician Assistants

**Jay M. Fleisher**

*Associate Professor, Public Health*  
B.S., Richmond College, 1974  
M.S. College of Staten Island, 1977  
M.S., Columbia University, 1990  
Ph.D., New York Institute of Environmental Medicine, 1994

**Paul Fleisher**

*Assistant Professor, Cariology and Restorative Dentistry*  
D.D.S., Northwestern University, 1965

**Cynthia Fletcher**

*Assistant Professor, Nursing*  
B.S.N., Long Island University, 1977  
M.S.N., Hunter College, 1980  
Ph.D., University of Miami, 1996

**Rosebud Foster**

*Professor, Family Medicine, Public Health, and Biomedical Informatics*  
B.S.N., Meharry Medical College, 1956  
M.S.N., Wayne State University, 1960  
Ed.D., University of Miami, 1976

**Joan Frater-Clarke**

*Assistant Professor, Nursing*  
M.P.H., Florida International University, 2000  
M.S.N./A.R.N.P., Florida International University, 2005

**Barry Frauens**

*Associate Professor, Optometry*  
B.S., Wilkes College, 1985  
O.D., Nova Southeastern University, 1996  
Fellow, American Academy of Optometry

**Erica Freidland**

*Chair and Associate Professor, Audiology*

B.S., University of Florida, 1990  
M.S., Vanderbilt University, 1992  
Au.D., Nova Southeastern  
University, 2001

**Elizabeth Frenzel-Shepherd**  
*Director, Experiential Education*  
*Assistant Professor, Pharmacy Practice*  
B.S. (Pharm.), Long Island  
University 1980  
M.B.A., Florida International  
University, 1987

**Linda Fritzinger-Hearn**  
*Assistant Professor, Nursing*  
B.S.N., Nova Southeastern University,  
2006  
M.S.N., Nova Southeastern University,  
2009

**Mark Gabay**  
*Assistant Professor, Pediatrics*  
B.S., University of Arizona, 1999  
D.O., Nova Southeastern University, 2005

**Patricia A. Gaffney**  
*Assistant Professor, Audiology*  
B.A., The George Washington University,  
2001  
M.S., University of Pittsburgh, 2003  
Au.D., University of Pittsburgh, 2005

**Rashondia E. Gaines**  
*Assistant Professor, Cariology and*  
*Restorative Dentistry*  
*Director of Faculty Practice*  
B.A., Hampton University, 1994  
D.D.S., Virginia Commonwealth  
University/Medical College of Virginia  
School of Dentistry, 1998  
CT—AEGD, University of Missouri—  
Kansas City School of Dentistry, 1999

**Sandrine Gaillard-Kenney**  
*Associate Professor and Chair,*  
*Department of Health Science*  
B.A., Université de la  
Sorbonne Nouvelle, 1995  
M.A., Université de la  
Sorbonne Nouvelle, 1997

M.A., Université de la  
Sorbonne Nouvelle, 1998  
Ed.D., Nova Southeastern University, 2007

**Clark D. Galin**  
*Executive Liaison, Implant Dentistry*  
*Executive Director, Continuing*  
*Education*  
*Associate Professor, Periodontology*  
D.D.S., Indiana University  
School of Dentistry, 1972  
CT—University of Illinois, 1974  
Fellow, American College of Dentists

**Audrey Galka**  
*Chair and Associate Professor, Cariology*  
*and Restorative Dentistry*  
D.D.S., New York University, 1980

**Colpan K. Galperin**  
*Assistant Professor, Cariology and*  
*Restorative Dentistry*  
D.D.S., University of Istanbul, 1960  
CT, New York University, 1964

**Samuel Galperin**  
*Assistant Professor, Periodontology*  
D.D.S., Universidad Nacional  
de Colombia, 1958  
CT—New York University, 1964  
Fellow, Dental Staff in  
Clinical Pedodontia

**Alice Gandell**  
*Clinical Instructor,*  
*Occupational Therapy*  
B.S., University of Illinois, 1965  
M.S.M.F.P., Nova Southeastern  
University, 1998

**Nathalie Garbani**  
*Program Director and Assistant Professor,*  
*Vascular Sonography*  
B.S., Emmanuel College, 1990  
M.S., University of  
Massachusetts—Lowell, 2001

**Angela Garcia**  
*Assistant Professor, Pharmacy Practice*  
B.A., University of Kansas, 1999  
Pharm.D., Nova Southeastern University,  
2008

**Timothy P. Gauthier**

Assistant Professor, *Pharmacy Practice*  
Pharm.D., Northeastern University, 2008

**David M. Gazze**

Clinical Assistant Professor,  
*Pharmaceutical Sciences*  
B.S., University of Pittsburgh, 1980  
Ph.D., University of Pittsburgh, 1987

**Richard Gelman**

Assistant Professor, *Endodontics*  
D.M.D., University of Pittsburgh, 1971  
CT—Endodontics, Medical College of  
Virginia, 1979

**Deborah A. Gerbert**

Program Director, Department Chair,  
and Assistant Professor, *Physician*  
Assistant Program—*Jacksonville*  
B.S., Emory University, 1976  
B.S., University of Oklahoma, 1980  
M.S., University of North Florida, 1987

**Donna M. Gibson**

Assistant Professor, *Nursing*  
M.S.N., Nova Southeastern University, 2008

**William A. Gibson**

Professor and Chair, *Pathology*  
B.A., Ohio State University, 1951  
M.A., Ohio State University, 1952  
D.D.S., Ohio State University, 1956  
M.D.S., Tufts University, 1961  
Ph.D., Georgetown University, 1975

**Michael Giese**

Associate Professor, *Optometry*  
B.S., North Dakota State University, 1983  
O.D., Illinois College of Optometry, 1985  
Ph.D., UCLA School of Medicine, 1998  
Fellow, American Academy of Optometry

**Nadine Girgis**

Assistant Professor of *Optometry*  
B.A., Washington University of St. Louis,  
1999  
O.D., Indiana University, 2003  
Fellow, American Academy of Optometry

**Mark L. Glover**

Director, *Palm Beach Pharmacy Program*  
Associate Professor, *Pharmacy Practice*  
B.S., North Carolina State University, 1985  
B.S., University of North Carolina, 1988  
Pharm.D., University of North Carolina, 1994

**Antonio Godoy**

Assistant Professor, *Prosthodontics*,  
*Division of Primary Care*  
D.D.S., Universidad de Carabobo, 1979  
M.S., University of Maryland, 1984  
Certificate, Maxillofacial Prosthodontics,  
University of Texas, 1990

**Kelly Goebel**

Assistant Professor, *Nursing*  
B.S.N., St. Joseph's College of Nursing,  
1991  
M.S.N., Loyola University of Chicago,  
2003  
D.N.P., University of South Florida, 2010

**Marvin J. Golberg**

Assistant Professor, *Prosthodontics*  
D.D.S., University of Maryland, 1956

**Abraham Lifshitz Goldberg**

Professor, *Orthodontics*  
D.D.S., University of Mexico, 1981  
M.S. Orthodontics, University of Iowa, 1982

**Tulia Gonzalez**

Instructor, *Cariology and Restorative*  
*Dentistry*  
D.M.D., University Colegio  
Odontologico Colombiano, 1987

**Harvey Gordon**

Assistant Professor, *Cariology and*  
*Restorative Dentistry*  
D.D.S., George Town School of Dentistry,  
1968

**Laurel A. Gorman**

Associate Professor, *Pharmacology*  
B.S., University of Florida, 1986  
Ph.D., Louisiana State Medical School, 1994

**N. Scott Gorman**

Professor, *Optometry*

O.D., Southern College of Optometry, 1973  
M.S., Nova Southeastern University, 1994  
Ed.D., Nova Southeastern University, 2003  
Fellow, American Academy of Optometry

**Anton Gotlieb**

*Associate Professor, Prosthodontics*  
B.A., Syracuse University, 1969  
D.D.S., Temple University School of Dentistry, 1973  
M.S., Nova Southeastern University, 2005  
Fellow, International College of Dentists, 2002  
Fellow, American College of Dentists, 2006

**A. Alvin Greber**

*Professor, Internal Medicine*  
B.A., University of Pennsylvania, 1954  
D.O., Philadelphia College of Osteopathic Medicine, 1958  
Fellow, American College of Osteopathic Internists

**Paul Greenman**

*Assistant Professor, Anatomy*  
D.P.M., Pennsylvania College of Podiatric Medicine, 1992

**Edye Elizabeth Groseclose**

*Professor, Biochemistry*  
*Assistant Professor, Public Health*  
B.S., University of Miami, 1965  
Ph.D., University of Miami School of Medicine, 1978

**Robert C. Grosz**

*Professor, Physician Assistant Studies*  
*Professor, Public Health*  
B.A., Adelphi University, 1964  
M.S., Adelphi University, 1966  
Ed.D., Nova University, 1974

**Tatwig Guirguis**

*Assistant Professor, Internal Medicine*  
M.D., University of Alexandria Faculty of Medicine, 1974

**Steven Haas**

*Assistant Professor, Prosthodontics,*  
*Division of Primary Care*  
D.M.D., University of Pennsylvania, 1983

Certificate, Advanced Graduated Studies in Prosthodontics, Boston University School of Graduate Dentistry, 1986  
J.D., Touro College Law Center, 1996

**Jose F. Haber**

*Instructor, Preventive Medicine*  
M.D., Instituto Superior De Ciencias Medicas, 1993

**Howard S. Hada**

*Assistant Dean for Academic Affairs*  
*Professor and Chair, Microbiology*  
B.A., University of Texas, 1974  
M.S., University of Texas, 1977  
Ph.D., University of Houston, 1981

**Teri Hamill**

*Professor, Audiology*  
B.A., University of Central Florida, 1982  
M.S., Florida State University, 1983  
Ph.D., Florida State University, 1986

**Janet K. Hamstra**

*Assistant Professor, Internal Medicine*  
B.A., Calvin College, 1980  
M.S., California State University, 1987  
Ed.D., University of California, 1996

**Jorge Han**

*Assistant Professor, Vascular Sonography*  
M.D., University Cayetano Heredia, Lima, Peru, 1987

**Jung Sun Han**

*Assistant Professor, Periodontology,*  
*Division of Surgical Sciences*  
D.D.S., Yonsei University, South Korea, 2002  
M.S.D., Indiana University, 2007

**Delia Harper-Celestine**

*Assistant Professor, Public Health*  
B.S., Brooklyn College City University of New York, 1991  
M.P.H., New York University School of Education, 1997

**Patrick Hardigan**

*Associate Professor, Public Health*  
B.S., Ferris State College, 1987

M.B.A., University of Wyoming, 1991  
Ph.D., University of Wyoming, 1996

**Harold Haering**

*Assistant Professor, Cariology and Restorative Dentistry, Division of Primary Care*

D.M.D., University of Kentucky, 1981

**Catherine Harrington**

*Associate Professor of Sociobehavioral and Administrative Pharmacy*

B.S., Wayne State University, 1977

Pharm.D., University of Michigan, 1987

Ph.D., University of Michigan, 1993

**Betty-Jean Harris**

*Assistant Dean, Experiential Education and Student Services*

B.Sc., Philadelphia College of Pharmacy and Science, 1975

Pharm.D., Nova Southeastern University College of Pharmacy, 1994

**Nancy Borja Hart**

*Assistant Professor, Pharmacy Practice*

A.A., University of Florida, 2001

Pharm.D., University of Florida, 2005

**Robert T. Hasty**

*Assistant Professor, Internal Medicine*

B.S., University of Miami, 1996

D.O., Nova Southeastern University College of Osteopathic Medicine, 2000

**Lisa A. Heintskill**

*Instructor/Program Coordinator, Periodontology, Division of Surgical Sciences*

M.S., Health Science, Nova Southeastern University, 2007

**Madeleine A. Hellman**

*Director and Associate Professor, Ph.D. Program*

*Chair, Physical Therapy Department*

B.S.P.T., Florida International University, 1980

M.H.M., St. Thomas University, 1990

Ed.D., Nova Southeastern University, 2001

**Rhonda R. Hendricks**

*Assistant Professor, Nursing*

B.A., Indiana University, 1993

R.N., A.S., Edison Community College, 1999

M.S.N., Nova Southeastern University, 2008

**Maria A. Hernandez**

*Postdoctoral Associate Program Director and Assistant Professor, Periodontology*

D.D.S., University of Carabobo, Valencia-Venezuela, 1998

CT—Periodontics, University of Pennsylvania, School of Medicine, 2003

Implant Fellowship, University of Pennsylvania, School of Medicine, 2004

**Jorge Hervas**

*Assistant Professor, Prosthodontics*

D.D.S., Central University of Ecuador

**Cheryl J. Hill**

*Professor, Physical Therapy*

B.S./P.T., Medical College of Virginia, 1973

M.S., Nova Southeastern University, 1979

Ph.D., Nova Southeastern University, 2001

**Gary R. Hill**

*Assistant Professor, Internal Medicine*

A.A., Brookdale Community College, 1971

B.S., Glassboro State College, 1973

D.O., Philadelphia College of Osteopathic Medicine, 1984

**Kimberly Hogan**

*Assistant Professor, Nursing*

B.S.N., University of South Alabama, 1995

M.S.N., University of South Alabama, 2000

**Maritzabel Hogge**

*Assistant Professor, Oral and Maxillofacial Radiology, Diagnostic Sciences, Division of Primary Care*

D.D.S., Pontificia Universidad Javeriana (Colombia), 1998

M.S., University of North Carolina, 2008

**Lauren Hojdilla**

*Assistant Professor, Anesthesiologist  
Assistant*

B.A., Case Western Reserve University,  
2001

M.S., Case Western Reserve University,  
2003

**Theodore L. Hollar**

*Assistant Professor, Public Health*

B.A., Erskine College, 2000

Ph.D., Florida Atlantic University, 2008

**Peter Holub**

*Assistant Professor, Health Science*

B.A., University of  
California—Berkeley, 1979

B.S., California College of  
Podiatric Medicine, 1982

D.P.M., California College of  
Podiatric Medicine, 1984

M.S., Pennsylvania State University, 2002

**James T. Howell**

*Professor, Rural Medicine  
Professor, Public Health*

B.S., St. John's University, 1962

M.D., New York Medical College, 1966

M.P.H., Harvard University  
School of Public Health, 1972

**Myron Howell**

*Associate Professor, Family Medicine*

B.S. (Pharm.), Philadelphia College  
of Pharmacy and Science, 1959

D.O., Philadelphia College of Osteopathic  
Medicine, 1963

**Chiu-jen Hsu**

*Assistant Professor, Prosthodontics*

B.D.S., China Medical College, Taichung,  
Taiwan, 1988

D.D.S., New York University, 1992

CT—AEGD, Lutheran Medical Center,  
1993

CT—Postgraduate Prosthodontics  
Program, Columbia University, 1995

CT—Maxillofacial Prosthodontics  
Fellowship, Bronx VA Medical College,  
1996

**Charles Huang**

*Assistant Professor, Pediatric Dentistry*  
Ph.D., Columbia University, 2001

**Yasmin Hussain-Qureshi**

*Assistant Professor, Osteopathic  
Principles and Practice*

B.S., Victoria University, 2000

M.S., Victoria University, 2002

M.P.T., Florida International University,  
2006

D.P.T., A.T. Still University of Health  
Sciences, 2009

**Max Ito**

*Director and Associate Professor,  
Occupational Therapy Ph.D. Program*

B.S., University of Oklahoma, 1978

M.S., Kansas State University, 1981

Ph.D., University of Texas at Austin, 1994

**Robin J. Jacobs**

*Assistant Professor, Preventive Medicine,  
Psychiatry, and Public Health*

B.S., University of New Mexico, 1991

M.S.W., San Diego State University, 1997

Ph.D., Florida International University,  
2006

**Lawrence E. Jacobson**

*Professor, Neurology*

B.S., Ursinus College, 1953

D.O., Chicago College of  
Osteopathic Medicine, 1962

**Robert Jacobson**

*Assistant Professor, Cariology and  
Restorative Dentistry*

D.D.S., University of Pennsylvania, 1960

**Victor A. Jaffe**

*Assistant Professor, Family Medicine*

B.S., Nova Southeastern University

D.O., Nova Southeastern University, 2006

**Pamela B. Jaffey**

*Associate Professor,  
Physician Assistant Studies*

A.B., Columbia University, 1981

M.D., New York Medical College, 1986

Fellow, American Society  
of Clinical Pathologists

**Andrea Janoff**

*Assistant Professor, Optometry*  
O.D., New England College  
of Optometry, 1986  
Fellow, American Academy of Optometry

**Bai-Chuan Jiang**

*Professor, Optometry*  
B.S., Fuan University, 1966  
M.S., Shanghai Institute  
of Physiology, 1982  
Ph.D., Shanghai Institute  
of Physiology, 1986  
Fellow, American Academy of Optometry

**Diane John**

*Director and Assistant Professor, Nursing*  
B.S.N., Florida Atlantic University, 2001  
M.S.N., Florida Atlantic University, 2003

**Kenneth E. Johnson**

*Associate Professor,  
Obstetrics/Gynecology*  
*Associate Professor, Public Health*  
B.S., Florida State University, 1981  
D.O., Southeastern University  
College of Osteopathic Medicine, 1991

**Broderick Jones**

*Associate Professor, Pathology*  
B.S., Tuskegee University, 1979  
M.S., Tuskegee University, 1982  
M.D., University of Miami, 1992

**Aline Joubert**

*Assistant Professor, Nursing*  
M.S.N., Florida International University,  
2006

**Alan G. Kabat**

*Professor, Optometry*  
B.A., Rutgers University, 1986  
B.S., Pennsylvania  
College of Optometry, 1987  
O.D., Pennsylvania College  
of Optometry, 1990  
Fellow, American Academy of Optometry

**Steven Kaltman**

*Section Chair and Professor,  
Oral and Maxillofacial Surgery, Division  
of Surgical Sciences*  
D.M.D., University of Pittsburgh, 1973  
M.D., University of Health Sciences,  
Antigua, 2000

**Umadevi Kandalam**

*Assistant Professor, Research*  
Ph.D., Andhra University, , 1996  
M.S., Annamalai University, India, 1988

**Taeheon Kang**

*Assistant Professor, Periodontics*  
D.D.S., College of Dentistry, Seoul  
National University Korea, 1993  
M.S., Seoul National University Korea,  
2000  
Certificate of Periodontics, University of  
Pennsylvania, 2003

**Pamela Kasyan-Itzkowitz**

*Assistant Professor and Academic  
Fieldwork Coordinator,  
Occupational Therapy*  
B.A., University of Florida, 1993  
M.S., Florida International  
University, 1997

**Julie B. Keena**

*Department Chair and Associate Professor,  
Physician Assistant Studies*  
B.A., Agnes Scott College, 1985  
M.M.Sc./P.A., Emory University, 1987  
Fellow, American Academy  
of Physician Assistants  
Fellow, Florida Academy of Physician  
Assistants

**Peter Keller**

*Executive Associate Dean  
for Academic and Clinical Resources*  
*Associate Professor, Cariology and  
Restorative Dentistry*  
D.D.S., New York University  
College of Dentistry, 1967  
Fellow, International College of Dentists  
Fellow, American College of Dentists,  
1998



**Patricia E. Kelly**

*Professor, Health Science  
Director, Doctor of Health Science  
Program*

B.A., State University of  
New York—Binghamton, 1973

P.A., Stanford University  
Medical Center, 1980

M.H.S., University of California, 1982

Ed.D., Nova Southeastern  
University, 2000

**Steven Kelner**

*Associate Dean of Institutional Affairs  
Professor, Endodontics*

D.M.D., University of  
Pennsylvania, 1979

CT—Endodontics, University  
of Pennsylvania, 1986

M.S. Marketing, Roosevelt  
University, 1996

**Brianna Kent**

*Assistant Professor, Health Science*

B.S.N., University of St. Thomas, 1979

M.S., University of Houston, 1984

Ph.D., Nova Southeastern University, 2006

**Nile Khanfar**

*Assistant Professor, Sociobehavioral and  
Administrative Pharmacy*

B.S., Northwestern State University, 1987

M.B.A., University of Louisiana, 2001

Ph.D., University of Louisiana, 2005

**Shiva Khatami**

*Assistant Professor, Orthodontics,  
Division of Developmental Science*

D.D.S., Shahid Beheshti University of  
Medical Science, 2001

Certificate in Orthodontics and  
Dentofacial Orthopedics, University of  
Rochester, 2009

Ph.D., University of British Columbia,  
CN, 2010

**Evren Kilinc**

*Assistant Professor, Cariology and  
Restorative Dentistry*

D.D.S., Ege University, 1998

Ph.D., Ege University, 2006

**David King**

*Assistant Professor,  
Physician Assistant Studies*

Ph.D., University of South Florida, 2000

**Jodi Kodish-Stav**

*Director, Informatics*

*Assistant Professor, Cariology and  
Restorative Dentistry*

D.D.S., Emory University, 1982

Fellow, Academy of General Dentistry

**Frederick Kohler**

*Professor, Prosthodontics*

D.D.S., Temple University  
School of Dentistry, 1957

Fellow, International College of Dentistry

**Morey J. Kolber**

*Assistant Professor, Physical Therapy*

B.H.S., University of Miami, 1993

M.S.P.T., University of Miami, 1995

Ph.D., Nova Southeastern University, 2007

**Barbara L. Kornblau**

*Professor, Occupational Therapy*

B.S., University of Wisconsin, 1977

J.D., University of Miami  
School of Law, 1984

Fellow, American Occupational  
Therapy Association

**David Kotun**

*Administrative Director of Clinical  
Education, Physician Assistant Studies*

B.S., Oklahoma University, 1985

M.S., University of Nebraska, 1998

Fellow, American Academy of Physician  
Assistants

Fellow, Florida Academy of Physician  
Assistants

Fellow, Society of Air Force Physician  
Assistants

Fellow, American College of Clinicians

**Lawrence Krasne**

*Associate Professor, Prosthodontics*

D.D.S., St. Louis University, 1954

Fellow, International College of Dentistry

Fellow, Royal Society of Health

**Yellela Sri Rama Krishnaiah**

*Associate Professor,  
Pharmaceutical Sciences*  
B.Pharm., Andhra University, 1981  
M.Pharm., Andhra University, 1984  
Ph.D. Andhra University, 1993

**Jan E. Kronmiller**

*Division Chief, Division of Developmental  
Sciences, Section Chair and Professor,  
Orthodontics*  
B.S., Ohio State University, 1978  
D.D.S., Ohio State University, 1978  
CT—Pediatric Dentistry, Oregon Health  
and Science University, 1980  
CT—Orthodontics, University of  
Connecticut, 1991  
Ph.D., University of Connecticut, 1991  
Fellow, American College of Dentists, 1995  
Fellow, International College of  
Dentists, 1996

**Simha Kukunooru**

*Assistant Professor, Periodontology,  
Division of Surgical Sciences*  
D.D.S., Rajiv Gandhi University, India, 2002  
M.S., University of Alabama, 2010  
Certificate in Periodontology, University of  
Alabama, 2010

**Andrew M. Kusienski**

*Assistant Professor, Sports Medicine*  
B.S., St. Joseph University, 1996  
D.O., Lake Erie College of Osteopathic  
School of Medicine, 2001

**Sergio Kuttler**

*Associate Dean for Advanced  
Education Programs*  
*Associate Professor, Endodontics*  
D.D.S., Universidad Tecnologica  
de Mexico, D.F., 1978  
CT—Endodontics, University of Southern  
California, 1984  
Fellow, International College of Dentists

**Francisco Laboy III**

*Instructor, Sports Medicine*  
B.S., City College of New York, 1995  
D.O., Philadelphia College of Osteopathic  
Medicine, 2007

**Carlos Ladeira**

*Associate Professor, Physical Therapy*  
B.S. PT, Universidade Federal  
de Minas Gerais, 1987  
M.S. PT, University of Alberta, 1991  
Ed.D., Nova Southeastern University, 2007  
Fellow, American Association of  
Orthopedic Manual Physical Therapists

**L. Leanne Lai**

*Director of International Programs*  
*Professor, Sociobehavioral  
and Administrative Pharmacy*  
B.S. (Pharm.), Kaohsiung Medical College,  
Taiwan, 1990  
Ph.D., University of Maryland, 1996

**Lorilee Landgraf**

*Academic Director and Assistant  
Professor, Physician Assistant Studies*  
B.S., University of Nebraska Medical  
Center, 1992  
M.P.A.S., University of Nebraska Medical  
Center, 1997  
M.Ed., University of West Florida, 2004

**Heidi Anderson Lane**

*Assistant Professor, Internal Medicine*  
B.S., East Carolina University, 1976  
M.Ed., East Carolina University, 1980  
Ed.D., East Carolina University, 2005

**Elaine D. Lara**

*Assistant Professor, Prosthodontics*  
D.M.D. equivalent degree, Odontologo,  
Universidad Central de Venezuela, 1999  
CT—Prosthodontics, Nova Southeastern  
University, 2003

**Jose Larumbe**

*Assistant Professor and Director,  
Pediatric Dentistry*  
D.D.S., Universidad Tecnologica  
de Mexico, D.F., 1975  
CT—Pediatric Dentistry, University of  
Boston, 1979

**Cynthia Last**

*Professor, Behavioral Science*  
Ph.D., State University of  
New York at Albany, 1982

**Tom Laster**

*Associate Professor, Occupational  
Therapy Department*

B.A., Indiana University, 1975

B.S., Indiana University, 1978

M.S., Indiana University, 1978

**Harold E. Laubach**

*Dean, College of Medical Sciences*

*Professor, Microbiology*

*Professor, Public Health*

B.S., Southwestern Oklahoma

State University, 1968

M.S., Oklahoma State University, 1975

Ph.D., Oklahoma State University, 1977

**Adrienne Lauer**

*Assistant Professor, Occupational  
Therapy*

B.S., Thomas Jefferson University, 1988

M.S., Barry University, 1995

Ed.D., Nova Southeastern University, 2001

**Janet L. Leasher**

*Associate Professor, Optometry*

*Associate Professor,  
Public Health*

*Director of Community Outreach,  
Optometry*

*UNESCO Chair, Visual Health  
and Development*

B.S., Pacific University, 1983

O.D., Pacific University, 1986

M.P.H., Tulane University, 1999

Fellow, American Academy of Optometry

**Susan Ledbetter**

*Associate Professor, Family Medicine*

B.A., University of Florida, 1992

D.O., Philadelphia College of

Osteopathic Medicine, 1999

**Roni Cohen Leiderman**

*Affiliated Professor,*

*Child Development Specialist*

*Clinical Professor, Pediatrics*

B.S., Boston University, 1972

M.S., Lesley College, 1974

Ph.D., Nova University, 1986

**Sean Leonard**

*Assistant Professor/Psychometrician,  
Sociobehavioral and  
Administrative Pharmacy*

B.A., Miami University, 1993

M.S., Nova Southeastern University, 1995

Ph.D., Nova Southeastern University, 2001

**Lawrence Levin**

*Assistant Professor, Cariology and  
Restorative Dentistry*

D.D.S., Fairleigh Dickinson University, 1965

**Philip Levine**

*Assistant Professor, Forensic Odontology,  
Diagnostic Sciences,  
Division of Primary Care*

M.A., George Peabody College, 1957

D.D.S., University of Tennessee, 1962

M.S., Troy State University, 1995

**Leonard A. Levy**

*Professor, Family Medicine*

*Professor, Biomedical Informatics*

*Professor, Public Health*

B.A., New York University, 1956

D.P.M., New York College of

Podiatric Medicine, 1961

M.P.H., Columbia University

School of Public Health, 1967

**Charles Lewis**

*Assistant Professor, Health Science*

B.A., Newberry College, 1969

P.A., Duke University, 1971

M.P.H., University of South Carolina

School of Public Health, 1982

D.H.Sc., Nova Southeastern

University, 2009

**Randy Lichtman**

*Instructor, Prosthodontics,*

*Division of Primary Care*

D.D.S., Northwestern University, 1984

**Fred Lippman**

*Chancellor, Health Professions Division*

*Professor, Community Medicine*

*Professor, Public Health*

B.S. (Pharm.), Columbia University

College of Pharmacy, 1958

Ed.D., Nova Southeastern University, 2003

**Hal Lippman**

*Associate Dean, Admissions and Student Affairs*  
*Assistant Professor, Prosthodontics*  
D.D.S., University of New York, 1975

**Bini Litwin**

*Associate Professor, Physical Therapy*  
*Assistant Director, T-D.P.T. Program*  
B.S./P.T., State University of New York, 1966  
M.B.A., Barry University, 1990  
Ph.D., Nova Southeastern University, 2005

**John E. Long**

*Medical Director and Assistant Professor, Physician Assistant Program—Jacksonville*  
M.D., George Washington University, 1987  
Diplomate, American Board of Emergency Medicine, 1995  
Fellow, American College of Emergency Physicians  
Fellow, American Academy of Emergency Medicine

**Eustorgio A. Lopez**

*Associate Professor, Program Director, Oral and Maxillofacial Surgery*  
D.D.S., University of Sao Paulo, Brazil, 1977  
M.D., University of Miami, 1995  
OMFS Certificate, Jackson Memorial Hospital/University of Miami, 1990

**David S. Loshin**

*Dean, College of Optometry*  
*Professor, Optometry*  
B.S., Rochester Institute of Technology, 1971  
M.S., Ohio State University, 1974  
O.D., Ohio State University, 1975  
Ph.D., Ohio State University, 1977  
Fellow, American Academy of Optometry

**Jennie Q. Lou**

*Professor, Internal Medicine*  
*Professor, Biomedical Informatics*  
*Professor, Public Health*  
B.H.Sc., McMaster University, 1984  
M.D., Shanghai Medical University, 1987  
M.Sc., McMaster University, 1992

**Ferol Ludwig**

*Professor, Occupational Therapy*  
B.S., Ohio State University, 1966  
M.S., Ohio State University, 1971  
Ph.D., University of Southern California, 1995  
Fellow, American Occupational Therapy Association

**Nicholas Lutfi**

*Associate Professor, Anatomy*  
B.S., Central University of Venezuela, 1981  
M.S., Barry University, 1996  
D.P.M., Barry University, 1997

**Anastasio Tassos Lympelopoulos**

*Assistant Professor, Pharmaceutical Sciences*  
B.S., University of Patras, 1998  
M.S., University of Patras, 2000  
Ph.D., University of Patras, 2004

**Leah Lyons**

*Assistant Professor, Physiology*  
B.S., Florida Atlantic University, 1997  
Ph.D., University of Miami, 2005

**Barbara J. MacDougall**

*Assistant Professor, Nursing*  
A.D.N., Miami-Dade Community College, 1984  
B.S.N., University of Miami, 1989  
M.S.N., Florida International University, 1994

**Thomas MacFarland**

*Associate Professor, Health Science*  
B.S., Western Kentucky University, 1973  
M.S., Western Kentucky University, 1982  
Ed.D., Nova University, 1986

**Andrés Malavé**

*Dean, College of Pharmacy*  
*Professor, Pharmaceutical Sciences*  
B.S., University of Puerto Rico, 1972  
M.S., Purdue University, 1981  
Ph.D., Purdue University, 1983

**Lillian Arce-De Malavé**

*Assistant Professor, Pharmaceutical Sciences*

Pharm.D., Nova Southeastern University, 2001

**Maria Mandese**

*Assistant Professor, Optometry*  
B.S., University of South Florida, 2002  
O.D., NSU College of Optometry, 2006

**Melissa Marchesan**

*Associate Professor, Endodontics, Division of Surgical Sciences*  
D.D.S., University of Sao Paulo, 1998  
Certificate in Endodontics, University of Ribeirao Preto, 2001  
M.S., University of Sao Paulo, 2008  
Ph.D., University of Sao Paulo, 2008

**Andrew T. Mariassy**

*Professor, Anatomy*  
*Assistant Professor, Public Health*  
B.S., University of California, 1969  
M.S., University of California 1972  
Ph.D., University of California, 1980

**Julie Marin**

*Academic Facilitator/Instructor, Pharmacy Practice*  
B.S., UPR Rio Piedras Campus, 1985  
Pharmacy Technician, National College Bayamón, Puerto Rico, 1988  
Pharm.D., Nova Southeastern University, 2006

**Jehan Marino**

*Assistant Professor, Pharmacy Practice*  
Pharm.D., Northeastern University, 2004

**William H. Marquardt**

*Associate Dean, Physician Assistant Education and Associate Professor, Physician Assistant Department*  
B.S., University of Nebraska, 1976  
M.A., Central Michigan University, 1979  
Distinguished Fellow, American Academy of Physician Assistants

**Scott L. Martin**

*Instructor, Sports Medicine*  
B.S., Northern Illinois University, 1995  
D.O., Chicago College of Osteopathic Medicine, 2002

**Ana Karina Mascarenhas**

*Associate Dean for Research, Division Chief, Division of Primary Care Professor, Public Health*  
B.D.S., Goa Dental College and Hospital, 1985  
D.D.S., University of Bombay, 1986  
M.S., University of Michigan, 1992  
M.P.H., University of Michigan, 1992  
D.P.H., University of Michigan, 1995  
Ph.D., University of Michigan, 1995

**Hady Masri**

*Assistant Professor, Geriatrics*  
B.S., University of Miami, 1999  
M.S., Nova Southeastern University, 2001  
D.O., Nova Southeastern University, 2005

**Bindu S. Mayi**

*Assistant Professor, Microbiology*  
B.Sc., University of Bombay, 1988  
M.Sc., University of Bombay, 1991  
Ph.D., University of Missouri, 1998

**Harvey N. Mayrovitz**

*Professor, Physiology*  
B.S., Drexel University, 1962  
M.S., Drexel University, 1966  
Ph.D., University of Pennsylvania, 1974

**Joseph P. McCain**

*Professor, Oral and Maxillofacial Surgery*  
D.M.D., University of Pittsburgh, 1975  
CT—General Practice Residency, University of Miami, 1976  
CT—Oral and Maxillofacial Surgery, University of Miami, 1979  
Fellow, American Association of Oral and Maxillofacial Surgeons, 1979  
Diplomate, American Board of Oral and Maxillofacial Surgeons, 1984

**Odo K. McCallum**

*Clinical Director and Assistant Professor, Physician Assistant Studies*  
*Adjunct Assistant Professor, Public Health*  
B.S., Florida International University, 2000  
M.P.H., Maastricht University, 2004

**Heather McCarthy**

*Assistant Professor, Sports Medicine*  
B.S., Florida Southern College, 1999  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 2004

**Shawn McClure**

*OMFS Director of Research*  
D.M.D., Temple University, 1999  
M.D., State University of New York, 2002

**Jane McLaughlin-Middlekauff**

*Assistant Professor, Pharmacy Practice*  
Pharm.D., Drake University, 2001

**Hugh M. McLean**

*Associate Dean, Research and Graduate Education*  
*Professor, Pharmaceutical Sciences*  
B.S., State University of New York—  
Brockport, 1977  
M.S., Florida A&M University, 1988  
Ph.D., Florida A&M University, 1991  
Pharm.D., Creighton University, 2007

**Debra A. McNally**

*Instructor, Anatomy*  
B.S., Barry University, 1988  
M.S., Barry University, 2004

**Lina Mejia**

*Assistant Professor,*  
*Oral and Maxillofacial Radiology,*  
*Diagnostic Sciences*  
D.D.S., CES, Medellin, Columbia, 1999  
Advance Graduate Program in Oral  
Medicine, University of California, 2009

**Arnold Melnick**

*Professor, Pediatrics*  
*Professor, Public Health*  
*Professor, Medical Communications*  
A.B., Temple University, 1941  
D.O., Philadelphia College of  
Osteopathic Medicine, 1945  
M.A., Temple University, 1948  
M.Sc., Philadelphia College of Osteopathic  
Medicine, 1953  
Fellow, American College  
of Osteopathic Pediatricians  
Fellow, American College of Osteopathic  
Obstetricians and Gynecologists

**Gary J. Merlino**

*Assistant Professor, Internal Medicine*  
B.A., University of South Florida, 1986  
D.O., Southeastern University  
College of Osteopathic Medicine, 1992

**Angela Mesa-Taylor**

*Assistant Professor, Physician Assistant  
Department*  
B.S., University of Miami, 1999  
M.S., University of Florida, 2002

**Kristi Messer**

*Assistant Professor, Public Health*  
B.A., University of Wisconsin, 1990  
M.P.H., University of North Carolina—  
Chapel Hill, 1994  
M.S.W., University of North Carolina—  
Chapel Hill, 1995

**Miriam Metzner**

*Academic Facilitator/Assistant Professor,*  
*Pharmacy Practice*  
Pharm.D., University of Missouri, 1998

**Rafael Miguel**

*Assistant Professor,*  
*Anesthesiologist Assistant*  
M.D., Universidad de Cadiz, 1981

**Jane Miller**

*Instructor, Periodontology*  
R.D.H., Nova Southeastern University, 2006

**Timothy Miller**

*Assistant Professor, Anesthesiologist  
Assistant*  
B.S., Medical College of Georgia, 2001  
M.H.Sc., Nova Southeastern University, 2008

**Melissa Misko**

*Instructor, Optometry*  
B.S., Case Western Reserve, 2004  
O.D., Illinois College of Optometry, 2008

**Christopher Mitchell**

*Assistant Professor and Director,*  
*Bachelor of Health Science Programs*  
B.A., Lynchburg College, 1989  
M.S., Nova Southeastern University, 1999

**Mary Ellen Mitchell-Rosen**

*Assistant Professor, Nursing*  
B.S.N., University of Delaware, 1977  
M.S.N., University of Phoenix, 2001

**Peter Murray**

*Director, Biological Research*  
*Associate Professor, Endodontics*  
Ph.D., University of Birmingham, 2000

**Max Nahon**

*Assistant Professor and Director of*  
*Postgraduate Prosthodontics,*  
*Division of Primary Care*  
D.D.S., State University of New York—  
Buffalo, 1977  
Certificate, Prosthodontics, Medical  
College of Georgia, 2000

**Perla Najman**

*Assistant Professor, Optometry*  
B.A., Universidad de las Americas, 1976  
O.D., Nova Southeastern University, 1999

**Kenneth Namerow**

*Division Chief, Division of Surgical*  
*Sciences, Associate Professor and Chair,*  
*Endodontics*  
D.D.S., Fairleigh Dickinson University, 1985  
CT—Endodontics, Columbia University,  
1972

**Howard Neer**

*Professor, Family Medicine*  
B.A., Miami University, 1949  
D.O., Chicago College of  
Osteopathic Medicine, 1954  
Fellow, American College of  
Osteopathic Family Physicians

**Guy M. Nehrenz**

*Executive Associate Dean,*  
*College of Allied Health and Nursing*  
*Professor, Health Science Department*  
B.S., University of St. Francis, 1989  
M.A., University of Phoenix, 1992  
Ed.D., Nova Southeastern  
University, 1995

**Doris B. Newman**

*Associate Professor, Osteopathic*  
*Principles and Practice*  
B.S., Texas Women's University, 1986  
D.O., University of New England College  
of Osteopathic Medicine, 1998

**Hoi Kee Ng**

*Assistant Professor, Physician Assistant*  
*Program—Jacksonville*  
B.S., University of Central Florida, 1996  
B.S., University of Florida, 1998  
M.P.A.S., University of Florida, 1998

**Michael Nichols**

*Assistant Director and Assistant*  
*Professor, Anesthesiologist Assistant*  
B.S., University of Dayton, 1998  
M.S., Case Western Reserve University, 2000

**Enrique A. Nieves**

*Assistant Professor,*  
*Pharmaceutical Sciences*  
B.S.(Pharm), University of Puerto Rico,  
1977  
M.S., University of Florida, 1982  
Ph.D., University of Florida, 1982

**Leah Nof**

*Professor, Physical Therapy*  
M.S., University of Wisconsin, 1978  
Ph.D., Florida State University, 1994

**Alberto Noguera**

*Assistant Professor, Pediatric Dentistry,*  
*Division of Developmental Sciences*  
D.D.S., Javeriana University, Colombia,  
1986  
Certificate, Advanced Education, Nova  
Southeastern University, 2006  
Certificate, Advanced Education Dentistry  
II, Nova Southeastern University, 2007  
Certificate, Pediatric Dentistry, Nova  
Southeastern University, 2009

**Romer A. Ocanto**

*Section Chair and Professor,*  
*Pediatric Dentistry,*  
*Division of Developmental Sciences*  
M.S.P.H., Boston University, 1984  
M.Ed., University of Florida, 1985

D.D.S., Creighton University, 2000  
Fellow, American College of Dentists, 2007

**Terry Ogilby**

*Director and Associate Professor, Nursing*  
B.S.N., University of South Florida, 1990  
M.S.N., University of South Florida, 1994  
M.P.H., University of South Florida, 1998  
Ph.D., Capella University, 2004

**Pamela R. Oliver**

*Associate Professor, Optometry*  
O.D., State University of New York, 1990  
M.S., Nova Southeastern University, 1998

**Luana Oliveria-Wright**

*Assistant Professor, Cariology and Restorative Dentistry*  
D.D.S., Federal University of Uberlandia, Brazil, 1995

**Robert Oller**

*Professor, Family Medicine*  
*Professor, Public Health*  
B.A., University of California, 1965  
D.O., Kirksville College of Osteopathic Medicine, 1969

**Hamid Omidian**

*Assistant Professor, Pharmaceutical Sciences*  
B.S., Tehran Polytechnique University, 1987  
M.S., Tehran Polytechnique University, 1990  
Ph.D., Brunel University, 1997

**William Orr**

*Director and Assistant Professor, Anesthesiologist Assistant*  
B.S., Albany State, 1993  
M.M.Sc., Emory University, 1996

**Blanca Ortiz**

*Assistant Professor, Pharmacy Practice*  
B.S., University of Puerto Rico, 1993  
M.S., University of Puerto Rico, 1998  
Pharm.D., Nova Southeastern University, 2003

**Ana Ospina**

*Predoctoral Director and Assistant Professor, Oral and Maxillofacial Surgery*  
D.D.S., University, Medellin, Colombia, 1997

**Melba Ovalle**

*Medical Director, Assistant Program Director, and Associate Professor, Physician Assistant Studies*  
B.S., Pace University, 1978  
M.D., Boston University, 1982

**Raymond Ownby**

*Professor, Psychiatry*  
*Professor, Biomedical Informatics*  
*Professor, Public Health*  
B.A., Ohio University, 1973  
M.D., Northeastern Ohio University College of Medicine, 1974  
Ph.D., Kent State University, 1980  
M.B.A., University of Miami, 2002

**Edward E. Packer**

*Professor, Pediatrics*  
B.A., Rutgers University, 1971  
D.O., Philadelphia College of Osteopathic Medicine, 1976

**Thomas A. Panavelil**

*Professor, Pharmacology*  
B.S., University of Kerala, India, 1979  
M.Sc., National Dairy Research Institute, India, 1983  
Ph.D., University of Miami School of Medicine, 1998

**Naushira Pandya**

*Professor, Internal Medicine*  
M.D., University College & Middlesex Medical School, 1979

**Frederick A. Paola**

*Medical Director and Professor, Physician Assistant Studies*  
B.S., Stony Brook University, 1980  
M.D., Yale University School of Medicine, 1984  
Diplomate, American Board of Internal Medicine, 1987  
J.D., New York University School of Law, 1991

**Panayotis Papatzimas**

*Assistant Professor, Cariology and Restorative Dentistry*  
D.D.S., Virginia Commonwealth University, 1991



**Judith Parker**

*Director, Occupational Therapy  
Dr.OT Program*  
Associate Professor, Occupational Therapy  
B.S., Adelphi University, 1975  
M.S., Columbia University, 1979  
O.T.D., Creighton University, 2004  
Ed.S., Nova Southeastern University, 2008  
Fellow, American Occupational  
Therapy Association

**Michael Parker**

*Associate Professor and Chair,  
Pharmacology*  
B.A., University of San Diego, 1990  
Ph.D., University of Miami  
School of Medicine, 1999

**William Parker**

*Section Chair, Director, Associate  
Professor, Periodontology, Division of  
Surgical Sciences*  
D.D.S., Medical School of Virginia School  
of Dentistry, 1977  
CT—Periodontics, Naval Postgraduate  
Dental School, Maryland, 1984  
Diplomate, American Board of  
Periodontology, 1989

**Marianna Pascuita**

*Assistant Professor, Prosthodontics*  
D.D.S., University of Venezuela, 1998

**Kyrus E. Patch**

*Associate Chair, Academic Director,  
and Assistant Professor, Physician  
Assistant Studies*  
B.S./P.A., Alderson-Broaddus College, 1977  
M.S., Alderson-Broaddus College, 2007  
Fellow, American Academy  
of Physician Assistants  
Fellow, Florida Academy  
of Physician Assistants

**Arnie Patrick**

*Assistant Professor, Optometry*  
B.A., Brooklyn College, 1975  
A.A.S., New York City Community  
College, 1977  
O.D., Nova Southeastern University  
College of Optometry, 1994

**Michael Patten**

*Assistant Professor, Prosthodontics,  
Division of Primary Care*  
D.D.S., University of Iowa, 1968  
Master in Comprehensive Training,  
University of Florida, 1984

**Nicole Patterson**

*Assistant Professor, Optometry*  
B.A., Loras College, 1998  
A.A.S., New York City Community  
College, 1977  
O.D., Southern College  
of Optometry, 2002  
Fellow, American Academy of Optometry

**Cathy Peirce**

*Assistant Professor,  
Occupational Therapy*  
B.S., Ohio State University, 1974  
M.A., University of Southern  
California, 1984  
Ph.D., Nova Southeastern University, 2002

**John C. Pellosie, Jr.**

*Assistant Professor, Preventive Medicine  
Assistant Professor, Public Health*  
D.O., Philadelphia College of Osteopathic  
Medicine, 1978  
M.P.H., University of Texas School of  
Public Health, 1984  
Fellow, American Osteopathic College of  
Occupational and Preventive Medicine

**Dennis H. Penzell**

*Associate Professor, Internal Medicine*  
B.S., University of Maryland, 1974  
D.O., New York College of Osteopathic  
Medicine, 1981

**Alina M. Perez**

*Assistant Professor, Public Health*  
B.S., Florida Medical College, 1988  
M.S.W., Barry University, 1988  
J.D., University of Miami, 1996  
M.P.H., University of South Florida, 2008

**Marisa Perez**

*Faculty Member, Optometry*  
B.S., University of California, 2001  
O.D., University of California—Berkeley,  
2006

**Alexandra Perez Rivera**

*Assistant Professor, Sociobehavioral and Administrative Pharmacy*

Pharm.D., Nova Southeastern University, 2005

M.S., University of Illinois—Chicago, 2008

**Bruce B. Peters**

*Professor, Pediatrics*

B.A., Northwestern University, 1979

D.O., Chicago College of Osteopathic Medicine, 1984

**Stephen Pfister**

*Associate Professor, Physical Therapy*

*Director, Allied Health and Nursing Clinics*

B.S., University of Wisconsin, 1993

M.S., University of Pittsburgh, 1998

**Ingrid Pichardo-Murray**

*Assistant Professor, Physician Assistant Studies*

B.S., Judson College, 1992

B.S., Florida International University, 1996

M.P.A.S., University of Florida, 2001

**Carrigan Pick**

*Assistant Professor, Community*

*Dentistry, Division of Developmental Sciences*

D.M.D., Harvard School of Dental Medicine, 2009

**Joseph J. Pizzimenti**

*Associate Professor, Optometry*

B.A., Drew University, 1985

O.D., Illinois College of Optometry, 1989

Fellow, American Academy of Optometry

**Ioana Popovici**

*Assistant Professor, Sociobehavioral and Administrative Pharmacy*

B.Sc., Babes-Bolyai University—Romania, 1997

M.A., Florida International University, 2003

Ph.D., Florida International University, 2007

**Charles Powell**

*Associate Professor, Pharmacology*

B.S., Florida State University, 1983

M.S., Florida A&M University, 1988

Ph.D., Florida A&M University, 1996

**Peter R. Pugliese**

*Assistant Professor, Cariology and Restorative Dentistry*

B.S., Ohio State University, 1960

D.D.S., Ohio State University

College of Dentistry, 1964

**Cheryl Purvis**

*Associate Professor, Anatomy*

B.S., University of South Carolina, 1986

Ph.D., University of Kentucky

College of Medicine, 1998

**Harvey Quinton**

*Assistant Professor, Cariology and Restorative Dentistry*

D.D.S., Howard University, 1978

**Silvia Rabionet**

*Associate Professor, Sociobehavioral and Administrative Pharmacy*

B.A., Mount Holyoke College, 1979

Ed.M., Harvard University, 1980

Ed.D., Harvard University, 2002

**John Rafalko**

*Associate Professor,*

*Physician Assistant Studies*

B.S., Towson State University, 1984

A.A./P.A., Essex

Community College, 1986

M.S., Towson State University, 1992

Ed.D., Nova Southeastern University, 2007

Fellow, American Academy

of Physician Assistants

**Robert Ramer**

*Assistant Professor, Cariology and Restorative Dentistry*

D.D.S., New Jersey College, 1965

**Brian P. Ramos**

*Assistant Professor, Physiology*

B.S., University of Puerto Rico, Malaquez Campus

Ph.D., Yale University

**Sarah Ransdell**

*Associate Professor,  
Allied Health and Nursing*  
B.A., University of Kentucky, 1983  
M.S., University of Florida, 1985  
Ph.D., University of Florida, 1987

**Hugh G. Rappa**

*Associate Department Chair, Academic  
Director, and Professor, Physician  
Assistant Program—Jacksonville*  
B.S., Queens College, 1978  
M.D., University of Padua, Italy, 1991  
Fellow, American Association of  
International Physicians  
Fellow, American Educators  
of Radiological Sciences  
Member, Pi Alpha Honor Society

**Appu Rathinavelu**

*Associate Dean, Institutional Planning  
and Development  
Associate Professor,  
Pharmaceutical Sciences*  
B.S., University of Madras, 1978  
M.S., University of Madras, 1980  
M.Phil., University of Madras, 1981  
Ph.D., University of Madras, 1985

**Mutasem Rawas-Qalaji**

*Assistant Professor,  
Pharmaceutical Sciences*  
B.Pharm., King Saud University, 1995  
Ph.D., University of Manitoba, 2006

**Kimberly Kay Reed**

*Associate Professor, Optometry*  
B.S., Auburn University, 1986  
O.D., University of Alabama  
College of Optometry, 1990  
Fellow, American Academy of Optometry

**Charles E. Reigel, Jr.**

*Professor, Pharmacology*  
B.A., Northeast Louisiana University, 1975  
M.S., Northeast Louisiana University, 1978  
Ph.D., Northeast Louisiana University, 1983

**Herbert Remnick**

*Professor, Diagnostic Sciences*  
D.D.S., Columbia University, 1947

**José A. Rey**

*Associate Professor,  
Pharmaceutical Sciences*  
Pharm.D., University of Florida  
College of Pharmacy, 1991

**Sherrol Reynolds**

*Associate Professor, Optometry*  
B.A., University of Florida, 1991  
O.D., Nova Southeastern University, 1996  
Fellow, American Academy of Optometry

**Erin Rice**

*Clinical Assistant Professor,  
Pharmacy Practice*  
Pharm.D., Nova Southeastern University,  
2007

**Kenya M. Rivas-Valasquez**

*Assistant Professor, Geriatrics*  
M.D., University of Los Andes, 1993

**Kaye Robertson**

*Assistant Professor, Family Medicine*  
M.S., University of Illinois, 1972

**Jacqueline Rodena**

*Assistant Professor, Optometry*  
B.S., Florida State University, 1999  
O.D., Nova Southeastern University, 2004  
Fellow, American Academy of Optometry

**Julie Rodman**

*Assistant Professor, Optometry*  
B.A., Brandeis University, 1994  
O.D., New England College of Optometry,  
1998  
Fellow, American Academy of Optometry

**Andres Rodriguez**

*Instructor, Prosthodontics,  
Division of Primary Care*  
D.D.S., Pontificia Universidad Javeriana  
(Colombia), 1989  
Dental Laboratory Technology, University  
of Texas Health Science Center—San  
Antonio, 2003

Certificate in Prosthodontics, University of Minnesota, 2006

**Jorgelin Rodriguez**

*Assistant Professor, Community Dentistry, Division of Developmental Sciences*  
D.M.D., Nova Southeastern University, 2006

**Cecilia F. Rokusek**

*Professor, Family Medicine*  
*Professor, Public Health*  
B.A., Mount Marty College, 1975  
M.S., University of Nebraska, 1976  
Ed.D., University of South Dakota, 1983

**Mark A. Romer**

*Assistant Director, Predoctoral Clinics*  
*Instructor, Prosthodontics*  
D.D.S., Medical College of Virginia, 1970  
Fellow, American College of Dentists, 2002  
Fellow, International College of Dentists, 2004

**Irving Rosenbaum**

*Executive Dean for Administration and Provost, Health Professions Division*  
*Professor, Public Health*  
B.A., State University of New York at Buffalo, 1971  
M.P.A., University of New York, 1974  
D.P.A., Nova University, 1984  
Ed.D., Nova Southeastern University, 2006

**Rebecca Rosenthal**

*Associate Professor, Physical Therapy*  
*Director, Clinical Education, Entry-Level D.P.T. Program*  
B.S. PT, Sargent College, 1976  
M.S., University of Michigan, 1978  
J.D., Nova University, 1990

**Jill A. Ross**

*Instructor, Family Medicine*  
B.A., Florida Atlantic University, 1999  
D.O., Nova Southeastern University, 2007

**Mark Roth**

*Assistant Professor, Periodontology*  
D.D.S., New York University, 1967  
CT—Periodontics, New York University, 1975

**Linda S. Rouse**

*Assistant Professor, Optometry*  
*Chief Operations Officer, The Eye Care Institute*  
B.S., Stetson University, 1988  
O.D., Illinois College of Optometry, 1992  
Fellow, American Academy of Optometry

**Marcella Rutherford**

*Director and Associate Professor, Nursing*  
B.H.S., Florida Atlantic University, 1990  
M.B.A., Florida Atlantic University, 1997  
M.S., Florida Atlantic University, 2003  
Ph.D., Florida Atlantic University, 2007

**Jay M. Rumsey III**

*Associate Professor, Optometry*  
B.S., University of West Florida, 1969  
O.D., University of Houston, 1979  
Fellow, American Academy of Optometry

**Susan Ryan**

*Assistant Professor, Physician Assistant Studies*  
B.S., Stony Brook University, 2001  
M.P.A.S., University of Nebraska Medical Center, 2009

**Steven J. Sager**

*Assistant Professor, Physician Assistant Studies*  
B.S./P.A., University of Nebraska, 1992  
M.P.A.S., University of Nebraska, 1998  
Fellow, American Academy of Physician Assistants

**Mara R. Sanchez**

*Assistant Professor, Physician Assistant Studies*  
B.S., University of Florida, 1997  
M.M.S., Nova Southeastern University, 2004  
Fellow, American Academy of Physician Assistants

**Mark Sandhouse**

*Associate Professor, Osteopathic Principles and Practice*  
B.S., University of Miami, 1981  
D.O., Southeastern University College of Osteopathic Medicine, 1988

**Nisaratana Sangasubana**

*Assistant Professor, Sociobehavioral and Administrative Pharmacy*

B.S., Chulalongkorn University School of Pharmacy, 1993

M.S., University of Wisconsin—Madison School of Pharmacy, 2002

Ph.D., University of Wisconsin—Madison School of Pharmacy, 2003

**Edwin Santini**

*Assistant Professor, Pharmaceutical Sciences*

B.S., Interamerican University of Puerto Rico, 1997

Ph.D., Ponce School of Medicine, 2004

**Richard Saul**

*Associate Professor, Audiology*

B.A., University of Florida, 1973

M.A., Florida Atlantic University, 1976

Ph.D., State University of New York at Buffalo, 1983

**Tamer Cem Sayin**

*Assistant Professor, Endodontics*

D.D.S., Hacettepe University, 2000

Ph.D., Hacettepe University, 2007

**Judith P. Schaffer**

*Assistant Professor, Family Medicine*

B.A., Boston University, 1976

D.O., West Virginia School of Osteopathic Medicine, 1985

**Debbie Glasser Schenk**

*Affiliated Professor, Child Development Specialist*

B.A., Wellesley College, 1987

M.S., Nova Southeastern University, 1991

Ph.D., Nova Southeastern University, 1996

**Zoanne Schinas**

*Assistant Professor, Optometry*

B.S., Florida International University, 1999

O.D., Nova Southeastern University, 2004

**James Schiuma**

*Assistant Professor, Cariology and Restorative Dentistry*

D.D.S., New York University College of Dentistry, 1965

**Dorothy Schmuhl**

*Assistant Professor, Nursing*

A.D.N., Macomb College, 1986

B.S.N., University of Phoenix, 2005

M.S.N., Walden University, 2009

**Wayne A. Schreier**

*Professor and Chair, Physiology*

B.S., Southern Illinois University, 1977

M.S., University of California—Los Angeles, 1987

Ph.D., University of California—Los Angeles, 1991

**Robin Schugar**

*Assistant Professor,*

*Physician Assistant Department*

B.S., University of Arizona, 1991

M.S., Arcadia University, 1999

Fellow, American Academy of Physician Assistants

**Mark Schweizer**

*Assistant Professor,*

*Cariology and Restorative Dentistry*

D.D.S., University of Maryland, 1982

**Sandi D. Scott-Holman**

*Assistant Professor, Family Medicine*

B.S., Barry University, 1976

D.O., Southeastern University

College of Osteopathic Medicine, 1993

**Matthew Seamon**

*Associate Professor, Pharmacy Practice*

A.S., Nassau Community College, 1992

B.A., Florida Atlantic University, 1994

Pharm.D., University of Michigan, 1998

**Kenneth Seger**

*Associate Professor, Optometry*

B.S., University of California—Berkeley, 1973

O.D., University of California—Berkeley, 1975

M.Sc., University of Manchester, 1982

Fellow, American Academy of Optometry

**Robert Seltzer**

*Director of Predoctoral Endodontics*  
*Associate Professor, Endodontics*  
D.M.D., University of Pennsylvania, 1972  
CT—Endodontics,  
University of Pennsylvania, 1976

**Josephine Shallo-Hoffmann**

*Professor, Optometry*  
M.A., Rutgers University, 1978  
Ph.D., Rutgers University, 1984  
Fellow, American Academy of Optometry

**Eric C. Shamus**

*Associate Professor, Osteopathic*  
*Principles and Practice*  
B.S., Florida International University,  
1992  
M.S., Lynn University, 1997  
Ph.D., Lynn University, 2001

**Laurence Shapiro**

*Assistant Professor, Cariology and*  
*Restorative Dentistry*  
D.D.S., New York University, 1975

**Daniel E. Shaw**

*Associate Professor, Psychiatry*  
*Associate Professor, Biomedical*  
*Informatics*  
B.S., University of Florida, 1974  
M.Ed., University of Florida, 1975  
Ed.S., University of Florida, 1978  
Ph.D., University of Florida, 1981

**Diana Shechtman**

*Associate Professor, Optometry*  
B.S., University of Florida, 1994  
O.D., Nova Southeastern University  
College of Optometry, 1998  
Fellow, American Academy of Optometry

**Eyad Shehadeh**

*Clinical Assistant Professor,*  
*and Director Community Dentistry*  
D.D.S., Damascus University, 1999  
CT—AEGD, Nova Southeastern  
University, 2004

**Elizabeth Sherman**

*Assistant Professor, Pharmacy Practice*

B.A., New College of Florida, 2001  
Pharm.D., Nova Southeastern  
University, 2007

**Michael Siegel**

*Professor and Section Chair, Diagnostic*  
*Sciences, Division of Primary Care,*  
*Professor, Dermatology*  
*Professor, Internal Medicine*  
D.D.S. Baltimore College of Dental  
Surgery, 1979  
CT—Prosthodontics, Baltimore College  
of Dental Surgery, University of Maryland,  
1992  
M.S., University of Maryland, 1995  
Fellow, Academy of General Dentistry, 1986  
Fellow, American College of Dentists, 2000  
Fellow, Pierre Fauchard Academy, 2001  
Fellow, International College of Dentists, 2006

**Sharon Siegel**

*Section Chair and Associate Professor,*  
*Prosthodontics, Division of Primary Care*  
D.D.S., Baltimore College  
of Dental Surgery, 1979  
CT—Prosthodontics, Baltimore College  
of Dental Surgery, University of Maryland,  
1992  
M.S., University of Maryland, 1995  
Fellow, Academy of General Dentistry, 1986  
Fellow, American College of Dentists, 2000  
Fellow, Pierre Fauchard Academy, 2001  
Fellow, International College of Dentists,  
2006

**Anthony J. Silvagni**

*Dean, College of Osteopathic Medicine*  
*Professor, Family Medicine*  
*Clinical Professor, Pharmacy Practice*  
*Professor, Public Health*  
B.S. (Pharm.), Philadelphia College of  
Pharmacy and Science, 1963  
M.S. (Pharm.), Philadelphia College of  
Pharmacy and Science, 1966  
Pharm.D., Philadelphia College of  
Pharmacy and Science, 1970  
D.O., Philadelphia College of  
Osteopathic Medicine, 1982  
Fellow, American College of  
Osteopathic Family Physicians

Fellow, American Foundation for  
Pharmaceutical Education

**John Silver**

*Assistant Professor, Nursing*  
B.S.N., Florida Atlantic University, 1998  
M.S.N., Florida Atlantic University, 1999  
Ph.D.(FINL), Florida Atlantic University,  
2010

**Stanley L. Simpson**

*Associate Professor, Family Medicine*  
B.S., Temple University, 1959  
D.O., Philadelphia College of  
Osteopathic Medicine, 1974

**Richard Singer**

*Assistant Professor, Orthodontics*  
D.M.D., Washington University  
M.S., Orthodontics, St. Louis University

**Devada Singh**

*Assistant Professor, Pharmacy Practice*  
B.S. (Pharm.), Arnold & Marie Schwartz  
College of Pharmacy, 1995  
Pharm.D., Arnold and Marie  
Schwartz College of Pharmacy, 2000

**Feroza Sircar-Ramsewak**

*Academic Facilitator/Instructor,  
Pharmaceutical Sciences*  
B.S., Long Island University, 1973  
M.S., St. John's University, 1980  
Pharm.D., Albany College of Pharmacy, 2004

**Frank Slavichak**

*Assistant Professor and Director,  
Community Dentistry*  
D.D.S., Ohio State University, 1977

**Debbie Slipkovich**

*Assistant Professor, Nursing*  
M.S.N., Youngstown State University, 2006

**Kristen Smethurst**

*Assistant Professor, Clinical Director,  
Physician Assistant Program—Orlando*  
B.A., Rollins College, 1996  
M.P.A.S., University of Florida, 2003

**Donna J. Smith**

*Assistant Professor, Physician Assistant  
Program—Jacksonville*  
A.S., Morehead State University, 1980  
P.A., University of Kentucky, 1983  
B.S., University of Kentucky, 1990  
M.P.A.S., University of Nebraska, 2010

**Kristina Smith-Beekhuizen**

*Associate Professor, Physical Therapy*  
B.S., University of Miami, 1992  
M.S., University of Miami, 1997  
Ph.D., University of Miami, 2004

**Samuel K. Snyder**

*Associate Professor, Nephrology*  
A.B., Princeton University, 1973  
D.O., Philadelphia College of  
Osteopathic Medicine, 1980

**Donald Sokolik**

*Assistant Professor and Medical Director,  
Anesthesiologist Assistant*  
B.A., Washington University, 1968  
M.D., Emory University, 1971

**Lisa B. Soontupe**

*Associate Professor, Nursing*  
B.S., State University of New York, 1975  
M.A., New York University, 1977  
Ed.D., Nova Southeastern University, 2010

**Brenda Soto-Torres**

*Assistant Professor, Sociobehavioral  
and Administrative Pharmacy*  
B.S., University of Puerto Rico, 1989  
M.P.H.E., University of Puerto Rico, 1993  
Ph.D., University of  
Missouri—Columbia, 1998  
M.S., Nova Southeastern University, 2009

**Oscar Sotsky**

*Predocctoral Director and  
Assistant Professor, Orthodontics*  
D.D.S., New York University, 1955  
M.S., New York University, 1989  
Fellow, Pierre Fauchard Society

**Joseph W. Sowka**

*Professor, Optometry*

B.S., Cornell University, 1985  
B.S., Pennsylvania College  
of Optometry, 1987  
O.D., Pennsylvania College of  
Optometry, 1989  
Diplomate, American Academy of  
Optometry

**Janet Sparker**

*Assistant Professor, Physician Assistant  
Studies*

B.A./P.A., Lake Erie College, 1979  
B.S., Nursing Ursuline College, 1991  
Fellow, American Academy  
of Physician Assistants  
Fellow, Florida Academy  
of Physician Assistants

**Robert C. Speth**

*Professor, Pharmaceutical Sciences*  
B.A., Western Maryland College, 1968  
M.A., Connecticut College, 1972  
Ph.D., Vanderbilt University, 1976

**Sally Jo Spooner**

*Assistant Professor, Nursing*  
M.S.N., The University of Phoenix, 2004  
Ph.D., Nova Southeastern University,  
2008

**Jennifer Steinberg**

*Assistant Professor, Pharmacy Practice*  
Pharm.D., University of Florida, 2005

**Debra C. Steinkohl**

*Assistant Professor, Family Medicine*  
*Assistant Professor, Public Health*  
B.S./B.A., University of Florida, 1984  
M.H.S.A., Florida International  
University, 1985

**Debra Feingold Stern**

*ACCE Coordinator, Part-time Entry-  
Level D.P.T. Program*  
*Associate Professor, Physical Therapy*  
*Associate Professor, Public Health*  
B.S./P.T., State University  
of New York at Buffalo, 1974  
M.S.M., Rollins College, 1977  
D.B.A., Nova Southeastern  
University, 2003

**Sabrina Stern**

*Assistant Professor, Nursing*  
B.A., University State of New York, 1990  
M.S.N., University of Phoenix, 2005

**Micheal Stout**

*Assistant Professor, Anesthesiologist*  
*Assistant*  
B.S., University of Florida, 2002  
M.M.Sc., Emory University, 2006

**Linda Strommen**

*Associate Chair and Program Director,  
Nursing*  
Diploma R.N., St. Cloud Hospital School  
of Nursing, 1979  
B.S.N., College of St. Benedict's, 1983  
M.S.N., St. Joseph's College, 2002  
Ed.D., Nova Southeastern University, 2010

**Gabriel P. Suci**

*Associate Professor, Public Health*  
Ph.D., Romanian Academy, 1999  
M.S.P.H., University of South Carolina of  
Public Health, 2001

**Ellie Suzuki**

*Instructor, Community Dentistry,  
Division of Developmental Sciences*  
D.D.S., Kanagawa Dental College, Japan,  
2001

**P. Stephen Taraskevich**

*Professor, Physiology*  
B.A., University of California—  
Los Angeles, 1967  
M.A., University of California—  
Los Angeles, 1969  
Ph.D., University of California—  
Los Angeles, 1973

**Burak Taskonak**

*Associate Professor,  
Cariology and Restorative Dentistry,  
Division of Primary Care*  
Ph.D., University of Florida, 2004  
D.D.S., Indiana University, 2007

**Yin Tea**

*Assistant Professor, Optometry*  
B.S., University of California—  
Los Angeles, 1995



O.D., Southern California  
College of Optometry, 1999  
Fellow, American Academy of Optometry

**David L. Thomas**

*Professor, Surgery*  
*Professor, Public Health*  
A.B., University of Miami, 1966  
M.D., University of Miami  
School of Medicine, 1970  
J.D., Stetson University  
College of Law, 1995

**Jeffrey Thompson**

*Professor, Prosthodontics, Division of  
Primary Care*  
Ph.D., University of Florida, 1995

**Patricia Toribio**

*Assistant Professor, Vascular  
Sonography*  
B.A., University of Peru, 1998  
B.H.Sc., Nova Southeastern  
University, 2006  
M.H.Sc., Nova Southeastern  
University, 2007

**Luz Torres Flores**

*Academic Facilitator/Instructor,  
Pharmacy Practice*  
B.S. Pharm, University of Puerto Rico, 1989  
Pharm.D., Nova Southeastern  
University, 2006

**Annelyn Torres-Reverón**

*Assistant Professor, Pharmaceutical  
Sciences*  
B.S., University of Puerto Rico, 1999  
Ph.D., State University of New York, 2005

**Melissa Tovin**

*Assistant Professor, Physical Therapy*  
B.S., New York University, 1988  
M.A., Columbia University, 1993  
Ph.D., Georgia State University, 1999

**William Trevarthen**

*Postgraduate Director and Associate  
Professor, Pediatric Dentistry*  
D.M.D., University of Louisville, 1963  
CT—Pediatric Dentistry, Children's  
Hospital, 1972

Diplomate, American Board of Pediatric  
Dentistry, 1990

**Almos Bela Trif**

*Associate Professor, Pathology*  
M.D., University of Medicine and  
Pharmacy, Romania, 1976  
J.D., University Al I. Cuza Iasi,  
Romania, 1984  
Ph.D., University of Medicine  
and Pharmacy, 1995

**Khin M. Tu**

*Associate Professor, Anatomy*  
*Associate Professor, Public Health*  
M.B.B.S., University of Mandalay,  
Myanmar, 1965  
M.Ch., University of Liverpool,  
Great Britain, 1972  
Fellow, Royal Australian  
College of Surgery  
Fellow, Royal College of Surgery,  
Edinburgh, Scotland  
Fellow, Royal College of Surgery,  
Great Britain

**Julie Tyler**

*Associate Professor, Optometry*  
B.A., Creighton University, 1992  
O.D., Indiana University School of  
Optometry, 1996  
Fellow, American Academy of Optometry

**Robert Uchin**

*Dean, College of Dental Medicine*  
*Professor, Endodontics*  
D.D.S., Temple University  
School of Dentistry, 1957  
Diplomate, American Board of Endodontics  
Fellow, American Association of Endodontics  
Fellow, American College of Dentists, 1982  
Fellow, International College of Dentists,  
1983

**Daniel J. Vacca**

*Clinical Pharmacist/Instructor*  
B.S., University of Pittsburgh, 1993  
M.B.A., Clarion University, 2002

**Jorge Varela**

*Academic Facilitator/Instructor,  
Pharmaceutical Sciences*

B.S., University of Florida, 1983  
B.S., University of Florida, 1985  
Pharm.D., University of Florida, 1989

**Ines Velez**

*Professor and Director,  
Diagnostic Sciences*  
D.D.S., COC Columbia, 1979  
CT—University of Florida, 1984  
M.S., Universidad de los Andes Bogota,  
1989  
M.S., Academy of Laser Dentistry USA,  
1997  
Diplomate, American Board of Oral and  
Maxillofacial Pathology, 2000  
Fellow, American Academy of Oral  
Pathology, 1984

**K.V. Venkatachalam**

*Professor, Biochemistry*  
B.S., Washington State University, 1983  
M.S., Washington State University, 1985  
Ph.D., Texas A&M, 1991

**Rick Vogel**

*Assistant Professor,  
Cariology and Restorative Dentistry*  
D.D.S., New York University, 1979

**Lori Vollmer**

*Assistant Professor, Optometry*  
B.A., University of South Florida, 1990  
O.D., Nova Southeastern University, 2002  
Fellow, American Academy of Optometry

**Heidi Wagner**

*Professor, Optometry*  
B.S., Ohio State University, 1984  
O.D., Ohio State University, 1986  
Diplomate, American Academy  
of Optometry

**Robert Wagner**

*Director and Assistant Professor,  
Anesthesiologist Assistant*  
B.S., Florida A&M University, 1987  
M.M.Sc., Emory University, 1991  
M.P.H., University of Massachusetts, 2004

**Elaine M. Wallace**

*Professor, Osteopathic  
Principles and Practice*

B.S., University of Mississippi, 1976  
D.O., University of Health Sciences  
College of Osteopathic Medicine, 1980  
M.S., University of Kansas, 2003

**Donald Walters**

*Associate Professor, Pharmacology*  
B.S., St. Louis College of Pharmacy, 1980  
Ph.D., University of Louisville, 1986

**Barry Waterman**

*Assistant Professor, Community Dentistry*  
D.M.D., Tufts University, 1976

**Sally A. Weiss**

*Associate Chair and Professor, Nursing*  
B.S.N., American University, 1972  
M.S.N., University of Miami, 1986  
Ed.D., Florida International University,  
1997

**Marline Whigham**

*Assistant Professor, Nursing*  
B.S.N., Florida Atlantic University, 2002  
M.S.N., University of Phoenix, 2007

**Albert W. Whitehead**

*Assistant Dean for Student and  
Administrative Services,  
College of Osteopathic Medicine*  
*Assistant Professor, Family Medicine*  
B.S., University of Nevada, 1985  
D.M.D., University of Pittsburgh, 1990  
M.Ed., University of Pittsburgh, 1994  
M.B.A., University of Pittsburgh, 1998

**Diane Whitehead**

*Associate Dean, College of Allied Health  
and Nursing*  
*Chair and Professor,  
Nursing Department*  
B.S.N., Florida State University, 1966  
M.S.N., University of Miami, 1986  
Ed.D., Florida International University, 1997

**Margaret L. Wilkinson**

*Assistant Professor,  
Community Medicine*  
*Assistant Professor, Public Health*  
M.A., Michigan State University, 1967  
Ph.D., Kent State University, 1989

**J. Keith Williams**

*Assistant Professor,  
Physician Assistant Studies*  
B.A., Western Connecticut  
State University, 1976  
B.S., University of Florida, 1983  
M.P.A.S., University of Nebraska, 2005  
Fellow, American Academy  
of Physician Assistants

**Stanley H. Wilson**

*Associate Dean, Academic Affairs,  
College of Allied Health and Nursing*  
*Associate Professor, Physical Therapy*  
B.S. PT, Howard University, 1981  
M.S., St. Thomas University, 1984  
Ed.D., Florida International  
University, 2000

**William R. Wolowich**

*Chair and Assistant Professor,  
Pharmacy Practice*  
B.Sc. (Pharm.), University of  
Manitoba, 1988  
Pharm.D., State University of  
New York at Buffalo, 1993

**Christopher E. Woodruff**

*Associate Professor, Optometry*  
B.S., Ohio State University, 1981  
O.D., Ohio State University, 1986  
M.B.A., Nova Southeastern University, 2003  
Fellow, American Academy of Optometry

**Albert D. Woods**

*Associate Professor, Optometry*  
B.A., Western Washington University, 1982  
M.S., Florida Institute of Technology, 1986  
B.S., Pennsylvania  
College of Optometry, 1987  
O.D., Pennsylvania  
College of Optometry, 1990  
Fellow, American Academy of Optometry

**Maria L. Yataco**

*Clinical Assistant Professor,  
Internal Medicine*  
M.D., Cayetano Heredia University, 1988

**Rick K. Yip**

*Professor, Anatomy*  
B.S., Southern Illinois University, 1975

M.S., University of Arkansas, 1980  
Ph.D., Medical College of Wisconsin, 1985  
M.B.A., Nova Southeastern University, 2005

**Samuel Yoders**

*Clinical Coordinator and Assistant  
Professor, Vascular Sonography*  
B.S., University of Akron, 1985  
B.H.Sc., Nova Southeastern University, 2006  
M.H.Sc., Nova Southeastern University, 2008

**Yuri Zagvazdin**

*Associate Professor, Physiology*  
B.S., Tyumen State University, 1982  
Ph.D., Sechenov Institute  
of Evolutionary Physiology  
& Biochemistry, National  
Academy of Sciences, 1989

**Antonia Zapantis**

*Associate Professor, Pharmacy Practice*  
A.A., Broward Community College, 1997  
Pharm.D., Nova Southeastern  
University, 2001

**Norman Zarr**

*Assistant Professor, Cariology and  
Restorative Dentistry*  
D.D.S., University of Tennessee, 1969

**Robert Zarranz**

*Assistant Professor,  
Physician Assistant Studies*  
B.S., University of Miami, 1973  
M.D., Creighton University, 1978  
Diplomate, American Board of  
Otolaryngology, 1985  
Fellow, American Academy of  
Otolaryngology

**Bin Zhang**

*Associate Professor, Optometry*  
M.D., Nanjing University, 1995  
M.S., Nanjing University, 1997  
Ph.D., University of Houston, 2003

**Michelle Jamongjit Zhao**

*Assistant Professor, Pharmacology*  
B.A., University of Texas, 2002  
Ph.D., University of Texas, 2006

**Steven B. Zucker**

*Professor, Family Medicine*

*Professor, Public Health*  
*Professor, Community Dentistry*  
B.A., University of Pennsylvania, 1969  
D.M.D., University of Connecticut School  
of Dental Medicine, 1973  
M.Ed., University of Hartford, 1973

## **Adjunct/Clinical/Visiting Faculty**

**Stephen D. Aaron**  
*Clinical Assistant  
Professor, Orthodontics*  
D.M.D., Fairleigh Dickinson University  
College of Dental Medicine, 1976

**Elizabeth M. Aarons**  
*Clinical Assistant Professor, Pediatrics*  
B.A., University of Florida, 2001  
M.D., University of Miami School of  
Medicine, 2005

**Mick Abae**  
*Clinical Assistant Professor, Obstetrics  
and Gynecology*  
B.S., Fairleigh Dickinson University, 1977  
M.S., Fairleigh Dickinson University, 1979  
M.D., New York Medical College, 1984

**Nuzhat A. Abbasi**  
*Clinical Assistant Professor,  
Internal Medicine*  
M.D., Fatima Jinnah Medical College, 1973

**Omar Abdo**  
*Clinical Assistant Professor,  
Restorative Dentistry*  
D.D.S., University of Jordan, 1992

**Ibrahim Abi-Rafeh**  
*Clinical Assistant Professor, Psychiatry*  
B.S., American University of Beirut, 1983  
M.D., Universidad  
Tecnologica de Santiago, 1986

**Anthony A. Abouhanna**  
*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of South Florida, 1992

D.O., Nova Southeastern University  
College of Osteopathic Medicine, 2002

**Michael A. Abrahams**  
*Clinical Assistant Professor,  
Orthopedic Surgery*  
B.S., University of Bristol, 1970  
M.D., University of the West Indies, 1974

**Susan Abramson**  
*Visiting Assistant Professor, Research*  
Ph.D., University of Miami, 1994

**Jose J. Abreu**  
*Clinical Assistant Professor, Obstetrics  
and Gynecology*  
B.S., University of Miami, 1984  
M.D., Thomas Jefferson Medical College,  
1988

**John L. Abt**  
*Clinical Associate Professor,  
Family Medicine*  
B.A., Boston University, 1979  
D.O., New York College of Osteopathic  
Medicine, 1983

**Miguel A. Acevedo-Segui**  
*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of Puerto Rico, 1984  
M.D., University of Puerto Rico  
School of Medicine, 1988

**Felix N. Acholonu**  
*Clinical Assistant Professor, Obstetrics  
and Gynecology*  
B.S., City College of New York, 1976  
M.S., Columbia University, 1976  
M.D., State University of New York  
College of Medicine, 1981

**Ronald T. Ackerman**  
*Clinical Assistant Professor,  
Obstetrics and Gynecology*  
B.A., Hofstra University, 1974  
M.D., Medical Universidad de  
Guadalajara, 1978

**Rodolfo Acosta**  
*Adjunct Assistant Professor,  
Prosthodontics*

D.D.S., University of Valle, 1992

**Manuella Adrian**

*Adjunct Assistant Professor,  
Public Health*

B.A., McGill University, 1968

M.Sc., University of Pittsburgh, 1973

**Shino B. Aguilera**

*Clinical Assistant Professor,  
Dermatology*

B.S., University of California, 1993

D.O., Western University of Health  
Sciences, 1999

**Sultan S. Ahmed**

*Clinical Associate Professor,  
Family Medicine*

M.D., Dacca University, Bangladesh, 1978

P.A., Bayley Seton Hospital, 1988

**Jorge L. Ajuria**

*Clinical Assistant Professor, Nephrology*

B.A., University of Rochester, 1987

M.D., Temple University School of  
Medicine, 1998

**Alan B. Aker**

*Clinical Adjunct Instructor, Optometry*

M.D., New York Medical College, 1976

Ophthalmology, North Shore University  
Hospital, 1980

**Asfa S. Akhtar**

*Clinical Assistant Professor,  
Family Medicine*

B.S., University of Alabama, 1994

D.O., Nova Southeastern University  
College of Osteopathic Medicine, 2000

**Palghat M. Alamelu**

*Clinical Assistant Professor, Pediatrics*

M.D., University of Calcutta, 1969

D.C.H., University of Calcutta, 1973

D.T.C., Liverpool, 1982

**Lourdes A. Alamo**

*Clinical Assistant Professor, Pediatrics*

M.D., Ponce School of Medicine, 1995

**Arthur L. Albers**

*Clinical Assistant Professor, Urology*

B.A., University of South Florida, 1976

D.O., Philadelphia College of  
Osteopathic Medicine, 1980

**Oscar A. Alea**

*Clinical Assistant Professor, Pediatrics*

Premed, Miami Dade

Community College, 1982

M.D., Universidad

Central del Este, 1986

**Hassan Ali**

*Clinical Assistant Professor, Nephrology*

M.D., University of the West Indies, 1978

**Syed A. Ali**

*Clinical Assistant Professor, Pediatrics*

M.D., Dow Medical College, 1992

**Syed Imran Ali**

*Clinical Assistant Professor, Cardiology*

M.D., Dow Medical College, 1992

**Mary Alkire**

*Adjunct Faculty Member, Nursing*

B.S.N., Northern Michigan University,  
1973

M.S.N., University of Minnesota, 1978

Ed.D., University of Minnesota, 1999

**Joseph D. Allgeier**

*Clinical Assistant Professor,*

*Family Medicine*

B.S., St. Bonaventure University, 1990

D.O., Philadelphia College of  
Osteopathic Medicine, 1994

**Alina M. Alonso**

*Clinical Assistant Professor,*

*Preventive Medicine*

B.S., Barry University, 1978

M.D., Universidad Autonoma  
de Ciudad Juarez, 1984

**Noel Alonso**

*Clinical Assistant Professor, Pediatrics*

B.A., University of Miami, 1992

M.S., Barry University, 1994

M.D., St. George's University  
School of Medicine, 1998

**Raul Alonso**

*Clinical Assistant Professor, Cardiology*  
M.D., University of Miami School of  
Medicine, 1995

**Alexander H. Alperovich**

*Clinical Assistant Professor,*  
*Internal Medicine*  
M.D., Kaunas University  
Medical School, 1982

**Barnet I. Alpert**

*Clinical Associate Professor,*  
*Family Medicine*  
B.S., Brooklyn College, 1963  
D.O., Chicago College of  
Osteopathic Medicine, 1967

**Susan L. Alpert**

*Adjunct Clinical Hygienist Instructor,*  
*Periodontology, Division of Surgical*  
*Sciences*

**Carol Alterman**

*Adjunct Clinical Hygienist Instructor,*  
*Periodontology, Division of*  
*Surgical Sciences*  
A.S., Santa Fe Community College, 1982

**Donald H. Altman**

*Clinical Professor, Pediatrics*  
A.B., Washington University, 1946  
B.S., University of Missouri, 1948  
M.D., University of Tennessee, 1950

**Lynda Altman**

*Clinical Assistant Professor,*  
*Family Medicine*  
B.S., Adelphi University, 1980  
M.D., Ross University  
School of Medicine, 1986

**Raul A. Alvarez**

*Clinical Assistant Professor,*  
*Internal Medicine*  
M.D., Universidad de Cadiz, 1983

**Ricardo S. Alvarez**

*Clinical Assistant Professor, Obstetrics*  
*and Gynecology*  
M.D., Universidad Autonoma de  
Guadalajara, 1977

**Carl Amko**

*Clinical Assistant Professor, Surgery*  
M.D., Mahidol University, 1968

**Laura M. Amon**

*Adjunct Assistant Professor, Physician*  
*Assistant Studies*  
B.S./P.A., Saint Francis College, 1989  
M.S., Alderson-Broaddus College, 1995  
Fellow, American Academy  
of Physician Assistants

**Vibhuti A. Ansar**

*Clinical Assistant Professor, Family*  
*Medicine*  
M.D., American University of the  
Caribbean School of Medicine, 2001

**Maryellen Antonetti**

*Adjunct Assistant Professor,*  
*Physician Assistant Studies*  
*Adjunct Assistant Professor, Public Health*  
B.S./P.A., Nova Southeastern University  
College of Allied Health, 1996  
M.P.H., Nova Southeastern University  
College of Allied Health, 1996  
Fellow, American Academy  
of Physician Assistants

**Frances J. Aquino**

*Clinical Instructor, Internal Medicine*  
M.D., Cadiz University, 1984

**Alberto Aran**

*Clinical Associate Professor, Optometry*  
B.S., Spring Hill College, 1976  
M.D., Tulane University, 1982

**Jennifer Araya**

*Adjunct Instructor, Cariology and*  
*Restorative Dentistry,*  
*Division of Primary Care*  
D.M.D., Nova Southeastern University,  
2010

**Marc A. Arel**

*Clinical Assistant Professor, Pediatrics*  
M.D., University of Miami  
School of Medicine, 1977  
B.A., University of Miami, 1992

**Joseph J. Arena**

*Clinical Assistant Professor,  
Internal Medicine*

M.D., St. George's University  
School of Medicine, 1987

**Jorge A. Arenas**

*Adjunct Assistant Professor, Diagnostic  
Sciences, Division of Primary Care*  
D.M.D., Nova Southeastern University, 2006

**Dan Arnold**

*Clinical Assistant Professor,  
Pediatric Dentistry*

D.D.S., University of Kentucky  
College of Dentistry, 1968

M.S., University of Nebraska, 1970

**Frances Aronovitz**

*Adjunct Faculty Member, Nursing*

B.S.N., University of Texas, 1973

M.S., Florida International University, 1975

M.S.N., University of Miami, 1981

Ph.D., University of Miami, 1984

**Judith D. Aronson-Ramos**

*Clinical Assistant Professor, Pediatrics*

B.A., Dartmouth College, 1982

M.D., University of Miami School of  
Medicine, 1990

**Jose F. Arrascue**

*Clinical Assistant Professor, Nephrology*

M.D., Cayetano Medical University, 1973

**Steven L. Attermann**

*Clinical Assistant Professor,  
Internal Medicine*

B.S., Union College, 1979

D.O., University of Medicine and  
Dentistry of New Jersey, 1984

**Liliana M. Awan**

*Clinical Assistant Professor,  
Family Medicine*

M.D., Universidad Iberoamericano, 1998

**Glen K. Axelson**

*Clinical Instructor, Pathology*

B.S., Michigan State University, 1997

M.S., Barry University, 1999

D.O., Chicago College of Osteopathic  
Medicine, 2003

**Ardem M. Aydur**

*Clinical Assistant Professor,  
Internal Medicine*

M.D., Hacettepe University, 1992

**George P. Azar, Jr.**

*Clinical Assistant Professor,  
Pulmonary Medicine*

B.A., Villanova University, 1978

M.D., Ross University  
School of Medicine, 1984

**Hanan Azer**

*Adjunct Faculty,*

*Physician Assistant Studies*

A.A., Lehigh Carbon Community  
College, 1996

Pharm.D., Temple University, 2000

Consultant Pharm Degree, University of  
Florida, 2001

**Kara Bacchus**

*Clinical Assistant Professor, Optometry*

B.S., Stetson University, 1991

O.D., Southern College of Optometry, 1995

**Sergio Badel**

*Clinical Instructor, Psychiatry*

M.D., Universidad Del Norte, 2001

**Douglas M. Baird**

*Clinical Assistant Professor,  
Family Medicine*

D.O., Kirksville College of Osteopathic  
Medicine and Surgery, 1965

**Barbara Bajaj**

*Physical Therapy*

B.S. PT, Northeastern University, 1972

M.S. PT, University of Miami, 1994

**Matt Dane Baker**

*Adjunct Faculty Member, Health Science*

B.S., Drexel University, 1983

CT—Physician Assistant, Drexel  
University, 1983

B.A., Richard Stockton College, 1983

M.S., St. Joseph's University

D.H.Sc., Nova Southeastern University, 2007

**Cathy M. Balbin**

*Clinical Assistant Professor,  
Anesthesiology*

D.O., Southeastern University College of  
Osteopathic Medicine, 1987

**Gilda Baldwin**

*Adjunct Assistant Professor,  
Health Science*

M.M.S., Nova Southeastern  
University, 2002

D.H.Sc., Nova Southeastern  
University, 2006

**Emilio Balius**

*Clinical Assistant Professor, Optometry*

O.D., University of Houston  
College of Optometry, 1991

**Anaisys M. Ballesteros**

*Clinical Assistant Professor,  
Family Medicine*

B.S., Florida International University, 1994

D.O., Texas College of  
Osteopathic Medicine, 1999

**Pami L. Ball-Pella**

*Clinical Assistant Professor,  
Family Medicine*

B.S., Worcester State College, 1995

B.S.N., Pace University, 2000

M.S.N., Pace University, 2001

**Stephen Balshi**

*Adjunct Instructor, Prosthodontics,  
Division of Primary Care*

M.S., Drexel University, 2005

**Thomas Balshi**

*Adjunct Professor, Prosthodontics,  
Division of Primary Care*

D.D.S., Temple University, 1972

**Venkataraman Balu**

*Clinical Assistant Professor, Cardiology*

M.D., University of Madras  
School of Medicine, 1966

**Roxanne Bamond**

*Clinical Assistant Professor,  
Family Medicine*

B.A., University of Florida, 1984

M.S., Nova Southeastern University, 1994

Ph.D., Nova Southeastern University, 2000

**Ahmed H. Barhoush**

*Clinical Assistant Professor, Obstetrics  
and Gynecology*

M.D., University of Cairo, 1966

**Elizabeth J. Barice**

*Clinical Assistant Professor,  
Preventive Medicine*

*Adjunct Assistant Professor, Public Health*  
B.S., University of Florida, 1963

M.D., Stanford University, 1976

M.P.H., Harvard University, 1980

**Douglas H. Barlow**

*Clinical Assistant Professor, Pediatrics*

B.A., Amherst College, 1984

M.D., New York University, 1989

**Luis Barreras**

*Clinical Assistant Professor,  
Hematology/Oncology*

B.S., University of Florida, 1976

M.D., University of Miami, 1981

**Luis F. Barroso**

*Clinical Assistant Professor,  
Pulmonary Medicine*

B.S., Havana University, 1957

D.O., College of Osteopathic Medicine  
and Surgery, 1969

**Terrence J. Barry**

*Clinical Assistant Professor,  
Orthopedic Surgery*

A.B., Harvard College, 1952

M.D., Cornell University  
Medical College, 1963

**Nabil A. Barsoum**

*Clinical Associate Professor,  
Family Medicine*

M.D., Cairo University, 1972

**Hal J. Bashein**

*Clinical Assistant Professor, Urology*

B.S., University of Georgia, 1981

D.O., Southeastern University  
College of Osteopathic Medicine, 1986



**Alan S. Bassin**

*Clinical Assistant Professor, Surgery*

B.A., Vanderbilt University, 1989

M.D., University of Miami

School of Medicine, 1994

**Dipesh Batra**

*Clinical Assistant Professor, Pediatrics*

M.D., Government Medical

College and Hospital, 1994

**Patricia A. Baumann**

*Clinical Assistant Professor,*

*Orthopedic Surgery*

B.S., Cornell University, 1987

M.S., University of Miami, 1990

D.O., Nova Southeastern University

College of Osteopathic Medicine, 1994

**Michael W. Bays**

*Clinical Assistant Professor,*

*Internal Medicine*

B.S., Ferris State University, 1978

D.O., Michigan State University, 1986

**John Bazos**

*Clinical Assistant Professor,*

*Pediatric Dentistry*

D.M.D., Temple University

School of Dentistry, 1978

Thomas Balshi

Adjunct Professor, Prosthodontics, Division  
of Primary Care

D.D.S., Temple University, 1972

**David Begleiter**

*Clinical Instructor, Family Medicine*

M.D., State University of New York

Medical Center, 2003

**Carlos Bejar**

*Clinical Assistant Professor, Nephrology*

M.D., Universidad Central del Este, 1987

**Lorena Bejar**

*Clinical Assistant, Optometry*

O.D., Nova Southeastern University, 2004

**Francisco E. Belette**

*Clinical Assistant Professor,*

*Hematology/Oncology*

B.S., Haverford College, 1982

M.D., University of Illinois, 1986

**Laura E. Bell**

*Clinical Instructor, Family Medicine*

B.S., St. Leo's College, 1982

M.S., University of Southern

California, 1994

M.P.A., University of Florida, 2000

**Michael D. Bell**

*Clinical Assistant Professor, Surgery*

B.A., Cornell University, 1981

M.D., Dartmouth Medical School, 1985

**Roberta Benefield**

*Clinical Assistant Professor, Family*

*Medicine*

ARNP, University of Miami, 1977

**Alyn L. Benezette**

*Clinical Assistant Professor, Neurology*

B.S., Michigan State University, 1978

D.O., Michigan State University College of

Osteopathic Medicine, 1981

**Shaughn C. Bennett**

*Clinical Assistant Professor,*

*Family Medicine*

B.S., University of Florida, 1974

M.S., Florida International University, 1982

D.O., Southeastern University

College of Osteopathic Medicine, 1986

**Robert L. Bentz II**

*Clinical Associate*

*Professor, Ophthalmology*

B.S., Ohio State University, 1974

D.O., Philadelphia College of

Osteopathic Medicine, 1978

**Don H. Bercuson**

*Clinical Assistant Professor,*

*Internal Medicine*

B.S., Northwestern University, 1971

M.D., University of Miami

School of Medicine, 1975

**Stephen Berger**

*Adjunct Assistant Professor, Cariology*

*and Restorative Dentistry*

D.D.S., Georgetown University, 1973

**Eric S. Berke**

*Clinical Assistant  
Professor, Internal Medicine*  
M.D., University of Michigan, 1976

**Charles Berlin**

*Adjunct Professor, Audiology*  
B.A., Brooklyn College  
M.S., Brooklyn College  
Ph.D., Brooklyn College

**Arthur L. Berman**

*Clinical Instructor, Internal Medicine*  
B.A., Washington and  
Jefferson College, 1977  
D.O., Kirksville College of  
Osteopathic Medicine, 1981

**Jodie Berman**

*Adjunct Faculty, Health Science*  
B.A., University of  
Central Florida, 1998  
M.S., Nova Southeastern University, 2003

**Stuart A. Berman**

*Adjunct Faculty, Endodontics*  
D.D.S., Fairleigh Dickinson University, 1966  
Certificate, Endodontics, Columbia  
University, 1972

**Ernest G. Bertha**

*Clinical Associate Professor, Pediatrics*  
B.A., Rutgers College, 1978  
M.D., Far Eastern University, 1984  
M.B.A., University of South Florida, 1996

**Sandra Bertman**

*Clinical Associate Professor,  
Medical Humanities*  
B.A., Vassar College, 1958

Ed.M., Boston University, 1964  
Ph.D., The Union Institute, 1988

**Charles A. Bevis**

*Clinical Assistant Professor,  
Orthopedic Surgery*  
B.S., Florida State University, 1963  
M.D., Bowman Gray  
School of Medicine, 1969

**Anthony Bezerra**

*Adjunct Instructor, Periodontology,  
Division of Surgical Sciences*  
D.D.S., University of Mexico Americana  
del Norte, 2000

Certificate in Dental Medicine,  
Nova Southeastern University, 2007

**Hetel Bhakta**

*Clinical Instructor, Optometry*  
B.S. University of Manchester, UK, 2003  
O.D. New England College of Optometry,  
2008

**Michael M. Bibliowicz**

*Clinical Assistant Professor,  
Otorhinolaryngology*  
B.S., University of Florida, 1979  
D.O., Ohio University College of  
Osteopathic Medicine, 1984

**Daniel R. Bieda**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., University of Washington, 1987  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1997

**Tony Bien-Aime**

*Clinical Assistant Professor,  
Family Medicine*  
M.D., State University of Haiti, 1983

**Philippe A. L. Bilger**

*Adjunct Assistant Professor,  
Public Health*  
B.S., Emory University, 1977  
D.D.S., Emory University  
School of Dentistry, 1981  
M.P.H., University of Miami  
School of Medicine, 1991

**David N. Bimston**

*Clinical Assistant Professor, Surgery*  
B.A., Washington University, 1988  
M.D., New York University  
School of Medicine, 1992

**Benham Birgani**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., The Union Institute, 1988

D.O., Southeastern University  
College of Osteopathic Medicine, 1993

**Allan J. Birnbaum**

*Clinical Assistant Professor,  
Internal Medicine*

B.A., Rutgers State University, 1975  
D.O., College of Osteopathic  
Medicine and Surgery, 1979

**Wayne Bizer**

*Clinical Professor, Ophthalmology*

B.A., University of Louisville, 1966  
D.O., Chicago College of  
Osteopathic Medicine, 1972  
Fellow, American Osteopathic  
College of Ophthalmology

**Eugene Blanck**

*Clinical Assistant Professor,  
Oral and Maxillofacial Surgery*

D.D.S., University of Pennsylvania, 1959

**Jonathan Bloch**

*Clinical Assistant*

*Professor, Diagnostic Sciences*

D.M.D., Washington University  
School of Dental Medicine, 1985

**Juergen H. Bludau**

*Clinical Assistant Professor,  
Internal Medicine*

B.S., Ursinus College, 1982  
M.D., The Royal College  
of Surgeons, 1987

**Barry M. Blumenthal**

*Clinical Assistant Professor,  
Family Medicine*

B.S., Touro College, 1978  
Ph.D., Columbia Pacific University, 1984  
D.O., Nova Southeastern University, 1991

**Kevin M. Boehm**

*Clinical Instructor, Family Medicine*

B.S., Michigan State University, 1997  
M.S., Barry University, 1999  
D.O., Nova Southeastern University, 2005

**David Bohorquez**

*Clinical Assistant Professor,  
Family Medicine*

B.S., Farleigh Dickinson University, 1990  
D.O., Philadelphia College of Osteopathic  
Medicine, 1997

**Edgar Bolton**

*Clinical Professor,  
Pulmonary Medicine*

B.S., Central Michigan University, 1965  
D.O., Philadelphia College  
of Osteopathic Medicine, 1969

**Robert L. Boltuch**

*Clinical Assistant Professor,  
Family Medicine*

B.A., Duke University, 1980  
D.O., New England College  
of Osteopathic Medicine, 1984

**Fortuna Borrego**

*Adjunct Faculty Member, Nursing*

B.S.N., Florida International  
University, 1997  
M.S.N., University of Phoenix, 2001

**Steven Borzak**

*Clinical Associate Professor, Cardiology*

A.B., Oberlin College, 1980  
M.D., University of Illinois  
College of Medicine, 1984

**Kenneth Boyle**

*Clinical Assistant Professor, Optometry*

B.S., University of Florida, 1984  
M.B.A., University of Florida, 1989  
O.D., Nova Southeastern University  
College of Optometry, 1994

**Gabriela Bozutti**

*Adjunct Instructor, Prosthodontics,  
Division of Primary Care*

D.D.S., University of Buenos Aires, 1994  
Certificate in Prosthodontics,  
Nova Southeastern University, 2009

**Bradley J. Bradford**

*Clinical Professor, Pediatrics*

B.S., Fordham University, 1968  
M.D., University of Maryland  
School of Medicine, 1972

**Howard Braverman**

*Clinical Associate Professor, Optometry*

B.S., University of Miami, 1968  
O.D., University of Houston, 1972

**Stanley Braverman**

*Clinical Associate Professor, Optometry*  
B.S., University of Miami, 1968  
M.D., University of Miami  
School of Medicine, 1972

**Thomas Brickenden**

*Adjunct Professor, Sociobehavioral and  
Administrative Pharmacy*  
M.B.A., University of Miami, 1981  
J.D., University of Miami, 1998

**Ginge Brien**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., Florida International  
University, 1990  
M.D., Sackler School of Medicine, 1995

**Richard J. Brietstein**

*Clinical Professor, Geriatrics*  
B.S., Long Island University, 1967  
D.P.M., Ohio College of Podiatric  
Medicine, 1971

**Kevin Broome**

*Clinical Assistant, Optometry*  
O.D., Nova Southeastern University, 1998

**Karl S. Brot**

*Clinical Assistant Professor,  
Family Medicine*  
M.D., University of Toronto, 1977

**Marshall Brothers**

*Adjunct Instructor, Community  
Dentistry, Division of  
Developmental Sciences*  
D.D.S., New York University, 1954

**Glennon A. Brown**

*Clinical Assistant Professor,  
Anesthesiology*  
B.S., University of Florida, 1991  
M.D., State University of New York  
Health Science Center, 1995

**Juanita M. Brown**

*Clinical Assistant  
Professor, Family Medicine*  
B.S., Florida Southern College, 1982  
D.O., Southeastern University  
College of Osteopathic Medicine, 1991

**William E. Bruno, Jr.**

*Clinical Associate Professor, Pediatrics*  
B.S., University of Miami, 1964  
M.D., University of Miami  
School of Medicine, 1968

**John R. Bucholtz**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., Washington and Jefferson  
College, 1978  
D.O., Philadelphia College of  
Osteopathic Medicine, 1982

**Efren Buitrago**

*Clinical Assistant Professor*  
M.D., Universidad Nacional  
De Colombia, 1989

**Allan Burch**

*Adjunct Assistant Professor,  
Community Dentistry*  
D.D.S., Medical College  
of Virginia, 1967

**Jon P. Burdzy**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., Purdue University, 1993  
D.O., Nova Southeastern University, 1998

**Janine E. Burgher-Jones**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Georgia State University, 1982  
M.D., Medical College of Georgia, 1986

**Cathy A. Burnweit**

*Clinical Associate Professor, Surgery*  
B.A., Dartmouth College, 1977  
M.D., Harvard Medical School, 1981

**Lisa L. Burroughs**

*Clinical Assistant Professor, Pediatrics*  
B.S., University of the Virgin Islands, 1993

M.D., Boston University  
School of Medicine, 1998

**Darin L. Bush**

*Clinical Assistant Professor,  
Family Medicine*

B.S., University of New England, 1995  
D.O., University of New England College  
of Osteopathic Medicine, 2000

**Rathna Bushan**

*Clinical Assistant Professor, Pediatrics  
and Rural Medicine*

M.D., University of Kerala, 1972

**Louis J. Butera**

*Clinical Assistant Professor, Neurology*

B.S., Temple University, 1967  
D.O., Philadelphia College of  
Osteopathic Medicine, 1978

**Mark Butler**

*Adjunct Faculty, Cariology and  
Restorative Dentistry*

D.D.S., New York University, 1966

**Alberto Caban-Alemay**

*Clinical Assistant Professor, Pediatrics*

M.D., Universidad Central del Este, 1980

**Angel R. Cadig**

*Clinical Assistant Professor, Pediatrics*

B.S., The Ohio State University, 1972  
M.D., University of Zaragoza, 1979

**Ann Calabro-Raimondi**

*Clinical Assistant Professor,  
Internal Medicine*

B.S., St. John's University, 1982  
M.D., New York University  
School of Medicine, 1986

**George L. Caldwell, Jr.**

*Clinical Assistant Professor,  
Orthopedic Surgery*

M.D., Bowman Gray  
School of Medicine, 1988

**Richard H. Callari**

*Clinical Assistant Professor,  
Otolaryngology*

B.A., Boston University, 1981

M.D., Medical College of Virginia, 1985

**Aldo A. Calvo**

*Clinical Assistant Professor,  
Family Medicine*

B.A., Florida International University, 1992  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1996

**Pablo J. Calzada**

*Adjunct Associate Professor,  
Public Health*

D.O., Nova Southeastern University, 1993  
M.P.H., University of South Florida, 2001

**Eric S. Cameron**

*Clinical Assistant Professor, Pediatrics*

B.A., Washington Square College, 1967  
M.D., State University of New York, 1971

**Maureen Campbell**

*Clinical Assistant Professor,  
Family Medicine*

B.A., University of South Florida, 1985  
D.O., Southeastern University  
College of Osteopathic Medicine, 1986

**Shawn P. Cannon**

*Clinical Assistant Professor, Internal  
Medicine*

B.S., New York Institute of Technology, 1988  
D.O., New York College of Osteopathic  
Medicine, 1992

**Robert A. Cano**

*Clinical Assistant Professor,  
Family Medicine*

B.S., Florida A & M University, 1987  
D.O., Nova Southeastern University, 1995

**Ronald Cantor**

*Adjunct Assistant Professor,  
Community Dentistry*

D.D.S., Medical College of Virginia, 1960

**G. Patricia Cantwell**

*Clinical Professor, Pediatrics*

B.S., College of St. Elizabeth, 1974  
M.D., Wake Forest University, 1981

**Mariaelena P. Caraballo**

*Clinical Assistant Professor,  
Family Medicine*

B.S., University of Miami, 1981  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1998

**Angelica Cardenas Mansur**

*Adjunct Instructor, Cariology and  
Restorative Dentistry,  
Division of Primary Care*

D.M.D., Nova Southeastern  
University, 2003

**Lyssette Cardona**

*Adjunct Assistant Professor,  
Public Health*

B.S., University of Puerto Rico, 1979  
M.D., University of Puerto Rico Medical  
School, 1983  
M.P.H., Tulane University School of  
Public Health and Tropical Medicine, 1988  
M.H.S.A., Barry University, 2005

**Stephanie A. Carlin**

*Clinical Assistant Professor, Pediatrics*

B.A., College of the Holy Cross, 1996  
D.O., Nova Southeastern University, 2002

**Cesar W. Carralero**

*Clinical Assistant Professor,  
Family Medicine*

B.S., University of Miami, 1988  
D.O., Nova Southeastern University, 1999

**Dominic Carreira**

*Clinical Assistant Professor,  
Orthopedic Surgery*

B.A., University of Notre Dame, 1995  
M.D., University of Illinois, 2000

**Maria J. Carreon**

*Clinical Assistant Professor,  
Infectious Disease*

B.S., University of the Philippines, 1979  
M.D., University of the Philippines  
College of Medicine, 1983

**Eddy H. Carrillo**

*Clinical Assistant Professor, Surgery*

M.D., La Universidad de San Carlos, 1977

**Ingrid D. Carter**

*Clinical Assistant Professor,  
Sports Medicine*

B.S., Florida State University, 1995  
D.O., Western University Health Sciences  
College of Osteopathic Medicine, 2002

**Alberto A. Casaretto**

*Clinical Assistant Professor,  
Internal Medicine*

B.A., Tufts University, 1991  
M.D., Tufts University  
School of Medicine, 1995

**James H. Caschette**

*Clinical Associate Professor,  
Otorhinolaryngology*

B.A., University of Buffalo, 1959  
D.O., Philadelphia College  
of Osteopathic Medicine, 1963

**Terrence D. Case**

*Adjunct Professor, Vascular Sonography*  
P.A., Dartmouth Medical School, 1974

B.A., Goddard College, 1979  
M.Ed., Harvard University, 1980  
Fellow, Society of Vascular Ultrasound, 2007

**Cheryl L. Case-Diaz**

*Clinical Assistant Professor,  
Internal Medicine*

M.D., University of Miami, 2001

**Patrick Casimir**

*Adjunct Instructor, Biomedical  
Informatics*

B.S., Nova Southeastern University, 2001  
M.S., Nova Southeastern University, 2010

**Thomas A. Castillenti**

*Clinical Assistant Professor, Surgery*

B.A., Washington and Jefferson  
College, 1976

D.P.M., Illinois College of  
Podiatric Medicine, 1980

D.O., Chicago College of  
Osteopathic Medicine, 1984

**Robert R. Castillo**

*Clinical Instructor, Psychiatry*

B.A., National Institute of Panama, 1958

M.D., National University of  
Mexico School of Medicine, 1968

**Joseph D. Catino**

*Clinical Assistant Professor, Surgery*  
M.D., American University of the  
Caribbean, 1999

**Jaroslav Cegielski**

*Adjunct Faculty, Cariology and  
Restorative Dentistry*  
B.S., University of Nebraska, 1996  
D.M.D., Nova Southeastern University, 2002

**Daniel S. Cervonka**

*Adjunct Faculty, Health Science*  
B.S., Roger Williams College 1987  
B.S., Yale University School of  
Medicine 1989  
C.A.S., Nova Southeastern University, 1998  
M.P.A.S., University of Nebraska, 2003  
D.H.Sc., Nova Southeastern University, 2007

**Kerry E. Chamberlain**

*Clinical Assistant Professor,  
Hematology/Oncology*  
B.S., Oral Roberts University, 1979  
D.O., Kirksville College of  
Osteopathic Medicine, 1983

**Joseph C. Chan**

*Clinical Associate Professor,  
Infectious Disease*  
B.A., University of California  
College of Letters and Sciences, 1973  
M.D., University of California  
School of Medicine, 1977

**Igor Chaplik**

*Clinical Assistant Professor*  
*Dermatology*  
B.S., University of Miami, 1994  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 2000

**Ronnie Charin**

*Adjunct Hygienist, Periodontology*  
R.D.H., Fairleigh Dickinson  
University, 1967

**Jean-Baptiste L. Charlot**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*  
M.D., Universite D'Etat D'Haiti, 1969

**Hope M. Chema**

*Clinical Assistant Professor, Family  
Medicine*  
M.D., Far Eastern University, 1989

**Yat-Min Chen**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*  
M.D., National Taiwan University, 1981

**Eric S. Chenven**

*Clinical Assistant Professor, Urology*  
B.A., Brandeis University, 1992  
M.D., Albert Einstein College of Medicine,  
1996

**C. Lynn Chevalier**

*Adjunct Faculty Member, Health Science*  
B.S., College of St. Rose, 1977  
M.S., The State University at Albany, 1980  
Graduate Certificate in Public Health,  
University of North Carolina—Chapel  
Hill, 2001  
M.P.H., University of Massachusetts—  
Amherst, 2004  
D.H.Sc., Nova Southeastern University, 2007

**Eva Chiang**

*Adjunct Instructor, Cariology and  
Restorative Dentistry*  
D.D.S., Havana University, Cuba, 1991

**Michael A. Chizner**

*Clinical Professor, Cardiology*  
B.A., New York University, 1970  
M.D., Cornell University Medical  
College, 1974

**Eun Choi**

*Adjunct Assistant Professor, Oral and  
Maxillofacial Radiology, Diagnostic  
Sciences, Division of Primary Care*  
M.S.D., Seoul National University (South  
Korea), 1995  
D.D.S., Nova Southeastern University, 2009

**Michael P. Choi**

*Clinical Assistant Professor, Surgery*  
B.S., Tulane University, 1993  
D.O., Nova Southeastern University, 1999

**Rajiv R. Chokshi**

*Clinical Assistant Professor,  
Internal Medicine*  
M.B.B.S., B.J. Medical College, 1976

**Nicholas M. Cifelli**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., Rutgers University, 1964  
M.D., George Washington  
University, 1968

**Ari Ciment**

*Clinical Assistant Professor, Internal  
Medicine*  
M.D., Rush University Medical College,  
2001

**Stephen J. Cina**

*Clinical Professor, Pathology*  
B.A., Johns Hopkins University, 1988  
M.D., Vanderbilt University School of  
Medicine, 1992

**Frederick W. Clarkson**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of Florida, 1966  
D.O., Kirksville College of  
Osteopathic Medicine, 1970

**Kevin A. Clauson**

*Adjunct Associate Professor,  
Biomedical Informatics*  
B.S., University of Tennessee, 1995  
Pharm.D., University of Tennessee, 2000

**Romulo Clavelo**

*Clinical Instructor, Family Medicine*  
M.D., Instituto Superior Ciencias, 1986

**Joshua Cleland**

*Adjunct Faculty, Ph.D.  
Program, Physical Therapy*  
B.S., Notre Dame College, 1998  
M.P.T., Notre Dame College, 2000  
Ph.D., Nova Southeastern University, 2006

**Jamie L. Clute**

*Clinical Assistant Professor, Pediatrics*  
B.S., Baldwin-Wallace College, 1995  
M.D., Medical University of Ohio, 1999

**William L. Cody**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*  
B.S., Memphis State University, 1972  
M.D., University of Tennessee  
Center of Health Sciences, 1982

**Julio Coello**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*  
B.M.H., Ciclo Educativo Tarquill, 1967  
M.D., Saint James Catholic  
University of Guayaquil, 1975

**Jules J. Cohen**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., Temple University, 1961  
D.O., Philadelphia College  
of Osteopathic Medicine, 1965

**Marla Cohen**

*Adjunct Clinical Hygienist Instructor,  
Periodontology,  
Division of Surgical Sciences*  
A.S. Dental Hygiene, Miami Dade School  
of Dental Hygiene, 1976

**Robert A. Cohen**

*Clinical Assistant Professor,  
Family Medicine*  
D.O., Des Moines University College of  
Osteopathic Medicine, 1980  
B.S., University of Pittsburgh, 1997

**Steven D. Cohen**

*Clinical Assistant Professor,  
Internal Medicine*  
M.D., Loyola Stritch  
School of Medicine, 1974

**Steven W. Cohen**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of Florida, 1987  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1991



**Victoria Coleman-Miller**

*Clinical Assistant Professor,  
Preventive Medicine*

B.A., Marymount College, 1973

J.D., Nova University, 1987

**Douglas Colman**

*Clinical Assistant Professor,  
Family Medicine*

B.S., Michigan State University, 1975

D.O., Des Moines College of  
Osteopathic Medicine & Surgery, 1978

**Viviana Colmegna**

*Clinical Assistant Professor, Psychiatry*  
M.D., National University of La Plata, 1982

**Salvatore Colombo**

*Adjunct Instructor, Cariology and  
Restorative Dentistry*

D.M.D., Nova Southeastern University, 2010

**Felton E. Combest, Jr.**

*Clinical Instructor, Family Medicine*

B.S., Delta State University

M.D., University of Mississippi Medical  
Center, 1978

**Robert Comperatore**

*Clinical Associate Professor,  
Surgery*

M.D., University of Buenos Aires, 1971

**Sara Connolly**

*Clinical Assistant Professor, Pediatrics*

B.S., University of Florida, 1998

M.D., University of Florida College of  
Medicine, 2002

**Alex R. Constantinescu**

*Clinical Associate Professor, Pediatrics*

M.D., Medical Institute Timisoara, 1985

**Jennifer M. Contin**

*Clinical Assistant Professor,  
Family Medicine*

M.D., Instituto Universitario de  
Ciencias, 1998

**Robert B. Contrucci**

*Clinical Associate Professor,  
Otorhinolaryngology*

B.S., St. John's University, 1976

D.O., Philadelphia College of Osteopathic  
Medicine, 1980

**Gail Austin Cooney**

*Clinical Assistant Professor, Neurology*

B.A., Wesleyan University, 1974

M.D., Mayo Medical School, 1978

**Joseph C. Corcoran**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*

B.S., University of Florida, 1981

D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1986

**Frederick A. Corder**

*Clinical Assistant Professor,  
Internal Medicine*

B.S., Henderson State University, 1989

M.D., University of Arkansas College of  
Medical Sciences, 1994

**Jorge C. Coro**

*Adjunct Assistant Professor,  
Orthodontics*

B.S., University of Miami, 1975,

D.M.D., University of Florida, 1979

M.S., University of Tennessee, 1981

Diplomate, American Board of  
Orthodontics

**Loreta Costa**

*Adjunct Faculty, Health Science*

B.A., Florida Atlantic  
University, 2001

M.S., Nova Southeastern University, 2003

**Arthur M. Cowden II**

*Clinical Assistant Professor,  
Family Medicine*

D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1985

**Linda S. Cox**

*Clinical Associate Professor,  
Internal Medicine*

B.A., Boston University  
College of Liberal Arts, 1978

M.D., Northwestern University  
School of Medicine, 1985

**Shawn H. Cox**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Oakwood College, 1995  
M.D., University of Tennessee, 1999

**Eridia Coy**

*Adjunct Faculty Member, Nursing*  
B.S.N., Florida International  
University, 1990  
M.S.N., University of Phoenix, 2000

**Richard A. Crocco**

*Clinical Assistant Professor, Psychiatry*  
B.S., Ohio State University, 1959  
M.D., Ohio State University  
Medical School, 1963

**Brian J. Cross**

*Clinical Assistant Professor,  
Orthopedic Surgery*  
B.S., Westminster College, 1992  
D.O., Ohio University College of  
Osteopathic Medicine, 1996

**Stella Cross**

*Clinical Assistant Professor,  
Family Medicine*  
A.D.N., Union University, 1971  
B.S.N., University of Alabama, 1975  
M.S.N., Medical College of Georgia, 1977  
Ph.D., Southwest University, 1990

**William T. Crow**

*Clinical Professor, Family Medicine*  
D.O., Texas College of Osteopathic  
Medicine, 1987

**Marissa O. Cruz**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., University of Wisconsin, 1999  
M.P.H., University of Illinois, 2001  
D.O., Arizona College of Osteopathic  
Medicine, 2005

**Robert S. Csere**

*Clinical Assistant Professor, Surgery*  
A.B., Rutgers College, 1972  
D.O., University of Health Sciences  
College of Osteopathic Medicine, 1976

**Marc E. Csete**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., Boston University, 1979  
M.D., University of Miami  
School of Medicine, 1983

**Robert Cueli**

*Clinical Assistant Professor, Nephrology*  
M.D., Autonoma University, 1982

**Ramon Cuevas-Trisan**

*Clinical Assistant Professor,  
Osteopathic Principles and Practice*  
B.S., Tulane University School of  
Engineering, 1988  
M.D., University of Puerto Rico School of  
Medicine, 1992

**Robert F. Cullen, Jr.**

*Clinical Associate Professor, Pediatrics*  
B.A., College of the Holy Cross, 1959  
M.D., Seton Hall College of Medicine and  
Dentistry, 1963

**Beatriz Cunill-DeSautu**

*Clinical Assistant Professor, Pediatrics*  
B.S., Florida International University,  
1996  
M.D., University of Medicine and  
Dentistry of New Jersey, 2001

**Linda Cupo**

*Adjunct Faculty Member, Nursing*  
B.S.N., Florida International University,  
1995  
M.S.N. /A.R.N.P, Florida International  
University, 1997

**Denice C. Curtis**

*Adjunct Faculty, Health Science*  
D.M.D., Central University of Quito,  
Ecuador, 1980  
M.P.H., University of Kansas Medical  
Center, 1996

**Mike Cusnir**

*Clinical Assistant Professor,  
Hematology/Oncology*  
M.D., Pontificia Universidad  
Javeriana, 1994

**Albert Dabbah**

*Clinical Assistant Professor, Surgery*  
B.A., University of Maryland, 1982  
M.S., University of Maryland, 1984  
M.D., University of Maryland  
School of Medicine, 1987

**Nilesh Dalal**

*Clinical Assistant Professor,  
Periodontology*  
D.M.D., Nova Southeastern  
University, 2000

**Michael T. Dalley**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., State University of New York, 1998  
D.O., University of Medicine and  
Dentistry of New York, 2002

**Harold L. Dalton**

*Clinical Assistant Professor,  
Physical Medicine and Rehabilitation*  
B.S., University of Florida, 1986  
M.S., University of Florida, 1988  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1996

**Margarette Damas**

*Clinical Instructor, Family Medicine*  
B.A., New York University, 1990  
D.O., Georgetown University School of  
Medicine, 1995

**Roscoe G. Dandy**

*Adjunct Professor, Public Health*  
B.A., California State University, 1970  
M.P.H., University of Pittsburgh, 1974  
Dr.P.H., University of Pittsburgh, 1981

**John D. D'Angelo**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Muhlenberg College, 1996  
D.O., Philadelphia College of Osteopathic  
Medicine, 2001

**Randy Danielsen**

*Adjunct Faculty, Health Science*  
B.S., University of Utah, 1978

M.P.A.S., University of Nebraska, 1997  
Ph.D., The Union Institute, 2002

**Brad L. Dansky**

*Clinical Assistant Professor, Psychiatry*  
B.S., University of Connecticut, 1980  
M.D., University of the Health Sciences  
School of Medicine, 1984

**Douglas W. David**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Ohio State University, 1977  
M.S., Ohio State University, 1980  
D.O., Ohio University College of  
Osteopathic Medicine, 1987

**Edward Davis**

*Clinical Assistant Professor, Neurology*  
B.S., Purdue University, 1972  
D.O., Philadelphia College of  
Osteopathic Medicine, 1978

**Jean W. Davis**

*Adjunct Faculty, Health Science*  
B.S., Rutgers University, 1992  
M.S., Rutgers University, 1994  
Ed.D., Nova Southeastern University, 1998

**Jeanmarie Davis**

*Clinical Assistant Professor, Optometry*  
O.D., Nova Southeastern University, 2001

**Lance G. Davis**

*Clinical Instructor, Pathology*  
B.A., Chaminade University, 1978  
M.D., American University  
of the Caribbean, 1987

**Robert Davis**

*Clinical Assistant Professor, Optometry*  
O.D., Pennsylvania College  
of Optometry, 1970

**Mark H. Dawson**

*Clinical Assistant Professor,  
Family Medicine*  
M.D., Louisiana State University  
School of Medicine, 1976  
M.B.A., Louisiana State University, 1995

**Juan M. D'Brot**

*Clinical Assistant Professor,  
Pulmonary Medicine*  
Cayetano Heredia University  
Medical School, 1980

**Antonio F. DeFilippo**

*Clinical Assistant Professor, Psychiatry*  
B.S., University of Miami, 1987  
M.D., University of South Florida College  
of Medicine, 1991

**Margarita Delagado**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of Central Florida, 1990  
D.O., Des Moines University College of  
Osteopathic Medicine, 1995

**Robert P. DeLaura**

*Adjunct Associate Professor,  
Biomedical Informatics*  
B.S., Michigan State University, 1980  
M.B.A., University of Dallas, 1986  
D.B.A., Nova Southeastern University, 2001

**Hector M. Delgado**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Florida International  
University, 1985  
D.O., Southeastern University  
College of Osteopathic Medicine, 1990

**Pallavi B. Deliwala**

*Clinical Assistant Professor, Pediatrics*  
M.D., Seth G.S. Medical College, 1969

**Jessica M. De Leon**

*Adjunct Assistant Professor,  
Public Health*  
B.S., University of Florida, 1989  
M.A., University of Florida, 1992  
Ph.D., University of Florida, 2000

**Alejandro Del Valle**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., Boston University Sargent College of  
Allied Health Profession, 1997  
D.O., New York College of Osteopathic  
Medicine, 2001

**Brian DenBeste**

*Clinical Assistant Professor, Optometry*  
O.D., Illinois College of Optometry, 1980

**William Denton**

*Adjunct Instructor, Optometry*  
O.D., Michigan College of  
Optometry, 2000

**Vladimir Derenoncourt**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of Miami, 1989  
D.O., Nova Southeastern University, 1996

**James A. Derrenbacker, Jr.**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., University of South Florida, 1980  
M.S., University of South Florida, 1983  
D.O., Texas College of  
Osteopathic Medicine, 1990

**Alfred A. DeSimone**

*Clinical Assistant Professor, Orthopedic  
Surgery, Sports Medicine*  
M.D., University of Miami, 1989

**Lesly Desrouleaux**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*  
B.S., City University of New York, 1977  
M.D., Albert Einstein College  
of Medicine, 1981

**Christopher DeTure**

*Clinical Assistant Professor,  
Periodontology*  
D.M.D., University of Florida, 1996

**Karl Marx Dhana**

*Clinical Assistant Professor,  
Internal Medicine*  
M.D., University of Miami School of  
Medicine, 1988  
B.S., Florida International University, 1993

**Jorge L. Diaz**

*Clinical Assistant Professor,  
Internal Medicine*  
B.A., Florida International University, 1988  
M.S., Florida International University, 1991  
D.O., Nova Southeastern University, 1996

**Leslie E. Diaz**

*Clinical Assistant Professor,  
Internal Medicine*  
M.D., Universidad Central del Este, 1985

**Maria A. Diaz**

*Clinical Instructor, Internal Medicine*  
B.S., Barry University, 1988  
Pharm.D., University of Florida, 1992  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1998

**Tony Diaz**

*Clinical Instructor, Orthopedic Surgery*  
B.A., University of Miami, 1988  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1992

**Brucha L. Dickenson**

*Clinical Assistant Professor, Pathology*  
M.D., Universidad Nacional  
de Colombia, 1977

**Robert L. DiGiovanni**

*Clinical Assistant Professor,  
Internal Medicine*  
B.A., The Johns Hopkins University, 1978  
D.O., Kirksville College of  
Osteopathic Medicine, 1982

**Allan J. Dinnerstein**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*  
B.S., Tufts University, 1960  
M.D., Albert Einstein College  
of Medicine, 1964

**Oliver R. DiPietro**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., McGill University, 1976  
M.D., University of Sherbrooke Medical  
School, 1980

**Steve Dischiavi**

*Adjunct Faculty, Physical Therapy*  
B.S., Slippery Rock University, 1995  
M.S., PT, State University of New York  
Health Science Center at Syracuse, 1997

**Jordan J. Ditchek**

*Clinical Assistant Professor, Radiology*

B.S., Massachusetts Institute of  
Technology, 1991

M.D., Cornell University  
Medical College, 1995

**Karen Dodge**

*Clinical Assistant Professor, Preventive  
Medicine*  
B.S., Florida Atlantic University, 1991  
M.S.W., Florida International  
University, 1993  
Ph.D., Florida International  
University, 1997

**Michelle A. Doldren**

*Adjunct Assistant Professor,  
Public Health*  
B.S., Howard University, 1999  
M.P.H., University of South Florida, 2001

**Manny Dominguez**

*Adjunct Assistant Professor, Biomedical  
Informatics*  
B.S., Tampa College, 1992  
M.B.A., University of Sarasota, 1994  
Ph.D., Nova Southeastern University, 2000

**William Donaldson**

*Adjunct Instructor, Prosthodontics,  
Division of Primary Care*  
D.M.D., University of Maryland, 1965

**Theresa Doolittle**

*Adjunct Assistant Professor, Physician  
Assistant Studies*  
B.A., University of California, 1982  
M.P.H., Northeastern University, 1996  
D.H.Sc., Nova Southeastern University,  
2008

**David W. Dorton**

*Clinical Assistant Professor,  
Dermatology*  
B.S., University of South Florida, 1986  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1991

**Denis Dosphehoff**

*Adjunct Instructor, Prosthodontics,  
Division of Primary Care*  
D.M.D., Nova Southeastern University,  
2009

**James Doty**

*Clinical Assistant Professor, Surgery*  
B.S., University of Massachusetts, 1992  
M.D., Boston University School of  
Medicine, 1996

**Barry Doublestein**

*Clinical Assistant Professor,  
Family Medicine*  
*Southeast Regional Coordinator,  
Nova Southeastern University  
College of Osteopathic Medicine*  
B.A., Albion College, 1976  
M.A., Northeast Missouri  
State University, 1986  
D.S.L., Regent University, 2009

**Marilyn Douglas**

*Clinical Instructor,  
Occupational Therapy*  
B.S., University of Florida, 1990

**Norine Dowd**

*Adjunct Clinical Hygienist Instructor,  
Periodontology,  
Division of Surgical Sciences*  
A.A., Palm Beach Community College, 1988

**Carl Drago**

*Adjunct Instructor, Prosthodontics,  
Division of Primary Care*  
D.D.S., University of Iowa, 1977  
M.S., Northwestern University, 1981  
M.S., University of Texas Graduate School  
of Biomedical Sciences, 1984  
Diplomate, American Board of  
Prosthodontics, 1984

**Jeffrey Dresner**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., Rensselaer Polytechnic Institute, 1976  
M.S., State University of New York, 1978  
M.D., New York Medical College, 1982

**Martin J. Drost**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., Iowa State University, 1990  
M.D., Southern Illinois University School  
of Medicine, 1994

**Joanna Drowos**

*Clinical Assistant Professor,  
Preventive Medicine*  
*Adjunct Assistant Professor,  
Public Health*  
B.S., University of Miami, 1999  
M.P.H., Nova Southeastern University, 2002  
D.O., Nova Southeastern University, 2004

**Ana M. Duarte**

*Clinical Associate Professor,  
Dermatology*  
B.S., University of Miami, 1983  
M.D., University of Miami School of  
Medicine, 1988

**Robert H. Dudley**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of Florida, 1993  
M.D., University of Miami School of  
Medicine, 1997

**Michael Dufek**

*Clinical Associate Professor, Optometry*  
B.S., Pennsylvania State University, 1983  
O.D., Pennsylvania College  
of Optometry, 1987

**Michelle C. Duhaney**

*Clinical Instructor, Family Medicine*  
B.S., Florida Atlantic University, 2003  
D.O., University of Medicine and  
Dentistry School of Osteopathic  
Medicine, 2007

**James R. Duke**

*Clinical Associate Professor,  
Internal Medicine*  
M.D., Tulane University  
School of Medicine, 1960

**George T. Duncan**

*Adjunct Faculty, Health Science*  
B.S., University of Miami, 1970  
M.S., Florida Atlantic University, 1983  
Ph.D., Florida International University, 1996

**Stephanie Duncan-Garcia**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., Immaculata College, 1995

D.O., Philadelphia College of  
Osteopathic Medicine, 1999

**Gladys Dupuy**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*  
D.O., Nova Southeastern University, 1997

**Alexander D. Duque**

*Adjunct Assistant Professor, Oral and  
Maxillofacial Radiology, Diagnostic  
Sciences, Division of Primary Care*  
D.D.S., San Martin University  
(Colombia), 1995

**Richard Dycus II**

*Adjunct Assistant Professor,  
Physician Assistant Studies*  
B.S., Stetson University, 1993  
M.B.S., Barry University, 1995  
D.O., Nova Southeastern University, 2000

**Robert Easton**

*Clinical Adjunct Instructor, Optometry*  
O.D., University of Houston, 1982

**Albert H. Eaton**

*Clinical Assistant Professor, Family  
Medicine*  
B.S., Oregon College of Education, 1979  
M.Div., Bethel Theological Seminary, 1984  
Ph.D., Scholae Psychologicae  
Fullerianae, 1995

**Pamela Ebmeier**

*Clinical Assistant Professor, Optometry*  
O.D., University of Missouri  
at St. Louis, 1992  
Pharm.D., University of Puerto Rico  
College of Pharmacy, 1998

**Mazyar Ebrahimi**

*Adjunct Instructor, Endodontics*  
D.M.D., Nova Southeastern  
University, 2004  
Certification, Endodontics, Nova  
Southeastern University, 2008

**John Echternach**

*Adjunct Professor, Ph.D. Program,  
Physical Therapy*  
B.S., Westchester University, 1953

M.S., University of Maryland, 1965  
Ed.D., College of William and Mary, 1976

**Christina M. Ecker**

*Clinical Assistant Professor, Pediatrics*  
B.S., Long Island University, 1994  
D.O., Nova Southeastern University, 2005

**Robert J. Eisenberg**

*Adjunct Faculty, Periodontology,  
Division of Surgical Sciences*  
D.D.S., Columbia University, 1976

**Emad E. Ekladios**

*Clinical Assistant Professor,  
Family Medicine*  
M.D., Ain Shams University, 1980

**Merrick D. Elias**

*Clinical Assistant Professor,  
Dermatology*  
B.S., Cornell University, 1995  
D.O., Nova Southeastern University, 2001

**Richard A. Elias**

*Clinical Assistant Professor, Cardiology*  
M.D., Columbia University, 1955

**Aparna Eligeti**

*Clinical Assistant Professor, Obstetrics  
and Gynecology and Rural Medicine*  
B.S., University of Florida, 1993  
M.D., University of Florida College of  
Medicine, 1997

**Trevor E. Elmquist**

*Clinical Assistant Professor,  
Ophthalmology*  
B.A., University of South Florida, 1974  
M.S., University of South Florida, 1977  
D.O., University of Health Sciences  
College of Osteopathic Medicine, 1981

**Nabil El Sanadi**

*Clinical Professor,  
Family Medicine*  
B.A., Case Western  
Reserve University, 1976  
M.D., Ohio State University, 1979

**Norbert N. Engelman III**

*Clinical Assistant Professor,  
Family Medicine*

B.S., Ohio State University, 1984

D.O., Ohio University College of  
Osteopathic Medicine, 1990

**Glenn H. Englander**

*Clinical Assistant Professor,  
Internal Medicine*

B.S., State University of  
New York at Buffalo, 1977

M.D., University of Vermont, 1982

**Christine Englestad**

*Clinical Instructor, Preventive Medicine*

B.S., University of Maryland, 1973

M.S., Florida Atlantic University, 2001

**Ingrid Epelman De Dora**

*Adjunct Assistant Professor, Endodontics*

D.D.S., University of Buenos Aires, 1993

Certificate, Endodontics, University of  
Buenos Aires, 2002

Certificate, Endodontics, Nova  
Southeastern University, 2009

**Rudy Escarri**

*Clinical Assistant Professor,  
Internal Medicine*

M.D., University of Miami  
School of Medicine, 1993

**David Esguerra**

*Clinical Assistant*

*Professor, Dermatology*

B.A., Emory University, 1992

D.O., University of New England  
College of Osteopathic Medicine, 1997

**Stephen S. Estes**

*Clinical Assistant Professor, Obstetrics  
and Gynecology and Rural Medicine*

B.A., University of the South, 1967

M.D., University of Tennessee, 1970

**Babak Etemadshahidi**

*Adjunct Instructor, Prosthodontics,  
Division of Primary Care*

D.M.D., Nova Southeastern University,  
2007

**Helen Ewing**

*Adjunct Associate Professor,  
Health Science*

B.S.N., University of Calgary, 1990

M.S.N., University of Calgary, 1995

D.H.Sc., Nova Southeastern  
University, 2004

**David Fabry**

*Adjunct Professor, Audiology*

B.S., University of Minnesota, 1983

M.S., University of Minnesota, 1985

Ph.D., University of Minnesota, 1988

**Miriam Farag**

*Clinical Assistant Professor, Optometry*

O.D., Nova Southeastern University, 2005

Fellow, American Academy of Optometry

**David Farcy**

*Clinical Assistant Professor,  
Family Medicine*

B.A., Texas Tech University, 1996

M.D., Universidad Autonoma de  
Guadalajara, 2000

**Ronald B. Fauver**

*Clinical Assistant Professor, Urology*

B.A., Franklin and Marshall College, 1966

M.D., Columbia University

College of Physicians and Surgeons, 1970

**Sue Fee**

*Adjunct Faculty Member, Nursing*

B.S.N., University of South Florida, 1990

M.S.N., University of South Florida, 1994

**David Feinerman**

*Clinical Assistant Professor,  
Oral and Maxillofacial Surgery*

D.M.D., Harvard University  
School of Dental Medicine, 1988

M.D., University of Connecticut  
School of Medicine, 1992

CT—Oral and Maxillofacial Surgery,  
University of Connecticut, 1993

**Arthur L. Feldman**

*Clinical Associate Professor,  
Family Medicine*



D.O., Philadelphia College of  
Osteopathic Medicine, 1951  
Fellow, American College of  
Osteopathic Family Physicians

**Michael D. Feldman**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Temple University  
Pharmacy School, 1983  
D.O., Southeastern University  
College of Osteopathic Medicine, 1987

**Edward Fellows**

*Clinical Assistant Professor, Cariology  
and Restorative Dentistry*  
D.D.S., McGill University, 1962

**Berta G. Ferman**

*Clinical Assistant Professor,  
Preventive Medicine*  
M.D., College of Medical Science, 1976  
M.P.H., University of Miami, 1990

**Sonia Fernandez**

*Clinical Instructor, Optometry*  
O.D., Nova Southeastern University  
College of Optometry, 2008

**Lisa A. Ferreira**

*Clinical Assistant Professor,  
Pediatrics*  
B.A., College of Holy Cross, 1984  
D.O., Philadelphia College of Osteopathic  
Medicine, 1989

**Bradley S. Feuer**

*Clinical Professor,  
Family Medicine*  
B.S., University of Miami, 1980  
D.O., New York College of  
Osteopathic Medicine, 1986  
J.D., University of Miami  
School of Law, 1990

**Charles Ficco**

*Clinical Assistant Professor, Optometry*  
B.A., The Colorado College, 1989  
O.D., Nova Southeastern University  
College of Optometry, 1995

**Steven Fields**

*Clinical Associate Professor,  
Internal Medicine*  
B.A., Brown University, 1978  
M.D., Hahnemann University, 1982

**Howell Findley**

*Adjunct Instructor, Optometry*  
O.D., University of Alabama  
College of Optometry, 1981

**Jaime Fine**

*Adjunct Professor,  
Occupational Therapy*  
B.S., University of Florida, 1994  
M.S., University of Florida, 1996

**Allen Finkelstein**

*Clinical Assistant Professor,  
Family Medicine*  
D.O., West Virginia College of  
Osteopathic Medicine, 1981

**Mark S. Finkelstein**

*Clinical Assistant Professor, Radiology*  
B.A., University of Miami, 1976  
D.O., Philadelphia College of  
Osteopathic Medicine, 1980

**Ana I. Fins**

*Visiting Assistant Professor,  
Behavioral Science*  
M.S., University of Miami, 1990  
Ph.D., University of Miami, 1994

**Marsha J. Fishbane**

*Clinical Assistant Professor, Pediatrics*  
*Adjunct Assistant Professor,  
Public Health*  
B.S., Pennsylvania State University, 1970  
M.D., Jefferson Medical College, 1972

**Mark Fisher**

*Adjunct Instructor, Optometry*  
O.D., Illinois College of Optometry, 1982

**Mark S. Fishman**

*Clinical Assistant Professor,  
Physical Medicine and Rehabilitation*  
B.A., Clark University, 1997  
D.O., New York College of Osteopathic  
Medicine, 2001

**Michael Flax**

*Clinical Associate Professor, Endodontics*  
D.D.S., Georgetown University  
School of Dentistry, 1980  
Diplomate, American Board  
of Endodontics

**Dirk Fleischman**

*Adjunct Clinical Instructor, Cariology  
and Restorative Dentistry*  
D.D.S., Howard University, 1981

**Douglas E. Flemons**

*Clinical Professor, Family Medicine*  
M.A., University of British Columbia, 1986  
Ph.D., Nova Southeastern University, 1989

**Melvyn R. Fletcher**

*Clinical Assistant Professor, Pediatrics*  
B.S., University of Puerto Rico, 1964  
M.D., University of Puerto Rico  
School of Medicine, 1968

**Frank Foderaro**

*Adjunct Faculty, Health Science*  
B.S., Marietta College, 1985  
D.C., Southern California  
University of Health Science, 1989  
M.S., National University, 1999

**Julie Formoso-Onofrio**

*Clinical Assistant Professor,  
Internal Medicine*  
M.D., Universidad Central del Este, 1980

**Larry Forness**

*Adjunct Faculty, Health Science*  
A.B., University of Notre Dame, 1968  
B.A., LaSalle Extension University, 1974  
M.A., Duke University, 1972  
M.B.A., LaSalle University, 1989  
LL.M., Washington University  
School of Law, 1997

**Mark Forrest**

*Clinical Associate  
Professor, Periodontology*  
D.M.D., New York University College of  
Dentistry, 1967

**Carmen B. Fox**

*Adjunct Assistant Professor,  
Public Health*  
B.S.P.A., Nova Southeastern  
University, 1996  
M.P.H., Nova Southeastern  
University, 1996  
Fellow, American Academy  
of Physician Assistants

**Richard L. Fox**

*Clinical Assistant Professor  
Internal Medicine*  
B.S., Michigan State University, 1991  
D.O., Michigan State University College  
of Osteopathic Medicine, 1995

**Rosalyn R. Frazier**

*Adjunct Instructor, Public Health*  
B.S., DePaul University, 1991

**Ira Freedman**

*Clinical Assistant Professor,  
Periodontology*  
D.M.D., University of Pennsylvania  
College of Dental Medicine, 1982

**Samuel M. Freedman**

*Clinical Assistant Professor, Pediatrics*  
B.A., University of Miami, 1984  
M.D., University of South Florida, 1988

**Christopher Frey**

*Adjunct Instructor, Optometry*  
O.D., Nova Southeastern University, 1997

**Sabrina Friedman**

*Adjunct Faculty Member, Nursing*  
B.S.N., University of Phoenix, 1994  
M.S.N./A.R.N.P., University of Southern  
California, 1996  
Ed.D., Nova Southeastern University, 2005

**Martin J. Frisosky**

*Clinical Assistant Professor, Surgery*  
B.A., Michigan State University, 1969  
M.A., Wayne State University, 1972  
D.O., Kansas City College of  
Osteopathic Medicine, 1979

**Jason H. Frost**

*Clinical Associate Professor,  
General Surgery*  
D.O., New York College  
of Osteopathic Medicine, 1987

**Jarrold M. Frydman**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of Florida, 1995  
D.O., Lake Erie College of  
Osteopathic Medicine, 1999

**Michael L. Funk**

*Adjunct Assistant Professor,  
Physician Assistant Studies*  
B.S./P.A., Nova Southeastern  
University, 1996  
M.P.H., Nova Southeastern University, 1996  
Fellow, American Academy of  
Physician Assistants

**Roberto S. Gabitto**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., Tulane University, 1999  
D.O., Philadelphia College of Osteopathic  
Medicine, 2005

**Michelle D. Gagnon-Blodgett**

*Clinical Assistant Professor,  
Geriatrics*  
B.A., Florida International  
University, 1992  
M.S., Nova Southeastern University, 1995  
Psy.D., Nova Southeastern University, 1998

**Mirta Galante**

*Clinical Assistant Professor,  
Internal Medicine*  
M.D., Universidad De Buenos Aires, 1986

**Robin S. Gall**

*Adjunct Faculty, Health Science*  
B.S., University of Central Florida, 1991  
Ph.D., Emory University, 1996

**Lisa Galluzzo**

*Clinical Assistant Professor, Optometry*  
B.S., Adelphi University, 1990  
O.D., State University of New York, 1993

**Jose E. Gamez**

*Clinical Instructor, Psychiatry*  
B.S., Colegio Javier, 1975  
M.D., Universidad de Panama, 1982

**Alice Gandell**

*Adjunct Faculty,  
Occupational Therapy*  
B.S., University of Illinois at Chicago, 1964

**Jeffrey Ganeles**

*Adjunct Faculty, Dental Medicine*  
D.M.D., Boston University, 1983  
CT—Periodontics, University of  
Pennsylvania, 1987

**Richard Gans**

*Adjunct Professor, Audiology*  
B.A., University of Tampa, 1972  
M.S., University of South Florida, 1978  
Ph.D., Ohio State University, 1983

**Anasuya G. Gaonkar**

*Clinical Assistant Professor, Pediatrics*  
B.A., Southern Illinois University, 1973  
M.S., Southern Illinois University, 1975  
M.D., Kamatak University, 1983

**Isaac Garazi**

*Clinical Assistant Professor,  
Periodontology*  
D.M.D., Boston University Goldman  
School of Graduate Dentistry, 1983

**Bibiana Garcia**

*Adjunct Instructor, Periodontology,  
Division of Surgical Sciences*  
D.D.S., Colombian Odontological  
College, 1995

**Robert A. Gardner**

*Clinical Assistant Professor, Surgery*  
M.D., State University of New York  
Medical Center, 1962  
B.A., University of Rochester, 1966

**Meir Gare**

*Clinical Assistant Professor, Cardiology*  
B.S., Hebrew University of Jerusalem, 1987  
M.D., Hebrew University of Jerusalem, 1992

**Leonard Garfinkel**

*Clinical Assistant Professor, Periodontology*  
D.D.S., Georgetown University School of  
Dentistry, 1971

**Lawrence I. Garter**

*Clinical Assistant Professor, Pediatrics*  
B.S., Emory University, 1985  
M.D., University of Miami School of  
Medicine, 1991

**Judith Gartner**

*Assistant Professor, Prosthodontics*  
D.M.D., Nova Southeastern  
University, 2001

**Lanny Garver**

*Clinical Assistant Professor,  
Oral and Maxillofacial Surgery*  
D.M.D., University of Pennsylvania, 1967

**Roman Gastesi**

*Clinical Assistant Professor,  
Hematology/Oncology*  
B.S., Mariano Institute, 1953  
M.D., University of Madrid, 1962

**Harris Gellman**

*Clinical Professor, Orthopedic Surgery*  
B.S., Temple University, 1974  
M.D., Temple University  
Medical School, 1979

**Barry Gelman**

*Clinical Assistant Professor, Pediatrics*  
B.S., University of Miami, 1984  
M.D., University of Florida  
College of Medicine, 1988

**Michael Georgescu**

*Adjunct Faculty, Cariology and  
Restorative Dentistry*  
D.M.D., Boston University, 1987

**Erin A. Gerhart**

*Clinical Instructor, Pediatrics*  
B.S., Northeast Missouri State  
University, 1992  
D.O., Nova Southeastern University, 2006

**Edward L. German**

*Clinical Instructor,  
Pediatrics and Rural Medicine*  
B.S., Florida A&M University, 1990  
M.D., Meharry Medical Center, 2001

**Michael F. Gervasi**

*Clinical Assistant  
Professor, Family Medicine*  
B.A., Florida Atlantic University, 1983  
D.O., Southeastern University  
College of Osteopathic Medicine, 1987

**Gamal M. Ghoniem**

*Clinical Professor, Urology*  
M.D., University of Alexandria, 1974

**Joseph A. Giaino**

*Clinical Assistant Professor,  
Pulmonary Medicine*  
B.S., Ursinus College, 1983  
D.O., Philadelphia College of Osteopathic  
Medicine, 1987

**F. Gary Gieseke**

*Clinical Assistant Professor, Surgery*  
A.B., Vanderbilt University, 1957  
M.D., University of Indiana  
Medical School, 1961

**Mark Gilbert**

*Clinical Assistant  
Professor, Diagnostic Sciences*  
D.M.D., Fairleigh Dickinson  
University, 1983

**David R. Gilchrist**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of Florida, 1992  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1998

**Richard Clark Gillett**

*Clinical Associate Professor,  
Family Medicine*  
B.A., University of Virginia, 1971  
M.D., University of Virginia  
School of Medicine, 1977

**Lewis Gillmore**

*Adjunct Faculty, Community Dentistry*  
D.D.S., New York University, College of  
Dentistry, 1955

**Stuart Gindoff**

*Clinical Associate Professor, Optometry*  
B.A., Rockford College, 1970  
B.S., Illinois College of Optometry, 1971  
O.D., Illinois College of Optometry, 1973

**Ira Ginsberg**

*Adjunct Faculty, Dental Medicine*  
D.D.S., New York University, 1971  
CT—Periodontology, New York  
University, 1974

**Elisa Ginter**

*Clinical Associate Professor,  
Family Medicine*  
B.S., Michigan State University, 1982  
D.O., Michigan State University College  
of Osteopathic Medicine, 1986

**Carrie A. Gittings**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of Florida, 1997  
M.D., University of Miami School of  
Medicine, 2002

**David Glassman**

*Clinical Assistant Professor,  
Periodontology*  
D.D.S., Medical College of Virginia  
School of Dentistry, 1966

**Paul S. Glassman**

*Clinical Assistant Professor,  
Family Medicine*  
D.O., University of Health Sciences  
College of Osteopathic Medicine, 1961

**Todd Glassman**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., Florida International University, 1991  
D.O., Nova Southeastern University, 1996

**Joel Glickman**

*Adjunct Assistant Professor, Endodontics*

D.M.D., New Jersey College of  
Medicine, 1972

Certificate, Endodontics, New Jersey  
College of Medicine, 1974

**Wagih W. Gobriel**

*Clinical Assistant Professor,  
Anesthesiology, Pain Medicine*  
M.D., Ain Shams University, 1985

**Jeffrey Godel**

*Assistant Professor, Orthodontics*  
D.D.S., Howard University, 1980

**Sangita A. Gogate**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Otterbein College, 1986  
D.O., University of Osteopathic Medicine  
and Surgery, 1993

**Robert G. Gold**

*Clinical Assistant Professor, Urology*  
B.S., Tulane University College of  
Arts and Sciences, 1977  
M.D., Tulane University School of  
Medicine, 1981

**Dean R. Goldberg**

*Clinical Instructor, Surgery*  
B.A., University of Miami, 1989  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1995

**Lee D. Goldberg**

*Clinical Professor, Internal Medicine*  
B.S., Yale University, 1959  
M.D., Yale University, 1963

**Louis M. Goldblum**

*Clinical Assistant Professor, Pediatrics*  
B.S., St. Joseph's College, 1970  
D.O., Des Moines College of Osteopathic  
Medicine and Surgery, 1973

**Sandy Goldenberg**

*Adjunct Instructor, Prosthodontics,  
Division of Primary Care*  
D.M.D., Nova Southeastern  
University, 2003

**Matthias Goldstein**

*Adjunct Assistant Professor,  
Health Science*

B.A., University of Maryland, 1989  
B.T.L., Ner Israel Rabbinical College, 1990  
B.S., The George Washington  
University, 1997  
M.P.A.S., University of Nebraska, 1998  
D.H.Sc., Nova Southeastern University, 2005

**Mitchell Goldstein**

*Clinical Assistant Professor,  
Family Medicine*

B.S., Northern Illinois University, 1974  
D.O., Chicago College of  
Osteopathic Medicine, 1978

**Jack M. Goloff**

*Clinical Assistant Professor,  
Family Medicine*

B.S., University of Central Florida, 1981  
D.O., Nova Southeastern University, 1985

**Yedda M. Gomes-Ruane**

*Clinical Associate Professor,  
Pediatric Dentistry*

D.D.S., Temple University  
School of Dentistry, 1966

**Luis E. Gomez**

*Clinical Assistant Professor,  
Family Medicine*

B.A., Cornell University, 1984  
M.D., Mount Sinai  
School of Medicine, 1993

**Faustino Gonzalez**

*Clinical Assistant Professor,  
Internal Medicine*

M.D., Universidad Central Del Este, 1982

**Ivette Gonzalez**

*Clinical Instructor of Optometry*  
O.D., Nova Southeastern University  
College of Optometry, 2008

**Jorge A. Gonzalez**

*Clinical Assistant Professor,  
Family Medicine*

D.O., University of Medicine and  
Dentistry of New Jersey School of  
Osteopathic Medicine, 1983

**Maria R. Gonzalez**

*Clinical Assistant Professor,  
Family Medicine*

M.D., Autonomous University of Santo  
Domingo, 1998

**Miguel Angel Gonzalez**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*

M.D., Universidad Central, 1968

**Rene D. Gonzalez**

*Clinical Assistant Professor,  
Internal Medicine*

M.D., Universidad Catolica Madre y  
Maestra, 1982

**Kimberlee Goode**

*Adjunct Faculty Member, Nursing*

B.S., Grand Rapids Baptist College, 1987  
M.S.N., University of Phoenix, 2006

**Alen E. Gordon**

*Clinical Instructor, Surgery*

M.D., Temple University  
Medical School, 1957

**Mark W. Gordon**

*Clinical Associate Professor, Surgery*

B.S., Ursinus College, 1963  
M.D., Jefferson Medical College, 1967

**Michael Gordon**

*Adjunct Assistant Professor, Periodontics*

D.M.D., University of Pennsylvania, 1965

**Laurie Gordon-Brown**

*Adjunct Instructor, Cariology and  
Restorative Dentistry*

D.M.D., University of Pennsylvania, 1980

**James Gorelick**

*Clinical Assistant Professor, Neurology*

B.A., Rutgers College, 1971  
M.D., Rutgers Medical School, 1975

**Payal Goswami**

*Adjunct Instructor, Cariology and Restorative Dentistry*  
D.M.D., Nova Southeastern University, 2010

**Jay S. Gottlieb**

*Clinical Associate Professor, Otorhinolaryngology, Dermatology*  
B.S., University of Michigan, 1974  
D.O., University of Health Sciences, 1977

**Tamer Gozlevli**

*Clinical Assistant Professor, Family Medicine*  
B.S., University of West Florida, 1977  
D.O., Southeastern University College of Osteopathic Medicine, 1987

**Leonard M. Gralnik**

*Clinical Associate Professor, Psychiatry*  
B.A., Florida Atlantic University, 1979  
Ph.D., University of Miami, 1985  
M.D., University of Miami School of Medicine, 1988

**Michael Graubert**

*Clinical Assistant Professor, Obstetrics and Gynecology*  
B.S., Emory University, 1987  
M.D., Emory University School of Medicine, 1991

**Mark Greenberg**

*Clinical Assistant Professor, Prosthodontics*  
D.D.S., Temple University, 1968

**Sharon L. Greene**

*Clinical Instructor, Preventive Medicine*  
B.S., Florida State University, 1983

**Jonathan M. Greer**

*Clinical Assistant Professor, Internal Medicine*  
A.B., Oberlin College, 1979  
M.D., University of Florida College of Medicine, 1983

**Robert C. Greer IV**

*Clinical Assistant Professor, Family Medicine*

B.S., Texas Christian University, 1973  
D.O., Philadelphia College of Osteopathic Medicine, 1977  
Fellow, American College of Osteopathic Family Physicians

**Margaret I. Grell**

*Clinical Assistant Professor, Pediatrics*  
B.S., University of the West Indies, 1980  
M.D., University of the West Indies, 1986

**Lawrence R. Grobman**

*Adjunct Professor, Audiology*  
B.S., Haverford College  
M.D., University of Miami  
Neurotology Fellowship, University of Zurich

**Martin B. Grossman**

*Clinical Associate Professor, Surgery*  
B.S., Muhlenberg College, 1966  
M.D., Chicago Medical School, 1970

**Jeffrey Grove**

*Clinical Associate Professor, Family Medicine*  
B.S., Florida Southern College, 1986  
D.O., Southeastern University College of Osteopathic Medicine, 1990

**Paul Grusso**

*Clinical Instructor, Optometry*  
O.D., State University of New York, College of Optometry, 1999

**Vito Guario**

*Clinical Associate Professor, Optometry*  
B.S., University of South Florida, 1984  
O.D., Southern College of Optometry, 1988

**Ralph Guarneri**

*Clinical Assistant Professor, Surgery*  
B.A., SUNY at Stony Brook, 1978  
M.D., State University of New York College of Medicine, 1985

**Georges C. Guerrier**

*Clinical Assistant Professor, Pediatrics*  
M.D., State University of Haiti School of Medicine and Pharmacy, 1980

**Kettley Guerrier**

*Clinical Assistant Professor,  
Family Medicine*

M.D., State University of Haiti School of  
Medicine and Pharmacy, 1980

**Maritta K. Guertin**

*Adjunct Faculty, Periodontology,  
Division of Surgical Sciences*

Hygienist, University of Rhode Island

**Manjit S. Gulati**

*Clinical Assistant Professor, Nephrology*

M.D., Ranchi University, 1979

**Gregory G. Gulick**

*Clinical Instructor, Internal Medicine*

D.O., Nova Southeastern University  
College of Osteopathic Medicine, 2003

**Robert J. Guliner**

*Clinical Professor, Ophthalmology*

B.A., Hunter College, 1970

D.O., University of Health Sciences  
College of Osteopathic Medicine, 1974

**Neena Gupta**

*Clinical Assistant Professor,  
Family Medicine*

B.S., Iowa State University, 1976

D.O., University of Osteopathic  
Medicine and Surgery, 1983

**Martha Gutierrez Ramirez**

*Adjunct Instructor, Cariology and  
Restorative Dentistry*

D.D.S., Colombian Odontological  
College, 1989

**Nestor Guzman**

*Assistant Professor, Prosthodontics*

D.D.S., Universidad Javeriana

Bogota Colombia, 1983

D.M.D., Nova Southeastern  
University, 2004

**Paul A. Guzman**

*Clinical Instructor, Psychiatry*

M.D., Universidad Central Del  
Este School of Medicine, 1983

**Lisa Gwynn**

*Clinical Assistant Professor, Pediatrics*

B.S., University of Miami, 1989

D.O., Nova Southeastern University, 1998

**Martin E. Hale**

*Clinical Assistant Professor,  
Orthopedic Surgery*

B.A., Columbia University, 1974

M.D., State University  
of New York at Buffalo, 1980

**Charles Halfpenny**

*Clinical Assistant Professor,  
Internal Medicine*

B.S., Drexel University, 1959

M.D., Hahneman Medical College, 1963

**Anthony J. Hall**

*Clinical Assistant Professor, Surgery*

M.D., Universitas McGill, 1988

**John Halpern**

*Clinical Assistant Professor,  
Family Medicine*

B.A., State University of

New York—Binghamton, 1980

D.O., New York College of  
Osteopathic Medicine, 1985

**Edward W. Halpren**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*

B.S., State University of

New York—Albany, 1977

D.O., New York College of  
Osteopathic Medicine, 1982

**Maxine E. Hamilton**

*Clinical Assistant Professor,  
Internal Medicine*

M.D., University of the West Indies, 1982

**Andrew J. Hanly**

*Clinical Assistant Professor, Surgery*

M.D., University College

Galway Medical School, 1991

**Dennis E. Hanney**

*Clinical Assistant Professor, Cardiology*

B.A., Hofstra University, 1971

M.A., Hollins College, 1972

D.O., Kirksville College of  
Osteopathic Medicine, 1976



**Andrew Hano**

*Clinical Assistant Professor,  
Hematology/Oncology*

B.A., Northwestern University, 1973

D.O., College of Osteopathic  
Medicine and Surgery, 1977

**Ryan Hargreaves**

*Clinical Assistant Professor, Optometry*

O.D., New England College  
of Optometry, 1996

**John N. Harker**

*Clinical Assistant Professor,  
Orthopedic Surgery*

D.O., Southeastern University  
College of Osteopathic Medicine, 1989

**Carlos J. Haro**

*Clinical Assistant Professor,  
Family Medicine*

B.S., University of Miami, 1998

M.S., Nova Southeastern University, 1999

D.O., Nova Southeastern University  
College of Osteopathic Medicine, 2003

**Jonathan B. Harris**

*Clinical Assistant Professor, Neurology*

B.A., University of Chicago, 1974

M.D., University of Pennsylvania, 1982

**Michael Harris**

*Adjunct Assistant Professor, Diagnostic  
Sciences, Division of Primary Care*

D.M.D., University of Pennsylvania, 2001

Certificate, Oral Maxillofacial Surgery,  
Nova Southeastern University, 2005

**Philip L. Harris**

*Clinical Assistant Professor, Surgery*

B.S., Muhlenberg College, 1978

M.D., Pennsylvania State University  
College of Medicine, 1982

**Michael A. Harry**

*Clinical Assistant Professor,  
Family Medicine*

M.D., University of the West Indies, 1976

**Mian A. Hasan**

*Clinical Assistant Professor, Cardiology*

M.D., King Edward Medical College, 1990

**Louis Hasbrouck**

*Clinical Associate Professor, Osteopathic  
Principles and Practice*

B.A., Trinity College, 1943

D.O., Des Moines Still College of  
Osteopathic Medicine, 1955

**Daniel K. Hatton**

*Adjunct Associate Professor,  
Biomedical Informatics*

B.A., California State University, 1972

M.S., American University, 1985

Ph.D., Nova Southeastern University, 1991

**Kay E. Haw**

*Adjunct Assistant Professor,  
Health Science*

B.S.N., Towson State University, 1993

M.S., Central Michigan University, 1999

D.H.Sc., Nova Southeastern  
University, 2006

**Stephen M. Hawk**

*Clinical Instructor, Psychiatry*

B.S., Baker University, 1991

D.O., The University of Health Sciences  
College of Osteopathic Medicine, 1995

**Anna Hayden**

*Clinical Associate Professor,  
Community Medicine*

B.S., Seton Hall University, 1983

D.O., University of the Health Sciences  
College of Osteopathic Medicine, 1988

**David W. Hays**

*Adjunct Associate Professor,  
Biomedical Informatics*

B.S., State of University New York, 1982

M.A., Central Michigan University, 1984

D.P.A., Nova Southeastern University, 1992

**Patricia E. Hebert**

*Clinical Associate Professor,  
Preventive Medicine*

B.S., University of Florida, 1968

M.S., University of Alabama, 1975

Ph.D., University of Texas School of  
Public Health, 1984

**Ian M. Heger**

*Clinical Assistant Professor, Neurology*  
B.A., Clark University, 1990  
M.D., State University of New York, 1995

**Steve Heiden**

*Clinical Assistant Professor, Optometry*  
O.D., University of California  
College of Optometry, 1972

**J. Michael Heider**

*Clinical Assistant Professor, Cariology  
and Restorative Dentistry*  
D.D.S., Ohio State University, 1987

**Allen Helfer**

*Adjunct Assistant  
Professor, Endodontics*  
D.D.S., Columbia University, 1961

**David C. Hellman**

*Clinical Assistant Professor*  
D.O., Southeastern University College of  
Osteopathic Medicine, 1988

**Badalin Helvink**

*Clinical Assistant Professor, Psychiatry*  
B.S., St. Mary's College, 1986  
M.D., Assam Medical College and  
Hospital, 1991

**Charles H. Hennekens**

*Clinical Professor, Preventive Medicine*  
B.S., Queens College, 1963  
M.D., Cornell University Medical  
College, 1967  
M.S., Harvard School of Public  
Health, 1973  
Dr.P.H., Harvard School of Public  
Health, 1975

**Christel Henseler**

*Adjunct Assistant Professor,  
Health Science*  
M.S., Florida International University, 1990  
Ph.D., Florida International  
University, 2003

**Frederick N. Herman**

*Clinical Assistant Professor, Surgery*  
M.D., University of Miami School of  
Medicine, 1977

**Richard Herman**

*Adjunct Faculty, Endodontics*  
D.D.S., New York University, 1966

**Carlos E. Hernandez**

*Clinical Instructor, Pediatrics*  
M.D., Universidad Autonoma  
de Guadalajara, 1988

**Julie Hernandez**

*Adjunct Clinical Hygienist Instructor,  
Periodontology, Division of Surgical  
Sciences*  
A.S., Broward Community College, 1999  
B.S., University of Massachusetts, 1991

**Mayrene Hernandez**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Florida International University, 1993  
D.O., Nova Southeastern University, 2001

**Leslie K. Herzog**

*Clinical Assistant  
Professor, Family Medicine*  
B.A., University of Miami, 1982  
D.O., Southeastern University  
College of Osteopathic Medicine, 1987

**Daniel R. Higgins**

*Clinical Assistant Professor, Surgery*  
B.S., Massachusetts Institute  
of Technology, 1977  
M.D., University of Pennsylvania  
School of Medicine, 1980

**Bobby W. Hill**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., LaGrange College, 1973  
D.O., Kansas City College of  
Osteopathic Medicine, 1976

**Howard Hill**

*Adjunct Associate Professor,  
Pediatric Dentistry,  
Division of Developmental Sciences*  
D.D.S., University of North Carolina, 1968  
M.S., University of North Carolina, 1970  
Certificate, Orthodontics, Charlotte,  
North Carolina, 1982

**Stuart Himmelstein**

*Clinical Assistant Professor,  
Internal Medicine*  
M.D., Hahnemann University  
School of Medicine, 1987

**John P. Hirt**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., Cornell University  
College of Arts and Sciences, 1994  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1998

**Lauren J. Hochman**

*Adjunct Clinical Hygienist,  
Periodontology,  
Division of Surgical Sciences*  
Hygienist, New York University, 1988

**Thomas Hoffman, Jr.**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., University of Notre Dame, 1986  
M.D., University of Miami  
School of Medicine, 1990

**Daniel J. Hogan**

*Clinical Professor, Internal Medicine*  
M.D., Dalhousie University College of  
Medicine, 1976

**Leonard R. Hock, Jr.**

*Clinical Assistant Professor, Geriatrics*  
B.S., Central State University, 1972  
D.O., Kansas City College of Osteopathic  
Medicine, 1976

**Chanda Nicole Holsey**

*Adjunct Faculty, Health Science*  
B.A., San Diego State University, 1993  
M.P.H., Rollins School of Public Health at  
Emory University, 1996  
Dr.P.H., University of Alabama—  
Birmingham School of Public Health, 2005

**Robert B. Holtzman**

*Clinical Assistant Professor, Surgery*  
B.A., Columbia University, 1976  
M.D., City College  
of New York, 1980

**Allen Horowitz**

*Clinical Assistant Professor,  
Periodontology*  
D.D.S., University of Michigan  
School of Dentistry, 1968

**Firaz R. Hosein**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., Barry University, 1996  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 2000

**Donald C. Howard**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., University of  
South Florida, 1980  
D.O., Southeastern University  
College of Osteopathic Medicine, 1985

**Lydia H. Howard**

*Clinical Assistant Professor, Pathology*  
B.S., Florida International University, 1976  
M.D., University of Florida College of  
Medicine, 1990

**Roger A. Howell**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Kansas State University, 1982  
D.O., University of Health Sciences, 1986

**Jimmy C. Huang**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Cornell University, 1995  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 2001

**George M. Hudson**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., University of Kansas, 1976  
D.O., Philadelphia College of  
Osteopathic Medicine, 1989

**Frank P. Hull**

*Clinical Associate Professor,  
Pulmonary Medicine*  
M.D., University of Pretoria, 1990

**William C. Hulley**

*Clinical Associate Professor, Neurology*  
B.S., University of Pittsburgh, 1968  
D.O., Kirksville College of  
Osteopathic Medicine, 1972

**Handre Hurwit**

*Clinical Assistant  
Professor, Internal Medicine*  
M.D., Ross University, 1982

**Haneme Idrizi**

*Clinical Assistant Professor, Pediatrics*  
B.S., Loyola University of Chicago, 1998  
M.D., Southern Illinois University School  
of Medicine, 2003

**G. Stephen Igel**

*Clinical Instructor,  
Obstetrics and Gynecology*  
M.D., Autonomous University of  
Madrid, 1977

**Kathy Iglesias De Sato**

*Adjunct Instructor, Prosthodontics,  
Division of Primary Care*  
D.D.S., Universidad Central de Venezuela,  
School of Dentistry, Venezuela, 1997  
D.D.S., Universidad de Sao Paulo, School  
of Dentistry, Brazil, 2002  
Fellowship in Orofacial Pain Management,  
Nova Southeastern University, 2005  
D.M.D., Nova Southeastern University  
College of Dental Medicine, 2009

**Albert Ing**

*Clinical Assistant Professor,  
Cardiology*  
M.D., American University of the  
Caribbean School of Medicine, 1984

**Deborah E. Ingram**

*Clinical Assistant Professor, Pediatrics*  
B.S., University of Georgia, 1994  
M.D., Medical College of Georgia, 1998

**Louis H. Isaacson**

*Clinical Assistant Professor, Family  
Medicine*  
B.A., LaSalle College, 1973  
D.O., Des Moines University College of  
Osteopathic Medicine, 1976

**Mohammed S. Islam**

*Adjunct Instructor,  
Biomedical Informatics*  
B.S., Barry University, 1992  
M.S. Nova Southeastern University, 2010

**Lalitha G. Iyer**

*Clinical Assistant Professor,  
Family Medicine*  
M.D., Madurai Medical College, 1968

**John D. Izsak**

*Clinical Assistant Professor, Pediatrics*  
B.A., University of Vermont, 1958  
M.D., University of Vermont, 1963

**Ricardo Izurieta**

*Adjunct Assistant Professor,  
Public Health*  
M.D., Universidad Central del  
Ecuador, 1986  
M.P.H., University of Alabama School of  
Public Health, 1995  
Dr.P.H., University of Alabama, 2000

**Reza Jabbari**

*Adjunct Faculty, Community Dentistry,  
Division of Developmental Sciences*  
D.M.D., Nova Southeastern  
University, 2006

**Richard A. Jablonski**

*Clinical Assistant  
Professor, Ophthalmology*  
B.A., Eastern Michigan University, 1970  
D.O., Chicago College of  
Osteopathic Medicine, 1974

**David Jackson**

*Adjunct Faculty, Prosthodontics,  
Division of Primary Care*  
D.D.S., Emory University School of  
Dentistry, 1983

**Rosemary Jackson**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Mercer University, 1978  
M.P.H., University of North Carolina, 1980  
M.D., University of North Carolina, 1989

**Mario Jacomino**

*Clinical Assistant Professor, Pediatrics*  
B.S., University of Puerto Rico, 1984  
M.D., Ponce School of Medicine, 1988  
M.P.H., University of South Florida, 1999

**Fabiana H. Jaen**

*Clinical Instructor, Pediatrics*  
M.D., Central University of Venezuela, 2002

**Mohsin Jaffer**

*Clinical Associate Professor,  
Family Medicine*  
M.D., R.N.T. Medical College, 1979

**Mudit Jain**

*Clinical Assistant  
Professor, Endocrinology*  
M.B.B.S., Sawai Man Singh  
Medical College, 1991

**Sandeep Jain**

*Clinical Assistant Professor,  
Pulmonary Medicine*  
M.D., SMS Medical College, 1988

**Gregory J. James**

*Clinical Professor, Family Medicine*  
B.A., University of South Florida, 1983  
D.O., Southeastern University  
College of Osteopathic Medicine, 1988  
M.P.H., Nova Southeastern University  
College of Allied Health, 1997

**Maury A. Jayson**

*Clinical Assistant Professor, Urology*  
B.S., Tufts University, 1986  
M.D., Jefferson Medical College, 1990

**Kenneth S. Jeffers**

*Clinical Assistant Professor,  
Orthopedic Surgery*  
B.S., State University of  
New York at Stony Brook, 1984  
M.D., University of Illinois College of  
Osteopathic Medicine, 1992

**Ian P. Jeffries**

*Clinical Associate Professor, Pediatrics*  
B.A., Dublin University, 1967  
M.D., Dublin University, 1969

**Tahirih Jensen**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., Augsburg College, 1991  
M.H.A., Des Moines University  
Osteopathic Medicine and Health  
Sciences, 2000  
D.O., Des Moines University Osteopathic  
Medicine and Health Sciences, 2000

**Barron William Johnson**

*Clinical Assistant Professor, Pediatrics*  
B.S., University of the West Indies, 1977  
D.O., University of the West Indies, 1982

**James R. Johnson**

*Clinical Assistant Professor, Radiology*  
A.B., University of Michigan, 1972  
D.O., Chicago College of  
Osteopathic Medicine, 1978

**Judith M. Johnson**

*Clinical Assistant Professor, Surgery*  
B.S., Villanova University, 1975  
M.S., Villanova University, 1981  
M.D., Temple University School of  
Medicine, 1981

**Lyn A. Johnson**

*Clinical Assistant Professor,  
Family Medicine*  
D.O., Kansas City University of Medicine  
and Biosciences, 1990

**Michelle Johnson**

*Clinical Assistant Professor,  
Family Medicine  
Adjunct Assistant Professor,  
Public Health*  
B.S., Florida International  
University, 1988  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1994

**Josette B. Jourdon**

*Clinical Assistant Professor, Psychiatry*  
M.D., Universite D'Etat D'Haiti, 1978

**Jeffrey Joy**

*Clinical Adjunct Instructor, Optometry*  
O.D., University of Indiana  
College of Optometry, 2001

**Gertrude M. Juste**

*Clinical Assistant Professor, Pathology*  
M.D., State University of Haiti, 1980

**Juli Z. Kagan**

*Adjunct Clinical Hygienist Instructor,  
Periodontology,  
Division of Surgical Sciences*  
R.D.H., Forsyth School of Dental  
Hygiene, 1979  
B.S., University of Maryland, 1981  
M.Ed., Florida Atlantic University, 2000  
American Dental Hygiene Association, 1981  
Palm Beach County Dental  
Hygiene Society, 1990  
Broward County Dental Hygiene  
Association, 1996  
American Academy of Dental  
Hygiene, 2008

**Khalil A. Khan**

*Clinical Assistant Professor,  
Internal Medicine*  
B.A., Emory University, 1997  
M.P.H., Nova Southeastern University, 2004  
D.O., Nova Southeastern University, 2004

**Rabia H. Kahn**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., Nova Southeastern University, 2001  
D.O., Nova Southeastern University, 2004

**Daniel B. Kairys**

*Clinical Assistant Professor, Surgery*  
B.A., Dartmouth College, 1990  
M.D., Dartmouth Medical School, 1997

**Scott L. Kalina**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., Union College, 1974  
M.D., Autonomous University of  
Guadalajara, 1979

**Elroy A. Kalme-Lopez**

*Clinical Instructor, Family Medicine*  
B.S., Scholl College of Podiatric  
Medicine, 1995  
B.A., Purdue University, 1990

D.P.M., Scholl College of Podiatric  
Medicine, 1995

**Daniel R. Kanell**

*Clinical Assistant Professor,  
Orthopedic Surgery,  
Sports Medicine*  
M.D., University of Pittsburgh  
School of Medicine, 1965

**Keith Kaner**

*Adjunct Instructor, Oral and  
Maxillofacial Radiology, Diagnostic  
Sciences, Division of Primary Care*  
B.S., University of Florida, 1986  
D.D.S., New York University, 1990

**Steven L. Kanner**

*Clinical Associate Professor,  
Internal Medicine*  
B.S., Muhlenberg College, 1975  
D.O., College of Osteopathic  
Medicine and Surgery, 1979

**David M. Kanter**

*Clinical Assistant Professor, Pediatrics*  
A.B., Indiana University, 1975  
M.D., Indiana University  
School of Medicine, 1979  
M.B.A., University of Florida, 2001

**Deepak Kapila**

*Clinical Assistant Professor,  
Orthopedic Surgery*  
B.S., Fergusson College, 1971  
M.D., Armed Forces Medical College,  
1975

**Arthur Kapit**

*Clinical Assistant  
Professor, Orthodontics*  
D.D.S., Medical College of  
Virginia School of Dentistry, 1970  
M.S.D., Boston University Goldman  
School of Graduate Dentistry, 1972

**Daniel B. Kaplan**

*Clinical Associate Professor,  
Family Medicine*  
B.A., Temple University, 1973  
D.O., Philadelphia College of Osteopathic  
Medicine, 1973

**Marshall M. Kaplan**

*Clinical Assistant Professor, Urology*

B.S., University of Illinois, 1963

M.D., Loyola University, 1967

**Roland D. Kaplan**

*Clinical Associate Professor, Physical  
Medicine of Rehabilitation*

B.S., University of Miami, 1982

D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1990

**Marc G. Kaprow**

*Clinical Assistant Professor,  
Internal Medicine*

B.A., University of South Florida, 1992

D.O., Nova Southeastern University  
College of Osteopathic Medicine, 2001

**Ehsanul Karim**

*Clinical Assistant Professor, Internal  
Medicine*

M.D., Chittagong Medical College, 1992

**Helena J. Karnani**

*Clinical Assistant Professor,  
Family Medicine*

M.D., Birmingham University  
Medical School, 1980

**Irwin J. Kash**

*Clinical Assistant Professor, Pediatrics*

B.S., University of Illinois, 1965

M.D., University of Illinois Medical  
School, 1969

**Cindy H. Katanick**

*Clinical Assistant Professor,  
Family Medicine*

B.S., Michigan State University, 1980

D.O., University of Health Sciences  
College of Osteopathic Medicine, 1985

**Charles H. Kates**

*Adjunct Instructor, Oral and  
Maxillofacial Surgery*

A.B., Indiana University, 1961

D.D.S., Indiana University, 1965

**Michael J. Katin**

*Clinical Associate Professor, Radiology*

B.A., University of Pennsylvania

College of Arts and Sciences, 1969

M.D., University of Pennsylvania

Medical School, 1972

**Ronald Katz**

*Adjunct Faculty, Diagnostic Sciences,  
Division of Primary Care*

D.M.D., Tufts University, 1999

**Steven H. Katz**

*Clinical Assistant Professor,  
Family Medicine*

B.A., State University of  
New York—Binghamton, 1990

M.D., State University of  
New York Health Science  
Center at Brooklyn, 1995

**Ronald B. Kaufman**

*Clinical Professor, Cardiology*

B.S., University of Wisconsin, 1953

D.O., Chicago College of  
Osteopathic Medicine, 1957

Fellow, American College of  
Osteopathic Internists

**David J. Kay**

*Clinical Assistant Professor,  
Otolaryngology*

B.A., Yeshiva University, 1992

M.D., University of Pennsylvania School  
of Medicine, 1997

M.P.H., University of Pittsburgh, 2004

**Sonia F. Kay**

*Visiting Assistant Professor,  
Occupational Therapy*

B.S., University of Florida, 1975

M.H.S., University of Florida, 1976

Ph.D., Nova Southeastern University, 2001

**Walter J. Kay**

*Clinical Assistant Professor,  
Family Medicine*

B.S., Providence College, 1973

D.O., Kirksville College of  
Osteopathic Medicine, 1977

**Scott D. Kazdan**

*Clinical Assistant Professor,*

*Orthopedic Surgery*  
B.S., Tulane University, 1985  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1991

**Todd J. Kazdan**  
*Clinical Assistant Professor,  
Family Medicine*  
B.A., Florida International  
University, 1995  
D.O., Philadelphia College  
of Osteopathic Medicine, 1999

**Bronya Keats**  
*Adjunct Professor, Audiology*  
Ph.D., Australian National  
University, 1976

**Jeffrey G. Keiser**  
*Adjunct Professor, Public Health*  
B.A., Florida Atlantic University, 1991  
B.S., Florida Atlantic University, 1993

**Mark R. Keller**  
*Clinical Assistant Professor,  
Internal Medicine*  
B.S., University of Maryland  
College Park, 1978  
M.D., University of Maryland School of  
Medicine, 1982

**Scott T. Keller**  
*Clinical Assistant Professor,  
Family Medicine*  
A.B., West Virginia University, 1975  
D.O., West Virginia School of  
Osteopathic Medicine, 1979

**David N. Kenigsberg**  
*Clinical Assistant Professor, Cardiology*  
B.S., University of Miami, 1995  
M.D., University of Miami School of  
Medicine, 1999

**Karen T. Kennedy**  
*Clinical Assistant Professor,  
Anesthesiology*  
B.S., Eckerd College, 1988  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1992

**Daniel Kesden**  
*Clinical Assistant Professor,  
Internal Medicine*  
B.A., University of Chicago, 1966  
M.D., University of Miami, 1971

**Stanley Kessel**  
*Adjunct Assistant Professor, Orthodontics*  
D.D.S., Ohio State University, 1946  
CT—Orthodontics, Ohio State  
University, 1950

**Kevin J. Kessler**  
*Clinical Assistant Professor,  
Orthopedic Surgery, Sports Medicine*  
M.D., University of Health Sciences  
Chicago Medical School, 1987

**William T. Keweshan**  
*Clinical Associate Professor,  
Family Medicine*  
B.S., Villanova University, 1966  
D.O., Philadelphia College  
of Osteopathic Medicine, 1970

**Husman Khan**  
*Clinical Assistant Professor,  
Internal Medicine*  
M.D., Agra University, 1972  
M.P.H., Florida International  
University, 1994

**Monica Kharbanda**  
*Clinical Assistant Professor, Pediatrics*  
M.D., Government Medical College, 1993

**Maung Aung Khin**  
*Adjunct Professor, Pathology*  
B.S., Rangoon University, 1957  
M.B., Rangoon University, 1957  
Ph.D., University of Liverpool, 1965

**M. Kathleen Khin**  
*Adjunct Professor, Pathology*  
B.S./M.B., Rangoon University, 1957  
D.C.P., University of London, 1965  
D.Path., Royal College of Physicians,  
Royal College of Surgeons—England, 1965

**Richard C. Kidd**  
*Clinical Assistant Professor,  
Family Medicine*



B.S., Michigan University, 1965  
D.O., Kirksville College of  
Osteopathic Medicine, 1970

**Dana G. Killam**

*Clinical Assistant Professor,  
Family Medicine*

B.A., University of Massachusetts, 1970  
M.D., University of Massachusetts Medical  
School, 1974

**King Kim**

*Adjunct Assistant Professor, Oral and  
Maxillofacial Radiology, Diagnostic  
Sciences, Division of Primary Care*  
D.M.D., University of Pittsburgh, 2004  
Certificate in Oral Surgery, Nova  
Southeastern University, 2008

**Steven C. Kimmel**

*Clinical Assistant Professor,  
Rheumatology*

B.A., University of Pennsylvania, 1982  
M.D., New York University  
School of Medicine, 1986

**Randy S. Kimmelman**

*Clinical Assistant Professor, Surgery*  
B.A., Temple University, 1985  
M.D., University of Medicine and  
Dentistry of New Jersey, 1992

**Mary J. King**

*Clinical Assistant Professor,  
Internal Medicine*

B.A., University of South Florida, 1991  
D.O., Kirksville College  
Osteopathic Medicine, 1995

**Sandford H. Kinne**

*Clinical Assistant Professor,  
Family Medicine*

D.O., Western University of  
Health Sciences, 1990

**James R. Kinney, Sr.**

*Clinical Assistant Professor,  
Family Medicine*

B.S., Youngstown State University, 1975  
D.O., Kansas City College of  
Osteopathic Medicine, 1979

**Leslie Kiracofe**

*Adjunct Clinical Hygienist Instructor,  
Periodontology,  
Division of Surgical Sciences*

A.S., Fairleigh Dickinson University, 1986

**William T. Kirby**

*Clinical Assistant Professor,  
Dermatology*

B.S., Emory University, 1995

D.O., Nova Southeastern University, 2000

**William D. Kirsh**

*Clinical Associate Professor,  
Family Medicine*

*Adjunct Associate Professor, Public Health*

B.S., Florida State University, 1981

D.O., Southeastern University  
College of Osteopathic Medicine, 1985

M.P.H., Johns Hopkins University, 1988

**Karen S. Klapper**

*Clinical Assistant Professor,  
Family Medicine*

B.A., Wesleyan University, 1980

D.O., Chicago College of Osteopathic  
Medicine, 1985

**Aaron L. Klein**

*Clinical Assistant Professor,  
Internal Medicine*

B.A., Yeshiva University

D.O., Nova Southeastern University, 2001

**Harvey S. Kleiner**

*Clinical Associate Professor,  
Family Medicine*

B.A., Indiana University, 1967

M.S., Indiana University, 1969

M.S., Indiana University  
Medical Center, 1979

D.O., Southeastern University  
College of Osteopathic Medicine, 1987

**Richard A. Koby**

*Clinical Instructor, Family Medicine*

B.S., Lourdes College, 1986

M.D., University Autonoma of  
Guadalajara, 1981

**Howard S. Koch**

*Clinical Assistant Professor,  
Internal Medicine*

B.S., University of Miami, 1972

M.D., University of Miami  
School of Medicine, 1976

**Susan M. Koff**

*Clinical Assistant Professor, Geriatrics*

B.S., Carlow College, 1978

M.S.N., University of Pennsylvania, 1984

**George Kolos**

*Adjunct Instructor, Prosthodontics,  
Division of Primary Care*

D.M.D., University of Alabama, 1987

**Sheldon Konigsberg**

*Clinical Assistant Professor,  
Internal Medicine*

M.P.H., Harvard School of  
Public Health, 1975

M.D., Columbia University  
College of Physicians and Surgeons, 1975

**Matthew W. Korn**

*Clinical Assistant Professor, Pediatrics*

B.S., University of Florida, 1996

D.O., Nova Southeastern University, 2001

**Lori I. Kostin-Rosenberg**

*Clinical Assistant Professor, Psychiatry*

B.A., Rutgers College, 1985

M.D., University of Medicine  
and Dentistry of New Jersey, 1989

**Bipan C. Kotwal**

*Clinical Assistant Professor, Pediatrics*

M.D., Srinagar Medical College, 1970

**Wayne R. Kotzker**

*Clinical Assistant Professor, Nephrology*

B.A., Brandeis University, 1990

M.D., University of Medicine  
and Dentistry of New York, 1994

**Takashi Koyama**

*Adjunct Assistant Professor, Diagnostic  
Sciences, Division of Primary Care*

D.M.D., University of Pennsylvania, 2000

**Perry Krichmar**

*Clinical Assistant Professor,  
Cardiology*

B.S., State University of New York, 1982

M.S., Long Island University, 1983

M.D., Spartan Health Science  
University, 1986

**Alberto J. Kriger**

*Clinical Assistant Professor, Pediatrics*

B.A., Brandeis University, 1979

M.D., Columbia University  
College of Physicians and Surgeons, 1983

**Ramiah Krishnan**

*Clinical Assistant Professor,  
Internal Medicine*

M.D., University of Madras, 1977

**Melvin Krohn**

*Clinical Assistant Professor,  
Oral and Maxillofacial Surgery*

D.M.D., Harvard School of Dentistry, 1970

**Merrill A. Krolick**

*Clinical Assistant Professor, Cardiology*

B.S., Rensselaer

Polytechnic Institute, 1981

D.O., New York College of  
Osteopathic Medicine, 1985

**Robert J. Kudelko**

*Clinical Assistant Professor, Radiology*

B.S., Truman University, 1967

D.O., Kirksville College of  
Osteopathic Medicine, 1971

**Savita Kumar**

*Clinical Assistant Professor,  
Preventive Medicine*

M.D., Meerut University, 1971

M.P.H., University of Miami  
School of Public Health, 1980

M.B.A., Florida Atlantic University, 1995

**Gerald Laboda**

*Adjunct Instructor, Diagnostic Sciences,  
Division of Primary Care*

D.D.S., Temple University, 1960

Certificate, Oral Surgery, University of  
Pennsylvania, 1961

**Ernesto Lamadrid**

*Clinical Instructor, Family Medicine*

B.S., University of Puerto Rico, 1985

M.D., Universidad Nacional  
Pedro Henriquez Urena, 1992

**Albert T. Lambert**

*Clinical Assistant Professor,  
Internal Medicine*

B.S., University of Florida, 1982

M.D., University of Miami School of  
Medicine, 1987

**Peter Lamelas**

*Clinical Instructor, Emergency Medicine*

M.D., Universidad Central del Este, 1981

M.B.A., Nova University, 1993

**Arthur Lane**

*Clinical Assistant Professor, Endodontics*

D.D.S., University of Tennessee

College of Dentistry, 1965

**David M. Lang**

*Clinical Assistant Professor,  
Family Medicine*

B.S., University of Florida, 1986

D.O., Southeastern University  
College of Osteopathic Medicine, 1991

**Alicja Langner**

*Clinical Assistant Professor,  
Pediatrics and Rural Medicine*

M.D., Medical University of Gdansk, 1966

**Michael A. Langone**

*Clinical Assistant Professor,  
Orthopedic Surgery*

B.S., University of Miami, 1979

M.D., University of Health Science,  
The Chicago Medical School, 1985

**Maria-Alice Lara**

*Clinical Assistant Professor, Pediatrics*

B.S., Florida International University, 1991

M.D., Eastern Virginia Medical  
School, 1997

**Gerald J. Lavandosky**

*Clinical Assistant Professor, Pediatrics*

B.S., Virginia Tech, 1986

M.D., Eastern Virginia

Medical School, 1990

**Nuria M. Lawson**

*Clinical Assistant Professor, Surgery*

M.D., University of Panama, 1987

**Alan K. Lazar**

*Clinical Assistant Professor,  
Orthopedic Surgery*

M.D., New York Medical College, 1976

**Nhat M. Le**

*Clinical Assistant Professor,  
Orthodontics*

D.M.D., University of Florida, 1996

**Matt Leavitt**

*Clinical Assistant Professor,  
Dermatology*

B.S., University of Michigan, 1981

D.O., Michigan State University College  
of Osteopathic Medicine, 1986

**Douglas Leder**

*Clinical Assistant Professor,  
Ophthalmology*

B.A., Rutgers College, 1978

D.O., University of Medicine and  
Dentistry of New Jersey School  
of Osteopathic Medicine, 1983

**H. Wayne Lee**

*Clinical Assistant Professor,  
Family Medicine*

B.S., University of Arkansas, 1965

M.D., University of Arkansas  
Medical Center, 1969

**Marah J. Lee**

*Clinical Assistant Professor,  
Internal Medicine*

B.S., Northeast Missouri State  
University, 1985

D.O., Kirksville College of Osteopathic  
Medicine, 1989

**Noah J. Lee**

*Clinical Assistant Professor,  
Family Medicine*

B.S., University of Miami, 1997

D.O., Nova Southeastern University  
College of Osteopathic Medicine, 2002

**Seong K. Lee**

*Clinical Assistant Professor, Surgery*  
B.A., University of Missouri, 1997  
M.D., University of Missouri School of  
Medicine, 1998

**Tatiana Lee-Chee**

*Clinical Assistant Professor,*  
*Ophthalmology*  
B.S., Florida International University, 1992  
D.O., Nova Southeastern University, 1996

**Richard F. Leedy, Jr.**

*Clinical Professor, Family Medicine*  
D.O., Philadelphia College  
of Osteopathic Medicine, 1964  
M.Sc., Meharry Medical College, 1998

**Christine Legler**

*Adjunct Associate Professor,*  
*Health Science*  
B.S./PA-C, Hahnemann University, 1976  
M.S., University of Pittsburgh, 1981  
D.H.Sc., Nova Southeastern  
University, 2004

**Jessie R. Legros**

*Adjunct Associate Professor,*  
*Biomedical Informatics*  
M.P.H., University of Illinois School of  
Public Health, 1994  
Ed.D., Nova Southeastern University, 2008

**Fermin Leguen**

*Adjunct Assistant Professor, Public Health*  
M.D., Havana University, 1978  
M.P.H., Johns Hopkins University School  
of Public Health, 1998

**Harry Lehrer**

*Associate Professor, Cariology and*  
*Restorative Dentistry*  
D.M.D., University of Florida, 1984

**Bruce A. Lenes**

*Clinical Associate Professor,*  
*Internal Medicine*  
B.S., Union College, 1971  
M.D., Albany Medical College, 1975

**Gustavo G. Leon**

*Clinical Instructor, Surgery*  
M.D., University of Santiago de  
Compostela, 1973

**Andrew S. Lepoff**

*Clinical Assistant Professor, Surgery*  
B.S., Villanova University, 1982  
D.O., Southeastern University  
College of Osteopathic Medicine, 1986

**Barry Lerner**

*Clinical Instructor, Geriatrics*  
A.B., Boston University, 1965  
M.D., University of Rome, 1970

**Keith J. Lerner**

*Clinical Assistant Professor,*  
*Internal Medicine*  
B.A., Boston University, 1980  
M.D., Boston University  
School of Medicine, 1980

**Richard S. Levene**

*Clinical Assistant Professor,*  
*Family Medicine*  
B.S., Syracuse University, 1984  
D.O., New York College of Osteopathic  
Medicine, 1988

**Richard Levin**

*Clinical Assistant Professor, Urology*  
B.A., Clark University, 1985  
M.D., George Washington  
University, 1989

**Ronald H. Levin**

*Clinical Assistant Professor,*  
*Internal Medicine*  
B.A., Clark University, 1969  
M.D., George Washington University  
School of Medicine, 1973

**William Levin**

*Clinical Associate Professor,*  
*Family Medicine*  
B.S., Philadelphia College  
of Pharmacy and Science, 1954  
D.O., Philadelphia College  
of Osteopathic Medicine, 1958

**Harvey Levine**

*Adjunct Instructor, Cariology and Restorative Dentistry*  
D.M.D., University of Pennsylvania, 1967

**Larry K. Levinson**

*Clinical Assistant Professor, Family Medicine*  
B.S., Pennsylvania State University, 1981  
D.O., Philadelphia College of Osteopathic Medicine, 1985

**Norman Levy**

*Clinical Assistant Professor, Cariology and Restorative Dentistry*  
D.D.S., Maryland University, 1974

**Aldith M. Lewis**

*Clinical Assistant Professor, Internal Medicine*  
B.S., University of Florida, 1993  
D.O., Ohio University College of Osteopathic Medicine, 2001

**Martin G. Lewis**

*Clinical Professor, Pathology*  
M.D., University of London, 1968

**Mary Lewis**

*Adjunct Faculty Member, Nursing*  
B.S.N., University of Wisconsin, 1973  
M.B.A., International College, Fort Myers, 1993  
M.S.N./A.R.N.P., Barry University, 2000  
Ed.D., University of Central Florida, 2005

**Robert J. Lewis**

*Clinical Associate Professor, Pathology*  
D.O., Philadelphia College of Osteopathic Medicine, 1962

**Wilhelmina N. Lewis**

*Clinical Assistant Professor, Family Medicine*  
M.D., University of Cincinnati, 1998

**Soling Li**

*Clinical Assistant Professor, Internal Medicine*  
B.S.N., Florida International University, 1992  
M.P.H., Nova Southeastern University, 2000  
D.O., Nova Southeastern University, 2000

**Peter Liane**

*Clinical Assistant Professor, Optometry*  
O.D., Ohio State University  
College of Optometry, 1974

**Steven Licata**

*Clinical Assistant Professor, Family Medicine*  
B.A., Florida Atlantic University, 1993  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1997

**Craig H. Lichtblau**

*Clinical Assistant Professor, Physical Medicine and Rehabilitation*  
M.D., American University of the Caribbean, 1985

**Greg Lieb**

*Clinical Assistant, Optometry*  
B.S., Saint Francis University, 1995  
O.D., New England College of Optometry, 1999

**Mark E. Lieberman**

*Clinical Assistant Professor, Family Medicine*  
B.S., University of Miami, 1982  
M.D., University of Miami  
School of Medicine, 1986

**Morton Lieberman**

*Adjunct Assistant Professor, Oral Medicine, Diagnostic Sciences, Division of Primary Care*  
D.D.S., New York University College of Dentistry, 1955

**Mayer Liebman**

*Adjunct Faculty, Periodontology, Division of Surgical Sciences*  
D.D.S., George Town University, 1967  
Certificate, Periodontology, Tufts University, 1972

**Juan J. Lima**

*Clinical Assistant Professor, Pediatrics*  
M.D., Universidad Tecnologica de Santiago, 1986

**Felix S. Linetsky**

*Clinical Associate Professor,  
Osteopathic Principles and Practice*  
P.A., Odessa Medical College, 1966  
M.D., Vorenezh Medical Institute, 1975

**Richard M. Linn**

*Clinical Assistant Professor, Surgery*  
A.B., Brown University, 1980  
M.D., New York University  
College of Medicine, 1984

**Steven R. Linzer**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., State University of New York, 1982  
D.O., University of Health Sciences  
College of Osteopathic Medicine, 1986

**Edward Liu**

*Clinical Assistant Professor, Pediatrics*  
B.S., University of Michigan, 1985  
M.D., University of California, 1991

**Bernard Loeffke**

*Adjunct Professor, Public Health*  
B.S., U.S. Military Academy  
at West Point, 1957  
M.A., Middlebury College, 1967  
Ph.D., University of Miami, 1972  
B.S.P.A., Nova Southeastern University  
College of Allied Health, 1997

**Jeffrey S. Lombard**

*Clinical Associate Professor, Urology*  
B.S., Waynesburg College, 1976  
D.O., Philadelphia College of  
Osteopathic Medicine, 1980

**Beth A. Longenecker**

*Clinical Associate Professor,  
Family Medicine*  
B.A., Indiana University, 1987  
D.O., Ohio University College of  
Osteopathic Medicine, 1991

**Deborah Longwill-Fox**

*Clinical Assistant  
Professor, Dermatology*  
B.A., George Washington University, 1984  
D.O., Southeastern University  
College of Osteopathic Medicine, 1988

**Armando J. Lopez**

*Clinical Instructor, Pediatrics*  
B.S., University of Puerto Rico, 1970  
M.D., University of Zaragoza, 1976

**Rene L. Lopez-Guerrero**

*Clinical Assistant Professor, Pediatrics*  
B.S., University of Miami, 1973  
M.B.A., Florida International  
University, 1977  
M.D., Universidad Tecnologica  
de Santiago, 1983

**Miguel A. Lopez-Viego**

*Clinical Assistant Professor, Surgery*  
B.S., Brown University, 1982  
M.D., University of Miami School of  
Medicine, 1986

**Jorge A. Loredo**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., Florida International University, 1996  
D.O., Nova Southeastern University, 2000

**Wladimir P. Lorentz**

*Clinical Assistant Professor, Pediatrics*  
M.D., Tulane University School of  
Medicine, 1997  
B.S., University of Michigan, 1998

**Alan Louis**

*Clinical Assistant Professor, Pediatrics*  
M.D., University of Florida  
College of Medicine, 1966  
B.S., University of Florida, 1992

**Ramesh R. Loungani**

*Clinical Professor, Cardiology*  
M.D., Bangalore Medical College, 1977

**Robert Lovinger**

*Clinical Assistant Professor, Preventive  
Medicine and Pediatrics*  
M.D., University of Miami, 1969

**Etta L. Lowery**

*Clinical Associate  
Professor, Anesthesiology*  
B.S., Concord College, 1978  
D.O., West Virginia  
School of Medicine, 1983

**Glen D. Lowery**

*Clinical Associate Professor, Surgery*

B.S., Southern Oklahoma  
State University, 1975

D.O., Oklahoma College of  
Osteopathic Medicine, 1978

**Robert M. Luber**

*Clinical Assistant Professor,  
Family Medicine*

B.A., Lehigh University, 1973

D.O., Philadelphia College of  
Osteopathic Medicine, 1977

**Harry Lumerman**

*Adjunct Faculty, Oral Medicine*

D.D.S., New York University, 1961

**Jorge O. Luna**

*Clinical Associate Professor,  
Family Medicine*

B.S., Aquinas College, 1970

D.O., Michigan State University, 1977

**Heather M. Lutz**

*Clinical Assistant Professor,  
Family Medicine*

B.A., Florida Atlantic University

D.O., Nova Southeastern University, 2001

**Thomas M. Macaluso**

*Clinical Assistant Professor, Psychiatry*

B.A., Lafayette College, 1983

M.D., University of Medicine and  
Dentistry of New Jersey, 1987

**Ann T. Macintyre**

*Clinical Assistant Professor,  
Internal Medicine*

B.A., University of Michigan, 1995

M.S., Johns Hopkins University School of  
Hygiene and Public Health, 1997

D.O., Nova Southeastern University, 2002

**Sonia P. Madrazo-Rico**

*Clinical Assistant Professor, Pediatrics*

M.D., Universidad de Monterrey, 1986

**Mario M. Magcalas**

*Clinical Assistant Professor,  
Pulmonary Medicine*

B.S., University of Santo Tomas, 1982

M.D., University of Santo Tomas, 1986

**Donald C. Maharty**

*Clinical Assistant Professor,  
Family Medicine*

B.S., University of Scranton, 1989

D.O., Philadelphia College of Osteopathic  
Medicine, 1993

**Maria Mahmoodi**

*Clinical Assistant Professor,  
Family Medicine*

B.S., Metropolitan State College, 1990

M.D., University of Colorado Health  
Sciences Center, 1994

**Brian Mahony**

*Clinical Adjunct Instructor, Optometry*

O.D., Pennsylvania College of  
Optometry, 1985

**Mary R. Mailloux**

*Clinical Assistant Professor,  
Family Medicine*

B.A., University of Miami, 1987

M.D., Johns Hopkins University  
School of Medicine, 1991

**Archana Maini**

*Clinical Assistant Professor,  
Hematology/Oncology*

M.D., Lady Harding Medical College, 1986

**Major M. Malcolm**

*Clinical Assistant Professor,  
Internal Medicine*

M.D., University of Illinois, 1984

J.D., Boston University School of Law, 1996

**Vinod K. Malik**

*Clinical Assistant  
Professor, Anesthesiology*

B.S., College Hissar, 1980

M.D., Medical College Rohtak, 1986

**Ophelia J. Mall**

*Clinical Assistant Professor, Pediatrics*

M.D., Dow Medical College, 1968

**Ronald M. Mall**

*Clinical Assistant Professor,  
Family Medicine*

B.A., University of Illinois, 1970  
M.S., Southern Illinois University, 1971  
D.O., Chicago College of  
Osteopathic Medicine, 1975

**Michael J. Mallis**

*Clinical Assistant Professor, Surgery*  
D.O., Philadelphia College of Osteopathic  
Medicine, 1997

**Frances M. Mally**

*Clinical Assistant Professor,*  
*Internal Medicine*  
B.S., Florida International University, 1985  
D.O., Nova Southeastern University, 1993

**Mauricio Malo**

*Adjunct Instructor, Prosthodontics,*  
*Division of Primary Care*  
D.D.S., Colombian Odontological College,  
Colombia, 1995  
Certificate, Prosthodontics, Loma Linda  
University, 2004

**Jere J. Mammino**

*Clinical Assistant Professor,*  
*Dermatology*  
B.S., Albright College, 1978  
D.O., Philadelphia College of Osteopathic  
Medicine, 1982

**David L. Mandell**

*Clinical Associate Professor,*  
*Otolaryngology*  
B.A., University of Maryland, 1992  
M.D., University of Maryland, 1996

**Michael Mandese**

*Clinical Assistant Professor, Optometry*  
O.D., Nova Southeastern University, 1996

**Deepak S. Mandi**

*Clinical Assistant Professor,*  
*Internal Medicine*  
M.D., Bangalore Medical College, 1990  
B.S., University of Kentucky, 1993

**Basil Mangra**

*Clinical Assistant Professor,*  
*Internal Medicine*  
B.S., Roosevelt University, 1983  
M.D., University of Illinois, 1989

**Vivian Manjarres**

*Adjunct Clinical Assistant*  
*Professor, Endodontics*  
D.D.S., Universidad Javeriana  
Bogota Colombia, 1992  
CT—Endodontics,  
Baylor College of Dentistry, 1997

**Gene F. Manko**

*Clinical Assistant Professor,*  
*Obstetrics/Gynecology*  
B.S., University of Pennsylvania, 1968  
M.D., University of Pennsylvania, 1972

**Judith Mann**

*Adjunct Faculty, Physical Therapy*  
B.S. PT, Boston University, 1975  
M.A. PT, Touro College, 1997  
D.P.T., Nova Southeastern University, 2008

**Jason A. Mansour**

*Clinical Assistant Professor,*  
*Family Medicine*  
B.S., Duquesne University, 1998  
M.D., Drexel University College of  
Medicine, 2003

**Constantine A. Mantz**

*Clinical Assistant Professor, Oncology*  
B.S., Loyola University of Chicago, 1990  
M.D., University of Chicago, 1995

**Alberto A. Marante**

*Clinical Assistant Professor, Pediatrics*  
B.A., University of South Florida, 1978  
M.D., Universidad CETEC, 1981

**James Marbourg**

*Clinical Assistant Professor, Optometry*  
O.D., University of Alabama  
School of Optometry, 1977

**David Marcus**

*Clinical Associate Professor, Pediatrics*  
B.S., Tulane University, 1977  
M.D., Tulane University, 1981

**Gary L. Marder**

*Clinical Assistant*  
*Professor, Dermatology*  
B.A., New York University, 1977



D.O., University of Health Sciences  
College of Osteopathic Medicine, 1983

**Edward E. Maready**  
*Clinical Assistant Professor,*  
*Family Medicine*

B.A., North Carolina State University, 1998  
M.D., Wake Forest University, 2002

**Cindy Marika**  
*Clinical Assistant Professor,*  
*Family Medicine*

B.S., University of Florida, 1981  
D.O., Southeastern University College of  
Osteopathic Medicine, 1987

**Michelle Markley**  
*Clinical Assistant Professor, Surgery*  
M.D., University of Miami  
School of Medicine, 1990

**Michael Markou**  
*Clinical Assistant Professor,*  
*Family Medicine*  
B.S., University of South Florida, 1987  
D.O., Kirksville College of  
Osteopathic Medicine, 1991

**Stanley W. Marks**  
*Clinical Assistant Professor, Surgery*  
B.A., C. W. Post College of  
Long Island University, 1969  
M.D., Howard University  
College of Medicine, 1973

**Angelique T. Martinez**  
*Clinical Instructor, Pediatrics*  
B.A., Old Dominion University, 2001  
M.D., Eastern Virginia Medical School, 2005

**Antonio E. Martinez**  
*Clinical Assistant Professor, Pathology*  
B.S., Florida International University, 1994  
M.D., Universidad Autonoma De Centro  
America, 1999

**Isidro R. Martinez**  
*Clinical Assistant Professor,*  
*Obstetrics and Gynecology*  
B.S., Xavier University, 1984  
M.D., University of Puerto Rico School of  
Medicine, 1988

**Ramon E. Martinez**  
*Clinical Assistant Professor,*  
*Internal Medicine*  
M.D., Central University of Venezuela, 1999

**Santiago E. Martinez**  
*Clinical Assistant Professor,*  
*Internal Medicine*  
M.D., Universidad Autonoma  
de Santo Domingo, 1982

**Walter C. Martinez**  
*Clinical Associate Professor, Neurology*  
B.S., San Marcos University, 1960  
M.D., San Marcos University, 1967

**Richard Martinoff**  
*Adjunct Assistant Professor,*  
*Biomedical Informatics*  
B.S., University of Illinois, 1995  
M.D., University of Illinois College of  
Medicine, 1999

**Eugene L. Mascarenhas**  
*Clinical Assistant Professor, Cardiology*  
M.D., Grant Medical College, 1966

**Mohammad M. Masri**  
*Clinical Assistant Professor, Surgery*  
M.D., Aleppo University, 1976

**Thomas H. Matese, Jr.**  
*Clinical Assistant Professor,*  
*Family Medicine*  
B.S., Villanova University, 1984  
D.O., University of Health Sciences  
College of Osteopathic Medicine, 1988

**Mitchell F. Matesz**  
*Clinical Assistant Professor, Surgery*  
B.A., Rutgers College, 1982  
D.O., Philadelphia College  
of Osteopathic Medicine, 1986

**Denby Matthews**  
*Adjunct Faculty, Prosthodontics*  
D.D.S., Ohio State University, 1969

**Barry I. Matza**  
*Clinical Assistant*  
*Professor, Orthodontics*  
D.M.D., Tufts University  
School of Dental Medicine, 1973

**Mitchell D. Maulfair**

*Clinical Associate Professor,  
Family Medicine*  
D.O., Philadelphia College  
of Osteopathic Medicine, 1977

**Troy C. Maurer**

*Clinical Instructor, Sports Medicine*  
B.A., Purdue University, 1989

**Dane L. Maxfield**

*Clinical Associate Professor,  
Internal Medicine*  
B.A., Northwestern University, 1968  
D.O., Kirksville College of  
Osteopathic Medicine, 1972

**John P. May**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., University of Notre Dame, 1984  
M.D., Loyola University Stritch  
School of Medicine, 1988

**Laura L. Mays**

*Adjunct Faculty,  
Physician Assistant Studies*  
B.S., Butler University, 2001

**Cynthia A. Mayer**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., University of Florida, 1973  
D.O., West Virginia School of  
Osteopathic Medicine, 1986

**Joseph C. Mazzola**

*Clinical Assistant Professor, Family  
Medicine*  
B.S., Georgia State University, 1995  
D.O., Chicago College of Osteopathic  
Medicine, 1999

**William H. McAfee**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., University of Virginia, 1966  
M.S., Medical University of  
South Carolina, 1970  
Ed.D., University of South Carolina, 1979

**Daniel P. McBath**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., St. Leo College, 1984  
D.O., Southeastern University  
College of Osteopathic Medicine, 1990

**James L. McBride**

*Clinical Associate Professor,  
Family Medicine*  
Ph.D., Florida State University, 1988

**Paul A. McCarthy**

*Clinical Instructor, Preventive Medicine*  
B.A., Canisius College, 1978  
M.A., Syracuse University, 1989

**John McClane III**

*Clinical Assistant Professor, Optometry*  
B.S., University of Florida, 1975  
O.D., Illinois College of Optometry, 1979

**Wayne A. McCreath**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*  
B.S., Clark University, 1990  
B.S., Cornell University, 1992  
M.D., Medical College of Ohio, 1998

**Malcolm H. McDonald**

*Clinical Associate Professor, Surgery*  
B.S., Michigan State University, 1965  
D.O., Michigan State University, 1969

**Daniel E. McGee**

*Clinical Instructor, Family Medicine*  
B.S., Middle Tennessee State  
University, 2001  
D.O., Nova Southeastern University, 2005

**David A. McInnes**

*Clinical Associate Professor,  
Family Medicine*  
A.B., William Jewell College, 1977  
M.D., University of Missouri, 1981  
M.Ed., University of  
Southern California, 2001

**Bruce J. McIntosh**

*Clinical Assistant Professor, Pediatrics*  
B.A., Emory University, 1966

M.D., University of Florida  
School of Medicine, 1970

**Sonya V. McKee**

*Clinical Assistant Professor, Psychiatry*  
B.A., Wayne State University, 1986  
M.D., Wayne State University, 1990

**Michael J. McKenzie**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Virginia Commonwealth  
University, 1992  
M.D., Universidad Iberoamericana  
School of Medicine, 1999

**Archie McLean**

*Clinical Associate Professor,  
Community Medicine*  
A.B., Bowdoin College, 1977  
M.P.H., University of  
South Carolina, 1978  
D.O., Southeastern University  
College of Osteopathic Medicine, 1988

**John McSoley**

*Clinical Assistant Professor, Optometry*  
O.D., New England  
College of Optometry, 1991

**Lucy R. Mead**

*Clinical Instructor, Geriatrics*  
B.S.N., Florida Atlantic University, 2005  
M.S.N., Florida Atlantic University, 2007

**Clyde Meckstroth**

*Clinical Assistant Professor, Surgery*  
B.S., University of Florida, 1981  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1985  
M.H.A., University of Florida, 2003

**Dan H. Meirson**

*Clinical Assistant  
Professor, Dermatology*  
B.S., University of Michigan, 1982  
M.D., Ohio State University, 1986

**Malcolm Meister**

*Adjunct Professor, Orthodontics*  
D.D.S., New York University  
College of Dentistry, 1955

M.S.M., Florida International  
University, 1981  
J.D., Nova Southeastern University, 1995

**Elise Mellman**

*Adjunct Clinical Hygienist Instructor,  
Periodontology,  
Division of Surgical Sciences*  
A.S., State University of New York, 1979

**Barbara Ann Melzer**

*Adjunct Professor, Ph.D. Program  
Physical Therapy*  
B.S., University of North Dakota, 1972  
M.S. University of Minnesota, 1976  
Ph.D., University of Texas at Austin, 1989

**Karen Memoli**

*Clinical Assistant Professor, Optometry*  
O.D., Nova Southeastern University, 1999

**Avishai Mendelson**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., University of Florida, 1988  
M.D., University of Miami  
School of Medicine, 1993

**Martin R Mendelson**

*Adjunct Instructor, Prosthodontics,  
Division of Primary Care*  
D.D.S., Baltimore College of Dental  
Surgery, 1996

**Benny Menendez**

*Clinical Assistant Professor,  
Family Medicine*  
M.D., University of Puerto Rico, 1986  
D.O., New York College of  
Osteopathic Medicine, 1989

**Richard J. Menendez**

*Clinical Associate Professor,  
Family Medicine*  
B.S., Tulane University, 1979  
M.D., University of Puerto Rico  
Medical School, 1983

**Roxanna M. Menendez**

*Clinical Assistant Professor, Pediatrics*  
B.S., University of Miami, 1991

D.O., Western University of  
the Health Sciences, 1996

**Richard A. Miller**

*Clinical Assistant Professor,  
Dermatology*

B.S., University of Michigan, 1978

D.O., Michigan State University, 1984

**Jules G. Minkes**

*Clinical Professor, Cardiology*

D.O., Kirksville College of Osteopathic  
Medicine, 1962

**Michael J. Minton**

*Adjunct Instructor,  
Biomedical Informatics*

B.S., Purdue University, 1975

M.S., University of California, 1979

**Neil Miransky**

*Clinical Assistant Professor,  
Family Medicine*

B.A., University of Florida, 1992

D.O., Nova Southeastern University, 2003

**Barry M. Miskin**

*Clinical Assistant Professor, Surgery*

M.D., New York Medical College  
of New Rochester, 1981

**Glen Mitchell**

*Clinical Assistant Professor, Endodontics*

D.D.S., Northwestern University, 1991

**Lauren Mitchell**

*Clinical Assistant Professor, Endodontics*

D.D.S., Northwestern University, 1992

**Rakesh K. Mittal**

*Clinical Associate Professor, Pediatrics*

Premed, Delhi College, 1972

M.D., University College of

Medical Sciences, 1978

**Vishnu Mohan**

*Adjunct Assistant Professor,  
Biomedical Informatics*

M.S., Oregon Health and Science  
University, 2009

M.D., University of Delhi, 1991

**Marie-Evelyne Moise**

*Clinical Assistant Professor,  
Internal Medicine*

M.D., University of Brussels, 1980

**Shahida P. Moizuddin**

*Clinical Assistant Professor,  
Preventive Medicine*

M.D., Gandhi Medical College, 1973

M.P.H., Tulane School of  
Public Health, 1987

**Bertram Moldauer**

*Associate Director,  
Postdoctoral Endodontics*

*Assistant Professor, Endodontics*

D.M.D., Nova Southeastern  
University, 2003

**Ronald K. Molinet**

*Clinical Assistant Professor,  
Internal Medicine*

B.A., Yale University, 1955

M.D., New York Medical College, 1959

**Francis K. Moll III**

*Clinical Assistant Professor,  
Orthopedic Surgery*

B.A., Westeyan University, 1984

M.D., University of Miami School of  
Medicine, 1989

**Tony Momeni**

*Clinical Assistant Professor,  
Family Medicine*

B.S., University of Florida, 1988

D.O., Southeastern University  
College of Osteopathic Medicine, 1993

**Carroll L. Moody**

*Clinical Associate Professor, Cardiology*

M.D., University of Louisville, 1967

**Harry K. Moon**

*Clinical Associate Professor, Surgery*

B.A., Tulane University, 1972

M.D., University of South Alabama  
College of Medicine, 1978

**M. Fernando D. J. Moraflores**

*Clinical Assistant Professor,  
Pediatrics*

M.D., Universidad San Carlos de Guatemala, 1982

**Rommel R. Morales**

*Clinical Assistant Professor, Pediatrics*  
M.D., Universidad Centro de Estudios Tecnicos, 1983

**Glenn Moran**

*Clinical Associate Professor, Family Medicine*  
B.A., Florida Atlantic University, 1982  
D.O., Southeastern University  
College of Osteopathic Medicine, 1988

**Jorge B. Mordujovich**

*Clinical Assistant Professor, Internal Medicine*  
M.D., University of La Plata School of Medicine, 1968

**Max J. Moreno**

*Adjunct Assistant Professor, Public Health*  
B.S., Universidad Nacional de Colombia, 1993  
M.S., Pontifica Universidad Javeriana, 2000  
Ph.D., University of South Florida, 2008

**Marc Morganstine**

*Clinical Professor, Community Medicine*  
B.S., Moravian College, 1965  
D.O., Philadelphia College of Osteopathic Medicine, 1969  
M.S., Southeastern University, 1979

**Richard Morris**

*Clinical Assistant Professor, Optometry*  
O.D., Southern College of Optometry, 1986

**Stephen A. Morris**

*Clinical Adjunct Instructor, Optometry*  
O.D., Southern College of Optometry, 1964

**Stephen M. Morris**

*Clinical Assistant Professor, Internal Medicine*  
A.B., Temple University, 1961  
M.D., Temple University School of Medicine, 1965

**James Morrish**

*Adjunct Assistant Professor, Orthodontics*  
B.A., Emory University, 1976  
D.D.S., Emory University School of Dentistry, 1981  
Certificate, Orthodontics, University of Florida School of Dentistry, 1983  
Diplomate, American Board of Orthodontics

**Linda S. Morse**

*Clinical Assistant Professor, Family Medicine*  
B.A., Indiana University, 1977  
D.O., Oklahoma State University  
College of Osteopathic Medicine, 1982  
M.P.H., Tulane University, 1984

**Neal R. Mortensen**

*Clinical Instructor, Family Medicine*  
B.S., St. Joseph College, 1988  
D.P.M., Dr. William Scholl College of Podiatric Medicine, 1993

**Saima Mufti**

*Clinical Assistant Professor, Internal Medicine*  
M.D., University of Kashmir, 1995

**Deborah A. Mulligan**

*Clinical Professor, Pediatrics*  
B.A., University of San Francisco, 1976  
M.D., University of California  
Los Angeles, 1982

**Duaine D. Murphree**

*Clinical Assistant Professor, Family Medicine*  
B.S., University of South Alabama, 1977  
M.D., University of South Alabama, 1983  
M.S., Wake Forest University, 1991

**Suzanne C. Murphy**

*Clinical Assistant Professor, Internal Medicine*  
B.S., Villanova University, 1988  
M.D., Albany Medical College, 1992

**Roy C. Musoff**

*Clinical Assistant Professor, Internal Medicine*

B.S., City College of New York, 1980  
M.D., Universidad del Noreste, 1986

**Ralph G. Nader**

*Clinical Assistant Professor, Cardiology*  
B.A., University of Pennsylvania, 1980  
M.D., Northwestern University  
Medical School, 1984

**Diana Naffah**

*Adjunct Assistant Professor,  
Prosthodontics,  
Division of Primary Care*  
D.D.S., Pontificia Universidad  
Javeriana, 1995  
Specialization in Orthodontics, Pontificia  
Universidad Javeriana, 2001

**Michael H. Nahmad**

*Clinical Professor, Surgery*  
B.S., University of New Mexico, 1960  
M.D., Tulane Medical School, 1964

**Erick C. Naka-Mizrahi**

*Clinical Assistant Professor, Pediatrics*  
B.S., Carnegie Mellon University, 1991  
M.D., Mercer University School of  
Medicine, 1995

**Joseph J. Namey, Jr.**

*Clinical Associate Professor,  
Internal Medicine*  
B.S., Gannon University, 1983  
D.O., Southeastern University  
College of Osteopathic Medicine, 1987

**Kenneth R. Nanni**

*Adjunct Professor, Health Science*  
B.S., University of Florida, 1995  
M.S., California College for Health  
Science, 1999  
Ph.D., Nova Southeastern University, 2004

**James A. Napier, Jr.**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., University of Michigan, 1970  
D.O., College of Osteopathic  
Medicine and Surgery, 1974  
J.D., Stetson University  
College of Law, 1984

**Luis F. Narvaez**

*Clinical Assistant Professor,  
Family Medicine*  
M.D., Universidad del Valle, 1984

**Neil A. Natkow**

*Clinical Professor, Family Medicine*  
A.B., Indiana University, 1968  
D.O., University of Health Sciences  
College of Osteopathic Medicine, 1972

**Lourdes I. Navarro**

*Clinical Instructor, Internal Medicine*  
B.A., Liceo Hondureno Sagrado Corazon,  
1970  
P.A., University Michoacan De San  
Nicolas de Hidalgo, 1979

**Katherine E. Naymick**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Robert Morris College, 1977  
D.O., West Virginia School of Osteopathic  
Medicine, 1989

**Rajkumar M. Nebhrajani**

*Clinical Assistant Professor, Surgery*  
M.D., Topiwala National  
Medical College, 1979

**Joe A. Nelson**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Florida Southern College, 1979  
D.O., University of Osteopathic Medicine  
and Health Sciences, 1984

**Beverly Y. Nelson-Curtis**

*Clinical Professor, Pediatrics*  
B.A., Herbert Lehman College, 1976  
M.S., New York University, 1978  
M.D., State University of New York, 1982

**Cara R. Nelson-James**

*Clinical Professor, Family Medicine*  
B.S., Florida Atlantic University, 1977  
D.O., Nova Southeastern University, 2003

**Edward Neuwirth**

*Clinical Assistant Professor,  
Prosthodontics*

D.D.S., New York University  
College of Dentistry, 1960

**Steven Newman**

*Clinical Assistant Professor, Optometry*  
O.D., Nova Southeastern University, 1996

**Emanuel Newmark**

*Clinical Professor, Ophthalmology*  
B.S., Rutgers University College of  
Pharmacy, 1959  
M.D., Duke University School of  
Medicine, 1966

**Nam Q. Nguyen**

*Clinical Assistant Professor,  
Internal Medicine*  
B.A., Florida Atlantic University, 1994  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1999

**Sonny V. Nguyen**

*Clinical Assistant Professor,  
Internal Medicine*  
M.D., Jefferson Medical College, 1999

**Thuy-Lan Nguyen**

*Clinical Assistant Professor, Optometry*  
O.D., Nova Southeastern University  
College of Optometry, 2002

**Scott A. Nichols**

*Clinical Assistant Professor, Pediatrics*  
B.A., Occidental College, 1995  
M.D., University of Pennsylvania  
School of Medicine, 1999

**Barry P. Nierenberg**

*Clinical Associate Professor, Psychiatry*  
B.A., State University of New York, 1973  
M.S., Queens College, 1975  
Ph.D., University of Tennessee, 1981

**Iran Niroomand-Rad**

*Clinical Assistant Professor, Pediatrics*  
M.S., Michigan State University, 1982  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1989

**Ross D. Nochimson**

*Clinical Assistant Professor,  
Internal Medicine*

M.D., New York Medical College, 1975

**Fred Norkin**

*Clinical Assistant Professor,  
Periodontology*  
D.D.S., Tufts University, 1997

**Robert A. Norman**

*Clinical Associate  
Professor, Dermatology*  
D.O., Chicago College of Osteopathic  
Medicine, 1981  
M.P.H., University of South Florida, 2001

**Carlos H. Nousari**

*Clinical Professor, Dermatology*  
M.D., Universidad Catolica De  
Cordoba, 1989

**Martin Novey**

*Clinical Assistant, Optometry*  
B.S., Indiana University  
of Pennsylvania, 1991  
O.D., Pennsylvania College  
of Optometry, 1994

**Robert P. Novo**

*Clinical Assistant Professor, Pediatrics*  
B.A., Rutgers University, 1975  
M.D., CETEC University, 1980

**Michael A. Nowak**

*Clinical Assistant Professor,  
Pathology*  
B.S., Xavier University, 1983  
M.D., Wright State University, 1988

**Jeffrey Nullman**

*Clinical Assistant Professor, Cariology  
and Restorative Dentistry*  
D.D.S., State University of  
New York at Buffalo, 1977

**Charles L. Nutinsky**

*Clinical Associate Professor, Surgery*  
B.S., Delaware Valley College, 1973  
D.O., University of Health Sciences  
College of Osteopathic Medicine, 1977

**Tatiana M. Ochoa**

*Adjunct Assistant Professor,  
Public Health*

M.D., Universidad Central del Ecuador, 1986

**Timothy E. O'Connor**

*Clinical Instructor, Preventive Medicine*  
B.A., Wayne State University, 1974

**Hector Octaviani**

*Clinical Assistant Professor, Pediatrics*  
B.S.N., University of Puerto Rico, 1978  
M.D., University of Puerto Rico  
School of Medicine, 1982

**Maureen O'Hara**

*Adjunct Faculty, Health Science*  
B.Sc., California State Polytechnic  
University—Pomona, 1972  
M.A., California State University—Los  
Angeles, 2001  
D.H.Sc., Nova Southeastern  
University, 2007

**Marshall D. Ohring**

*Clinical Assistant Professor, Pediatrics*  
M.D., Technion Institute of Technology  
School of Medicine, 1983

**Nicholas Z. Okeson**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., Bethany College, 1991  
D.O., Kirksville College of Osteopathic  
Medicine, 1995

**Nnachi L. Oko**

*Clinical Assistant Professor, Family  
Medicine*  
M.D., University of Health Sciences  
Antigua, 1987

**Dennis J. O'Leary**

*Clinical Assistant  
Professor, Internal Medicine*  
B.A., Manhattan College, 1971  
D.O., Philadelphia College  
of Osteopathic Medicine, 1977

**Alvin Olesh**

*Adjunct Instructor, Cariology and  
Restorative Dentistry,  
Division of Primary Care*  
D.D.S., New York University, 1973

**Seymour Oliet**

*Adjunct Faculty, Endodontics*  
D.D.S., University of Pennsylvania, 1953

**Ovidio Olivencia**

*Adjunct Faculty, Physical Therapy*  
B.S., University of California—Davis, 1999  
M.P.T., Nova Southeastern University, 2002

**Kevin P. O'Neill**

*Clinical Instructor, Sports Medicine*  
B.S., University of Pittsburgh, 1976  
M.S., University of Arizona, 1977

**Martha O'Neill**

*Adjunct Faculty Member, Nursing*  
B.S.N., University of Michigan—Ann  
Arbor, 1972  
M.S.N., University of Arizona, 1979

**Michelle T. O'Neill**

*Clinical Instructor, Internal Medicine*  
B.S., University of Florida, 1993  
B.S., Nova Southeastern University, 1997

**James Ongley**

*Adjunct Faculty, Health Science*  
B.S., University of Florida, 1973  
M.D., University of Florida, 1977  
J.D., Nova Southeastern University, 1989

**Peter H. Oostwouder**

*Clinical Assistant  
Professor, Family Medicine*  
B.A., Washington University, 1978  
M.D., St. Louis University  
School of Medicine, 1982

**Arnold A. Oper**

*Clinical Instructor, Family Medicine*  
B.A., Washington & Jefferson College, 1950  
M.S., Columbia University, 1952  
M.D., University of New York College of  
Medicine, 1957

**Jacques E. Orces**

*Clinical Assistant Professor, Pediatrics*  
B.A., Arizona State University, 1988  
D.O., Nova Southeastern University, 1996



**Edgar G. Orellana**

*Clinical Assistant Professor, Pediatrics*  
M.D., University of  
San Carlos, Guatemala, 1979

**Brett Osborn**

*Clinical Assistant Professor, Surgery*  
D.O., Chicago College of Osteopathic  
Medicine, 1996

**Ahmed F. Osman**

*Clinical Assistant Professor, Cardiology*  
M.D., Cairo University Faculty of  
Medicine, 1991

**Carolina Ospina**

*Adjunct Clinical Hygienist Instructor,  
Periodontology,  
Division of Surgical Sciences*  
D.D.S., Universidad El Bosque,  
Colombia, 2003

**Paola Ossa Gomez**

*Adjunct Instructor, Endodontics,  
Division of Surgical Sciences*  
D.D.S., Colombian Odontological  
College, 1991

**Leon Ostroff**

*Clinical Assistant Professor, Periodontology*  
D.M.D., Tufts University School  
of Dental Medicine, 1973

**Anthony N. Ottaviani**

*Clinical Professor, Pulmonary Medicine*  
*Adjunct Associate Professor,  
Public Health*

B.A., Gannon College, 1964  
D.O., University of Health Sciences  
College of Osteopathic Medicine, 1968  
M.P.H., Nova Southeastern University  
College of Allied Health, 1997

**Robert H. Ozaki**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of California, 1994  
D.O., Kirksville College of Osteopathic  
Medicine, 2001

**James Pace**

*Adjunct Faculty,  
Physician Assistant Studies*

PA-C, University of Nebraska, 1976

**Barbara Packer**

*Adjunct Professor, Audiology*  
B.A., Douglas College,  
Rutgers University, 1974  
M.S., Teachers College, Columbia, 1976  
Ed.D., Nova Southeastern University, 1995

**Mark S. Palazzolo**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*  
B.S., Michigan State University, 1995  
D.O., Michigan State University College  
of Osteopathic Medicine, 1999

**Richard J. Paley**

*Clinical Assistant Professor,  
Family Medicine*  
M.D., University of Virginia  
School of Medicine, 1989

**Lynne Palma**

*Clinical Assistant Professor, Family  
Medicine*  
B.S.N., University of California, 1977  
M.S., University of California, 1984

**Siddharth J. Pandya**

*Clinical Assistant Professor, Radiology*  
B.S., Arizona State University, 1990  
D.O., University of Health Sciences  
College of Osteopathic Medicine, 1995

**Melvin E. Pann**

*Clinical Assistant Professor, Surgery*  
B.A., Hofstra University, 1969  
M.D., New York University  
School of Medicine, 1973

**Eric Pantaleon**

*Clinical Assistant Professor, Pediatrics*  
M.D., Universidad Nacional Pedro  
Henriquez Urena, 1986

**Juan C. Paramo**

*Clinical Associate Professor, Surgery*  
M.D., Pontificia  
Universidad Javeria, 1991

**Keith B. Paredes**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*  
B.S., Florida State University, 1974  
M.D., University of Florida College of  
Medicine, 1977

**Angelica M. Parra**

*Clinical Assistant Professor, Pediatrics*  
B.S., Fordham University, 1998  
M.D., University of Medicine and  
Dentistry of New York, 2003

**Michael W. Parra**

*Clinical Assistant Professor, Surgery*  
M.D., Colegio Mayor De Nuestra Senora  
del Rosario, 1993

**Christopher F. Parry**

*Clinical Assistant Professor,  
Urology Surgery*  
B.S., Eastern Michigan University, 1976  
D.O., Chicago College of Osteopathic  
Medicine, 1980

**Vipul R. Patel**

*Clinical Associate Professor, Urology*  
M.D., Baylor College of Medicine, 1995

**Naresh H. Pathak**

*Clinical Associate Professor,  
Internal Medicine*  
B.A., University of California, 1979  
M.D., UTESA School of Medicine, 1985

**Andres Patron**

*Clinical Assistant  
Professor, Internal Medicine*  
B.A., Seton Hall University, 1984  
D.O., New York College of  
Osteopathic Medicine, 1988

**Christopher D. Patterson**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of South Florida, 1989  
D.O., Southeastern University  
College of Osteopathic Medicine, 1993

**Frank J. Pearl**

*Clinical Professor, Cardiology*  
B.A., University of Pennsylvania, 1969

M.D., Jefferson Medical College, 1974

**Eduardo I. Pena**

*Clinical Assistant Professor, Psychiatry*  
B.A., State University of New York, 1985  
B.A., State University of New York, 1989

**Matthew G. Penson**

*Clinical Assistant Professor, Pediatrics*  
B.A., University of Virginia, 1994  
M.D., University of Florida  
College of Medicine, 1998

**Laura J. Peralta**

*Clinical Assistant Professor,  
Family Medicine*  
B.S.N., Texas Christian University, 1979  
D.O., Southeastern University  
College of Osteopathic Medicine, 1988

**Agueda Perez**

*Adjunct Instructor, Cariology and  
Restorative Dentistry,  
Division of Primary Care*  
D.M.D., Nova Southeastern  
University, 2010

**Donny Perez**

*Clinical Instructor, Family Medicine*  
B.S., Florida Atlantic University, 1999  
D.O., Philadelphia College of Osteopathic  
Medicine, 2003

**Hugo N. Perez**

*Clinical Assistant Professor, Pediatrics*  
M.D., Universidad Central del Este  
Dominican Republic, 1980

**Joseph R. Perez**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., Florida International University, 1996  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 2001

**Manuel Perez-Menendez**

*Clinical Assistant Professor, Radiology*  
M.D., Universidad de Salamanca, 1972

**David E. Perloff**

*Clinical Assistant Professor,  
Internal Medicine*

B.G.S., University of Miami, 1987  
M.D., University of Miami  
School of Medicine, 1991

**Stewart I. Perlow**

*Adjunct Faculty, Cariology and  
Restorative Dentistry*  
D.M.D., Tufts University, 1968

**Joshua A. Perper**

*Clinical Professor, Surgery  
Adjunct Professor, Public Health*  
M.D., Medical School  
of Hebrew University, 1960  
M.S., John Hopkins University School of  
Hygiene & Public Health, 1969

**Dana E. Perrin**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Colorado State University, 1974  
M.A., University of California, 1976  
M.D., University of South Florida College  
of Medicine, 2002

**William A. Petersen**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*  
M.D., University of Texas Medical  
School, 1977

**Richard K. Peterson**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of Florida, 1987  
M.D., University of Florida, 1992

**Vincent W. Petraroli**

*Adjunct Assistant Professor,  
Biomedical Informatics*  
B.S., Nova Southeastern University, 1994  
M.S., Nova Southeastern University, 1996  
Ph.D., Nova Southeastern University 1999

**Anita L. Petteway**

*Clinical Instructor, Internal Medicine*  
B.S., Florida Agricultural & Mechanical  
University, 1989  
M.D., University of Maryland School of  
Medicine, 1993

**Samuel A. Pettina**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., St. Vincent College, 1967  
D.O., Chicago College of  
Osteopathic Medicine, 1972

**Ramsey K. Pevsner**

*Clinical Assistant Professor, Psychiatry*  
R.N., Rush Presbyterian, 1967  
B.S., Nova University, 1975  
M.S., Nova University, 1977  
Ph.D., Nova University, 1981

**Eli J. Piatigorsky**

*Clinical Assistant Professor,  
Dermatology*  
B.A., University of Minnesota, 1996  
M.D., University of Minnesota, 2001

**Yves E. Pierre-Louis**

*Clinical Assistant Professor,  
Family Medicine*  
M.D., Haiti State University  
Medical School, 1980

**Anthony B. Pietroniro**

*Clinical Assistant Professor, Pediatrics*  
B.S., Barry University, 1985  
M.D., Tulane University School of  
Medicine, 1989

**Antoinette C. Pignataro**

*Clinical Assistant Professor,  
Internal Medicine*  
B.A., Manhattanville College, 1979  
M.D., San Juan Bautista School of  
Medicine, 1983

**Alan B. Pillersdorf**

*Clinical Assistant Professor, Surgery*  
B.S., State University of New York, 1973  
M.D., Georgetown University  
School of Medicine, 1980

**Mathias Piskur**

*Clinical Assistant Professor, Cardiology*  
B.A., Queens College, 1964  
M.D., University of Bologna, 1970

**David Z. Pizzimenti**

*Clinical Assistant Professor,  
Internal Medicine*

B.S., University of Florida, 1997  
D.O., Nova Southeastern University, 2002

**Tomas A. Pla**

*Clinical Instructor, Internal Medicine*

B.S., University of Puerto Rico, 1962  
M.D., University of Madrid School of  
Medicine, 1967

**Daniel J. Plasencia**

*Clinical Associate Professor, Pediatrics*

M.D., Doctor of Medicine and Surgery  
Medical School, 1975

**Melvin Platt**

*Adjunct Professor, Prosthodontics*

D.D.S., University of Detroit, 1955

**Juan L. Poggio**

*Clinical Assistant Professor, Surgery*

M.D., Universidad del Salvador Medical  
School, 1996

M.B.S., Mayo Graduate School, 1999

**Joel S. Policzer**

*Clinical Assistant Professor,  
Hematology/Oncology*

B.S., Syracuse University, 1970  
M.S., University of Brussels, 1974

M.D., College of Medicine and  
Dentistry of New Jersey, 1976

**Marc Pomerantz**

*Adjunct Instructor, Prosthodontics,  
Division of Primary Care*

D.M.D., University of Pittsburgh, 1966  
G.P.R. Mount Sinai Hospital, 1967

**Heidi A. Pomm**

*Clinical Associate Professor,  
Family Medicine*

B.A., Florida International University, 1990  
M.A., California School of Professional  
Psychology, 1994

Ph.D., California School of Professional  
Psychology, 1996

**Ian Pop**

*Clinical Assistant Professor, Psychiatry*

M.D., Institute of Medicine and  
Pharmacology of Cluj, 1966

**Robert J. Poppiti**

*Clinical Professor, Surgery*

B.S., University of Miami, 1975  
M.D., Universidad Nacional, 1978

**Regina Portcarrero**

*Clinical Assistant, Optometry*

O.D., Nova Southeastern University  
College of Optometry, 2002

**Manuel Porth**

*Clinical Assistant Professor,  
Orthopedic Surgery*

M.D., Wayne State University, 1968

**Seth H. Portnoy**

*Clinical Assistant Professor,  
Family Medicine*

B.A., Florida Atlantic University, 1991  
D.O., Nova Southeastern University, 1996

**Nicholas S. Potochny**

*Clinical Assistant Professor, Physical  
Medicine and Rehabilitation*

B.S., Pennsylvania State University, 1992  
D.O., University of New England College  
of Osteopathic Medicine, 1996

**Donna R. Potts**

*Clinical Assistant Professor,  
Family Medicine*

A.A., University of South Florida, 1980  
B.S., Florida State University, 1982

M.D., University of South Florida  
College of Medicine, 1992

**Evangelos G. Poulos**

*Clinical Assistant Professor, Surgery*

B.S., University of Miami, 1976  
M.D., University of Miami  
School of Medicine, 1976

**June A. Powell**

*Clinical Assistant Professor, Psychiatry*

B.S., University of Mississippi  
M.D., University of Mississippi School of  
Medicine, 1968

**Michelle C. Powell**

*Clinical Assistant Professor,  
Family Medicine*

B.S., Florida International University, 1989  
D.O., Nova Southeastern University, 1995  
M.P.H., Nova Southeastern University, 2002

**Nora L. Powell**

*Adjunct Clinical Hygienist Instructor,  
Periodontology,  
Division of Surgical Sciences*

A.S., New York Community College, 1979

**Robert Powell**

*Adjunct Faculty, Endodontics*

D.D.S., Medical College of Virginia, 1976

**Eroston A. Price**

*Clinical Assistant Professor, Surgery*

B.S., Mount Saint Mary's College, 1982  
M.D., University of Pittsburgh  
School of Medicine, 1988

**Victoria Prignanc**

*Adjunct Professor, Occupational Therapy*

B.S., University of Wisconsin—  
Milwaukee, 1994

M.S., University of Vermont, 2001  
Ph.D., Nova Southeastern University, 2007

**Melvin M. Propis**

*Clinical Assistant Professor, Surgery*

B.A., Syracuse University, 1964  
M.D., Hadassah Medical School, 1972

**Abby A.R. Pudup**

*Clinical Assistant Professor, Pediatrics*

B.A., Wake Forest University, 1985  
D.O., University of Medicine and Dentistry  
of New Jersey, 1991

**Ivan Puente**

*Clinical Assistant Professor, Surgery*

B.S., University of Michigan, 1983  
M.D., University of California, 1987

**Sandra V. Puerto**

*Adjunct Assistant Professor, Oral and  
Maxillofacial Radiology, Diagnostic  
Sciences, Division of Primary Care*

D.D.S., Universidad Pontificia Javeriana  
(Colombia), 1992

**Isidro Pujol**

*Clinical Assistant Professor,  
Internal Medicine*

B.S., University of Miami, 1988  
D.O., Nova Southeastern University College  
of Osteopathic Medicine, 1994

**Subhash R. Puranik**

*Clinical Assistant Professor, Surgery*

M.D., B.J. Medical College, 1963

**Alexander Pushka**

*Clinical Assistant Professor, Psychiatry*

M.D., Ivano-Frankovsky Medical  
Institute, 1980

**You-Wen Qian**

*Adjunct Associate Professor,  
Biomedical Informatics*

M.D., Wannan Medical College, 1989  
M.S., Shanghai Medical University, 1994  
M.S., University of California—Davis, 2002

**Jose R. Quero**

*Clinical Assistant Professor,  
Internal Medicine*

B.S., Loyola University, 1979  
M.D., Rush Medical College, 1984

**Georges Quesnel**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*

M.D., Université de Montréal, 1965

**Hugo F. Quevedo**

*Adjunct Faculty,  
Physician Assistant Studies*

B.S., Universidad de Chile, 1981  
M.A., San Jose State University, 1992  
P.A., Miami Dade Community College, 2001

**Lantie Quinones**

*Clinical Instructor, Psychiatry*

B.S., Vanderbilt University, 1994  
M.D., University of Florida College of  
Medicine, 2002

**Nicole Quint**

*Clinical Faculty, Occupational Therapy*

B.S., University of Missouri, 1994  
M.O.T., Nova Southeastern University, 2003

- Tobias Quintana-White**  
*Adjunct Instructor, Cariology and Restorative Dentistry*  
 D.D.S., Central University of Venezuela, 1994
- Zafar I. Qureshi**  
*Clinical Assistant Professor, Pediatrics*  
 M.D., Sindh Medical College, 1989
- Harold S. Rabinowitz**  
*Clinical Professor, Dermatology*  
 B.A., Princeton University, 1973  
 M.D., University of Miami School of Medicine, 1977
- Mark L. Rabinowitz**  
*Clinical Assistant Professor, Obstetrics and Gynecology*  
 M.D., University of Miami School of Medicine, 1979
- Michael Radu**  
*Adjunct Instructor, Prosthodontics, Division of Primary Care*  
 D.D.S., University of Bucharest, 1979  
 M.S., Lynn University, 2000
- Frederick Rahe**  
*Adjunct Assistant Professor, Audiology*  
 B.A., University of Florida, 1975  
 M.A., University of Florida, 1976  
 Au.D., Nova Southeastern University, 2000
- Kenneth A. Ramey**  
*Clinical Assistant Professor, Osteopathic Principles and Practice*  
 D.O., Chicago College of Osteopathic Medicine, 1994
- Nina C. Ramirez**  
*Clinical Assistant Professor, Pediatrics*  
 B.A., Fordham University, 1953  
 M.D., Cornell University, 1978
- Otto M. Ramos**  
*Clinical Associate Professor, Pediatrics*  
 M.D., University of Santiago, 1977
- M. Vic Rampertaap**  
*Adjunct Faculty, Prosthodontics*  
 D.D.S., Howard University, 1986
- Eileen M. Ramsaran**  
*Clinical Instructor, Internal Medicine*  
 M.D., St. George's University School of Medicine, 1991
- Elaine M. Rancatore**  
*Clinical Assistant Professor, Family Medicine*  
 B.A., Boston University, 1980  
 M.S., Fairleigh Dickinson University, 1982  
 M.D., New York University, 1984
- Theyyar V. Rangarajan**  
*Adjunct Faculty, Prosthodontics, Division of Primary Care*  
 M.B.A., New York University, 1981  
 D.D.S., New York University, 1989
- Jorge Rangel**  
*Clinical Assistant Professor, Family Medicine*  
 M.D., Pontificia Universidad Javeriana, 1979  
 M.P.H., University of Missouri, 1990
- Robert F. Raspa**  
*Clinical Assistant Professor, Family Medicine*  
 B.S., Fairmont State College, 1978  
 M.D., West Virginia University, 1982
- Ranga Rathakrishnan**  
*Clinical Assistant Professor, Internal Medicine*  
 B.A., University of Oklahoma, 1988  
 M.D., University of Oklahoma College of Medicine, 2000
- Kenneth R. Ratzan**  
*Clinical Professor, Internal Medicine*  
 M.D., Harvard Medical School, 1965
- Sergio Rauchwerger**  
*Assistant Professor, Prosthodontics*  
 D.D.S., Universidad Central de Venezuela, 1995  
 M.M.Sc., Harvard University, 2000

**Michael A. Ravitsky**

*Clinical Assistant Professor, Cardiology*  
B.S., Delaware Valley College, 1969  
D.O., Kansas City College of  
Osteopathic Medicine, 1973

**Lionel P. Raymon**

*Clinical Assistant Professor, Pathology*  
B.S., Lycee Bouchardon, 1983  
Pharm.D., University of Bourgogne School  
of Medicine and Pharmacy, 1989  
Ph.D., University of Maryland, 1994

**Melvyn H. Rech**

*Clinical Professor, Orthopedic Surgery*  
A.B., Temple University, 1960  
D.O., Kirksville College of  
Osteopathic Medicine, 1965  
Fellow, American College  
of Osteopathic Surgeons  
Fellow, American Osteopathic  
Academy of Orthopedics

**Dianne Rehtine**

*Clinical Assistant Professor,  
Family Medicine*  
M.D., West Virginia University  
School of Medicine, 1965

**Monica A. Recine**

*Clinical Assistant Professor, Pathology*  
M.D., Central University of Venezuela, 1993

**Jagadeesh C. Reddy**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., University of Bangalore, 1996  
M.D., Ambedkar Medical College, 1996

**Alfredo Rego**

*Clinical Assistant Professor, Surgery*  
B.S., English American College of  
Guatemala, 1977  
M.D., University of San Carlos of  
Guatemala, 1984  
Ph.D., Georgetown University School of  
Medicine, 1990

**Marcos Rejtman**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of Florida, 1990

D.O., Nova Southeastern University, 1994

**Leonid Remenson**

*Clinical Assistant Professor, Psychiatry*  
M.D., Tomsk Medical Institute, 1984

**Mark L. Remz**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., State University of New York, 1980  
D.O., New York College of Osteopathic  
Medicine, 1985

**Stephen Resnick**

*Adjunct Instructor, Prosthodontics,  
Division of Primary Care*  
D.M.D., Fairleigh Dickinson University, 1974

**Warren Reuther**

*Clinical Assistant Professor,  
Internal Medicine*  
B.A., Loyola University, 1988  
B.S., Tulane University, 1990  
M.D., Louisiana State University School of  
Medicine, 1994

**Mark A. Revels**

*Adjunct Assistant Professor,  
Biomedical Informatics*  
B.S., University of Kentucky, 1988  
M.S., University of Denver, 1991  
Ph.D., Indiana State University, 2007

**Luis C. Rey-Martinez**

*Clinical Assistant Professor, Pathology*  
M.D., Universidad del Norte, 1988

**Cheryl Rhoads**

*Adjunct Clinical Hygienist Instructor,  
Periodontology,  
Division of Surgical Sciences*  
B.S., West Virginia University, 1968

**Jeffrey A. Rich**

*Clinical Assistant Professor,  
Osteopathic Principles and Practice*  
B.S., University of Florida, 1988  
D.O., Southeastern University  
College of Osteopathic Medicine, 1992

**Marvin Richards**

*Adjunct Instructor, Prosthodontics,  
Division of Primary Care*  
D.D.S., New York University, 1967

**Willie F. Richardson, Jr.**

*Clinical Assistant Professor,  
Dermatology*  
B.S., Pembroke State University, 1996  
M.D., East Carolina University, 2000

**Paul T. Richman**

*Clinical Assistant Professor,  
Oral and Maxillofacial Surgery*  
D.D.S., University of Michigan  
School of Dentistry, 1958  
M.S., University of Illinois, 1961

**Francisco J. Rincon**

*Clinical Assistant Professor,  
Family Medicine*  
M.D., Universidad Santiago  
de Compostela, 1970

**Jeannette M. Rios**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., Florida International University, 2000  
M.P.H., Nova Southeastern University, 2006  
D.O., Nova Southeastern University, 2006

**Maria A. Rivera**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*  
B.S.N., Adelphi University, 1974  
CNM, State University of New York  
Downstate Medical Center, 1980

**Kristie Rivers**

*Clinical Assistant Professor, Pediatrics*  
B.S., Wake Forest University, 1997  
M.D., University of Miami School of  
Medicine, 2001

**Daniel Rivlin**

*Clinical Assistant Professor,  
Dermatology*  
B.S., University of Miami, 1983  
M.D., New York University School of  
Medicine, 1987

**David L. Roach**

*Adjunct Assistant Professor, Public Health*  
B.A., Emory University, 1969

**Elysa Roberts**

*Adjunct Professor,  
Occupational Therapy*  
B.A., Syracuse University, 1990  
M.S., Florida International University, 1994  
Ph.D., Nova Southeastern University, 2001

**Joel Roberts**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Washington College, 1980  
D.O., Kirksville College of  
Osteopathic Medicine, 1984

**Paul J. Roberts III**

*Clinical Assistant Professor, Psychiatry*  
B.S., University of Central Florida, 1981  
D.O., Southeastern University  
College of Osteopathic Medicine, 1985

**Sherry Robins**

*Adjunct Faculty, Health Science*  
A.A.S., Delta College, 1977  
B.S.N., Saginaw Valley State University, 1989  
M.S., University of Michigan, 1992  
D.H.Sc., Nova Southeastern  
University, 2007

**Edgar B. Rodas**

*Clinical Assistant Professor, Surgery*  
M.D., Universidad de Cuenca-Facultad de  
Medicina, 1995

**Raul A. Rodas**

*Clinical Assistant Professor, Surgery*  
B.S., University of Oregon, 1978  
D.O., Michigan State University, 1983

**Ellen B. Rodman**

*Clinical Assistant Professor, Pediatrics*  
B.A., Hampshire College, 1986  
D.O., Chicago College of Osteopathic  
Medicine, 1994

**Armando V. Rodriguez**

*Clinical Assistant Professor,  
Internal Medicine*



B.S., Miami Dade  
Community College, 1980  
M.D., Technological Institute  
of Santo Domingo, 1985

**Ivan D. Rodriguez**  
*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of Puerto Rico, 1982  
Ph.D., Michigan State University, 1987  
D.O., Nova Southeastern University, 1998

**Juan Carlos Rodriguez**  
*Clinical Assistant Professor,  
Pulmonary Medicine*  
M.D., Rosario University, 1997

**Martha M. Rodriguez**  
*Clinical Instructor, Internal Medicine*  
B.S., Seton Hall University, 1983  
M.D., Universidad Central del Este, 1987

**Ofer Rodriguez**  
*Clinical Instructor, Surgery*  
D.O., New York College of  
Osteopathic Medicine, 1996

**Michael J. Rodriguez**  
*Clinical Assistant Professor,  
Otolaryngology*  
B.S., Florida International University, 1997  
M.D., University of Miami School of  
Medicine, 2003

**Richard Rodriguez**  
*Clinical Assistant Professor, Surgery*  
B.S., University of Miami, 1984  
M.P.H., University of Miami, 1986  
D.O., Philadelphia College of  
Osteopathic Medicine, 1990

**Hector M. Rodriguez-Cortes**  
*Clinical Assistant Professor, Pediatrics*  
M.D., University of Puerto Rico  
School of Medicine, 1991

**Julio H. Rodriguez-Novo**  
*Clinical Assistant Professor, Pediatrics*  
B.H.S., Florida International  
University, 1976  
M.D., Universidad Autonoma  
de Guadalajara, 1978

**Ronald Rohan**  
*Adjunct Instructor, Cariology and  
Restorative Dentistry*  
D.D.S., Emory University, 1967

**Douglas Rolfe**  
*Adjunct Faculty, Prosthodontics,  
Division of Primary Care*  
D.D.S., Ohio State University, 1985

**Eloy Roman**  
*Clinical Assistant Professor,  
Internal Medicine*  
M.D., Central University of the East  
School of Medicine, 1999

**Paul L. Rondino**  
*Clinical Assistant Professor, Cardiology*  
M.S., University of Miami, 1986  
M.D., University of Miami, 1989

**Shari Rone-Adams**  
*Adjunct Professor, Physical Therapy*  
B.S./P.T., University of Miami, 1985  
M.S., Nova University, 1988  
D.B.A., Nova Southeastern University, 2002

**Patricia L. Rooney**  
*Clinical Assistant Professor, Surgery*  
B.S., Hillsdale College, 1977  
D.O., University of Health Sciences  
College of Osteopathic Medicine, 1982

**Orestes G. Rosabal**  
*Clinical Assistant Professor,  
Orthopedic Surgery*  
B.S., Polytechnic Institute of Brooklyn, 1973  
M.D., State University of New York, 1997

**Enrique L. Rosario**  
*Adjunct Assistant Professor,  
Public Health*  
B.A., Florida International University, 2004  
Ph.D., Georgetown University, 2008

**Joel B. Rose**  
*Clinical Assistant Professor,  
Family Medicine*  
D.O., West Virginia School of  
Osteopathic Medicine, 1983

**Norman Rose**

*Clinical Professor, Surgery*  
B.S., Marietta College, 1959  
D.O., Des Moines College of  
Osteopathic Medicine & Surgery, 1963

**Richard Rosen**

*Clinical Assistant Professor,  
Family Medicine*  
D.O., Philadelphia College  
of Osteopathic Medicine, 1975

**Amy Rosenberg**

*Adjunct Faculty, Physical Therapy*  
B.S. PT, Boston University, 1977  
M.B.A., University of Miami, 1984

**David Rosenberg**

*Clinical Assistant Professor, Pediatrics*  
B.S., Florida International University, 1976  
M.D., American University of the  
Caribbean, 1984

**Boaz S. Rosenblat**

*Clinical Assistant Professor, Family  
Medicine*  
B.A., Columbia University, 1994  
M.D., State University of New York, 1998

**Morton Rosenbluth**

*Clinical Assistant Professor, Periodontics*  
D.D.S., New York University, 1946  
CT—Periodontics, New York University, 1957

**Robert S. Rosenstein**

*Clinical Assistant Professor, Cardiology*  
M.D., University of Louisville Medical  
School, 1978

**Ian Ross**

*Adjunct Faculty, Physical Therapy*  
B.S., Montclair State, 1983  
M.S., Montclair State, 1985  
M.S., P.T., Hahnemann University, 1988  
Ed.D., Nova Southeastern University, 2001

**Scott Ross**

*Adjunct Instructor, Periodontology,  
Division of Surgical Sciences*  
D.D.S., Virginia Commonwealth  
University, 1975

**Stephen L. Roth**

*Clinical Assistant Professor, Cardiology*  
B.A., New York University  
Heights College, 1970  
M.D., University of Pennsylvania  
School of Medicine, 1976

**Sharon Rothwell**

*Adjunct Faculty Member, Nursing*  
B.S.N., University of South Florida, 1993  
M.S.N., University of Miami, 1995

**Mark S. Rotlewicz**

*Clinical Assistant Professor, Pediatrics*  
M.D., Colegio Mayor de Nuestra Senora  
del Rosario, 1980

**Taras Roud**

*Adjunct Faculty, Endodontics*  
D.M.D., Nova Southeastern University, 2000

**Howard D. Routman**

*Clinical Assistant Professor,  
Orthopedic Surgery*  
B.A., University of Florida, 1991  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1995

**Patricia A. Rowe-King**

*Clinical Assistant Professor, Pediatrics*  
B.A., Boston University, 1984  
M.D., University of Miami  
School of Medicine, 1988

**Daryl Roy**

*Adjunct Faculty, Prosthodontics*  
D.M.D., Boston University, 1986

**Richard Rozencaig**

*Clinical Assistant Professor,  
Orthopedic Surgery*  
B.S., University of Miami, 1988  
M.D., University of Miami  
School of Medicine, 1992

**Paul L. Rozynes**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., University of Florida, 1971  
M.D., University of Miami School of  
Medicine, 1975

**Mark A. Rubenstein**

*Clinical Associate Professor,  
Family Medicine*

B.S., Tulane University

School of Engineering, 1985

M.D., State University of New York Health  
Science Center, 1989

**Jose A. Rubero**

*Clinical Assistant Professor, Family  
Medicine*

B.S., University of Puerto Rico, 1992

M.D., Universidad Central del Caribe, 1996

**Darin M. Rubin**

*Clinical Assistant Professor,  
Family Medicine*

B.A., State University  
of New York, 1988

D.O., New York College of  
Osteopathic Medicine, 1992

**Adam J. Rubinstein**

*Clinical Assistant Professor, Surgery*

B.S., Brooklyn College, 1992

M.D., St. Louis University  
of Medicine, 1996

**Michael J. Ruddy**

*Clinical Assistant Professor,  
Orthopedic Surgery*

B.S., Villanova University, 1973

M.D., Villanova University, 1979

**Joel L. Rush**

*Clinical Professor,  
Orthopedic Surgery*

B.A./B.S., Washington University, 1977

D.O., Southeastern University  
College of Osteopathic Medicine, 1985

**Joshua Rycus**

*Clinical Assistant Professor,  
Family Medicine*

B.S., Michigan State University, 1996

D.O., Michigan State University  
College of Osteopathic Medicine, 2001

**Maria Rynning**

*Adjunct Faculty Member, Nursing*

B.S.N., Florida Atlantic University College  
of Nursing, 2001

M.S.N., Florida Atlantic University  
College of Nursing, 2004

**Susan Saba**

*Adjunct Faculty Member, Nursing*

B.S.N., Nova Southeastern University, 2004

M.S.N., Nova Southeastern University, 2006

**Carl H. Sadowsky**

*Clinical Associate Professor, Neurology*

B.S., State University of New York  
at Stony Brook, 1967

M.D., Cornell University, 1971

**Gennaro Saggiocca**

*Clinical Assistant Professor, Nephrology*

B.S., Rensselaer Polytechnic  
Institute, 1976

M.D., University of Padova  
School of Medicine, 1985

**Bhagirathy Sahasranaman**

*Clinical Assistant Professor, Psychiatry*

M.D., VSS Medical College, 1981

**Flora C. Sakornsin**

*Clinical Assistant Professor, Pediatrics*

M.D., Far Eastern University, 1961

**Eli R. Saleeby**

*Clinical Assistant Professor,  
Dermatology*

B.S., Columbia University, 1977

M.D., Jefferson Medical College, 1981

**Mustafa A. Saleh**

*Adjunct Assistant Professor,  
Public Health*

D.V.M., Cairo Veterinary Medical  
School, 1973

M.H.S.A., Nova Southeastern  
University, 1994

M.P.H., Nova Southeastern University, 1999

**Emery M. Salom**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*

B.S., University of Miami, 1993

M.D., University of Miami School of  
Medicine, 1997

**David B. Saltzman**

*Clinical Assistant Professor,  
Pulmonary Medicine*  
B.A., Temple University, 1967  
D.O., Philadelphia College of  
Osteopathic Medicine, 1972

**Susan G. Salzman**

*Adjunct Clinical Hygienist Instructor,  
Periodontology,  
Division of Surgical Sciences*  
A.S., New York Community College, 1979

**Snehprabha V. Samant**

*Clinical Instructor, Internal Medicine*  
M.D., Bombay University, 1971

**Harvey B. Samowitz**

*Clinical Assistant Professor,  
Urology*  
B.S., Duke University, 1980  
M.D., University of Connecticut  
School of Medicine, 1984

**Marian A. Sampson**

*Clinical Instructor, Obstetrics and  
Gynecology*  
B.S., Jackson State University, 1993  
M.D., Meharry Medical College, 2005

**Jose U. Sanchez**

*Clinical Assistant Professor,  
Internal Medicine*  
M.D., Superior Institute of Medical  
Sciences of Havana, 1986

**Ramon Sanchez**

*Adjunct Associate Professor,  
Prosthodontics, Division of Primary Care*  
D.D.S., University of Iowa College of  
Dentistry, 1967

**Mario J. Sanchez-Martinez**

*Clinical Assistant Professor, Psychiatry*  
M.D., Universidad Central del Este, 1984

**Diana M. Sanchez-Steiner**

*Clinical Assistant Professor, Psychiatry*  
M.D., Colegio Mayor del Rosario  
University, 1994

**Kosmas M. Sarantis**

*Clinical Assistant Professor,  
Internal Medicine*  
M.D., University of Athens, 1972

**Angeleke Saridakis**

*Clinical Assistant Professor, Surgery*  
B.A., Cornell University  
College of Arts and Sciences, 1984  
M.D., University of Miami  
School of Medicine, 1988  
M.P.H., Harvard School of  
Public Health, 2001

**Elena Sarmiento**

*Clinical Assistant Professor, Psychiatry*  
M.D., Russian People Friendship  
University School of Medicine, 1982

**Michael J. Sasoni**

*Clinical Assistant Professor, Family  
Medicine*  
B.S., Florida Atlantic University, 1997  
D.O., Nova Southeastern University, 2002

**James Satovsky**

*Clinical Assistant Professor, Endodontics*  
D.D.S., University of Michigan  
School of Dentistry, 1971  
M.S., University of Michigan, 1974

**Sandra Savinelli**

*Adjunct Faculty, Health Science*  
B.S., Kean College, 1984  
M.A., Marywood College, 1990  
SLP.D., Nova Southeastern  
University, 2001

**Eugene J. Sayfie**

*Clinical Associate Professor, Cardiology*  
B.A., West Virginia University, 1956  
M.D., Washington University  
School of Medicine, 1960

**Paul N. Schacknow**

*Clinical Associate  
Professor, Ophthalmology*  
B.S., Brooklyn College, 1970  
Ph.D., City University  
of New York, 1976  
M.D., University of Miami  
School of Medicine, 1983

**Michael Scharmatt**

*Adjunct Instructor, Cariology and Restorative Dentistry*  
D.D.S., Howard Dental College, 1971

**Brent M. Schillinger**

*Clinical Assistant Professor, Dermatology*  
B.A., State University of New York, 1975  
M.D., State University of New York, 1979

**Jeffrey Schneider**

*Clinical Assistant Professor, Internal Medicine*  
B.A., University of Pennsylvania, 1988  
M.D., Mount Sinai School of Medicine, 1992

**Ricky M. Schneider**

*Clinical Assistant Professor, Internal Medicine*  
M.D., Yale University School of Medicine, 1977

**Wendy Schneider**

*Clinical Instructor, Preventive Medicine*  
B.S.N., SUNY Downstate Medical Center, 1974  
M.S.N., University of Pennsylvania School of Nursing, 1976

**Kathleen Schrank**

*Clinical Professor, Family Medicine*  
B.S., University of Wisconsin, 1972  
M.D., University of Miami School of Medicine, 1979

**Michael Schulman**

*Clinical Assistant Professor, Internal Medicine*  
B.A., State University of New York—Binghamton, 1983  
D.O., University Health Sciences College of Osteopathic Medicine, 1988

**Aaron Schwartz**

*Clinical Assistant Professor, Pulmonary Medicine*  
B.S., University of Miami, 1980  
D.O., Philadelphia College of Osteopathic Medicine, 1984

**Ellen Schwartz**

*Adjunct Clinical Hygienist Instructor, Periodontology, Division of Surgical Sciences*  
B.S., St. Petersburg College, 2008

**Gary B. Schwartz**

*Clinical Assistant Professor, Orthopedic Surgery*  
B.S., Fairleigh Dickinson University, 1976  
M.D., New York Medical College, 1980

**Leslie H. Schwartz**

*Clinical Associate Professor, Psychiatry*  
A.B., Columbia University, 1967  
M.D., University of Pennsylvania, 1971

**Todd S. Schwartz**

*Clinical Assistant Professor, Family Medicine*  
B.S., University of Michigan, 1983  
M.D., University of Cincinnati School of Medicine, 1987

**Hartley A. Schwartzberg**

*Clinical Professor, Dermatology*  
B.A., University of Rochester, 1963  
D.O., University of Osteopathic Medicine and Health Sciences, 1967

**Roger K. Schwartzberg**

*Clinical Assistant Professor, Internal Medicine*  
B.A., Syracuse University, 1970  
D.O., Michigan State University College of Osteopathic Medicine, 1973

**Kevin J. Schwichten**

*Clinical Assistant Professor, Family Medicine*  
B.S., Montana State University, 1999  
M.D., Oregon Health and Science University, 2004

**James J. Sciote**

*Clinical Associate Professor, Preventive Medicine*  
B.S., Geneva College, 1982  
D.D.S., University of North Carolina, 1986  
M.S., University of Michigan, 1989  
Ph.D., University of Michigan, 1992

**Anthony Sclar**

*Adjunct Faculty, Diagnostic Sciences,  
Division of Primary Care*  
D.M.D., University of Florida, 1984

**Steven R. Scott**

*Clinical Instructor, Family Medicine*  
B.A., University of Florida, 1995  
M.B.A., Wake Forest University  
School of Management, 2000  
M.D., Wake Forest University  
School of Medicine, 2000

**Robert H. Sculthorpe**

*Clinical Professor, Anesthesiology*  
B.S., University of Nebraska, 1970  
D.O., Philadelphia College of  
Osteopathic Medicine, 1974

**Mona Sedrak**

*Adjunct Faculty, Health Science*  
B.S., University of Texas South Western  
Medical Center at Dallas, 1990  
M.S., AT Stills University, 2000  
Ph.D., Walden University, 2003

**Richard F. Seelig**

*Adjunct Assistant Professor,  
Biomedical Informatics*  
B.S., George Washington University, 1967  
M.D., University of Medicine and  
Dentistry of New Jersey, 1973

**Romualdo J. Segurola, Jr.**

*Clinical Assistant Professor, Surgery*  
M.D., Universidad Nacional Pedro  
Henriquez Urena, 1992

**Andrew A. Seltzer**

*Clinical Assistant Professor,  
Orthopedic Surgery*  
B.S., Michigan State University, 1979  
D.O., University of Osteopathic  
and Health Sciences, 1983

**James E. Seltzer**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*  
B.A., Lake Forest College, 1971  
D.O., Chicago College of Osteopathic  
Medicine, 1978

**Paul D. Seltzer**

*Clinical Assistant Professor,  
Orthopedic Surgery*  
B.S., Eastern Michigan University, 1976  
D.O., Philadelphia College of  
Osteopathic Medicine, 1980

**Robert Selz**

*Adjunct Faculty, Prosthodontics*  
D.D.S., New York University College of  
Dentistry, 1963  
M.S., New York University Graduate  
School of Arts and Sciences, 1966  
CT—Prosthodontics, New York University  
College of Dentistry, 1966  
Diplomate, American Board of  
Prosthodontics, 1970

**Michele M. Sepe**

*Adjunct Clinical Hygienist Instructor,  
Periodontology,  
Division of Surgical Sciences*  
A.S., Farmingdale State University, 1988

**Carlos A. Sesin**

*Clinical Assistant Professor,  
Internal Medicine*  
B.A., Cornell University, 1995  
M.D., University of Medicine and  
Dentistry of New Jersey, 1999

**Robert G. Sexton**

*Clinical Assistant Professor, Radiology*  
B.A., University of Mississippi, 1995  
M.D., University of Tennessee Medical  
School, 2001

**Mark S. Shachner**

*Clinical Associate Professor, Surgery*  
M.D., Yale University  
School of Medicine, 1985

**Robert I. Shaffer**

*Clinical Assistant Professor,  
Internal Medicine*  
M.D., Albany Medical College, 1992

**Gilbert A. Shamas**

*Clinical Assistant Professor, Obstetrics  
and Gynecology*  
B.A., Emory University, 1968  
M.D., Emory University, 1973

**Susan M. Shamaskin**

*Clinical Assistant Professor, Pediatrics*

B.S., State University of New York—  
Binghamton, 1982

D.O., New York College of  
Osteopathic Medicine, 1988

**Robbie E. Shamet**

*Adjunct Clinical Hygienist Instructor,  
Periodontology, Division of Surgical  
Sciences*

A.S., Broward Community College, 1967

B.S., University of Kentucky, 1969

**Martin Shansky**

*Clinical Assistant Professor,  
Internal Medicine*

B.S. (Pharm.), Philadelphia College  
of Pharmacy and Sciences, 1969

M.D., Temple University  
School of Medicine, 1974

**Craig S. Shapiro**

*Clinical Assistant Professor,  
Otorhinolaryngology*

B.S., University of Florida, 1985

D.O., Southeastern University  
College of Osteopathic Medicine, 1989

**Larry Shapiro**

*Adjunct Instructor, Periodontology,  
Division of Surgical Sciences*

D.D.S., Temple University, 1974

Certificate in Periodontics, University of  
Pittsburgh, 1976

**Marc S. Shapiro**

*Clinical Assistant Professor,  
Internal Medicine*

B.S., University of Miami, 1981

D.O., Philadelphia College of Osteopathic  
Medicine, 1985

**Bruno Sharp**

*Adjunct Instructor, Prosthodontics,  
Division of Primary Care*

D.D.S., Virginia Commonwealth  
University, 1992

M.S., University of Florida, 1997

**Martin J. Sherman**

*Clinical Assistant Professor, Pediatrics*

A.B., Hamilton College, 1970

M.D., Tufts University School of  
Medicine, 1974

**P. Lee Shettle**

*Clinical Assistant Professor,  
Ophthalmology*

B.S., Northeast Missouri  
State University, 1984

D.O., Kirksville College of  
Osteopathic Medicine, 1988

**Philip Leroy Shettle**

*Clinical Assistant Professor,  
Ophthalmology*

B.S., Stetson University, 1962

D.O., Kirksville College of  
Osteopathic Medicine, 1964

**Sumeet V. Shetty**

*Clinical Assistant Professor,  
Internal Medicine*

M.D., Kasturba Medical College, 1995

**Kedar Shetty**

*Clinical Assistant Professor, Nephrology*

M.D., Seth G.S. Medical College, 1994

**Lata Shintre**

*Clinical Assistant Professor, Pediatrics*

M.D., Terna Medical College, 1999

**Barry Shipman**

*Adjunct Instructor, Prosthodontics,  
Division of Primary Care*

D.M.D., Tufts University, 1969

Certificate, Prosthodontics, Kingsbrook  
Jewish Medical Center, 1972

Certificate, Maxillofacial Prosthodontics,  
State University of New York, 1973

**Kevin B. Shrock**

*Clinical Assistant Professor,  
Orthopedic Surgery*

B.S., Yale University, 1982

M.D., Stanford University  
School of Medicine, 1987

**Alexander Shteiman**

*Clinical Instructor, Internal Medicine*

M.D., Kaunas Medical Institute, 1984

**Randall Shults**

*Adjunct Assistant Professor,  
Orthodontics*

D.D.S., University of Colorado, 1984  
Ph.D., University of North Carolina, 1989  
Certificate, Orthodontics, University of  
North Carolina, 1989

**Robert A. Shultz**

*Clinical Assistant Professor,  
Gastroenterology*

B.A., St. Louis University, 1977  
D.O., Kirksville College of  
Osteopathic Medicine, 1983

**Joseph Shuman**

*Clinical Assistant Professor,  
Internal Medicine*

M.D., University of Salamanca  
School of Medicine, 1967

**Christopher Siano**

*Clinical Assistant Professor, Pediatrics*

B.S., Nova Southeastern University, 1999  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 2003  
M.P.H., Nova Southeastern  
University, 2007

**Jaime Siberman**

*Adjunct Assistant Professor, Endodontics*

D.D.S., Columbia University, 2000

**Alan R. Siegel**

*Clinical Assistant Professor,  
Anesthesiology*

B.S., Tulane University, 1982  
M.D., University of Florida College of  
Medicine, 1986

**Geoffrey M. Siegel**

*Clinical Assistant Professor,  
Dermatology*

B.S., University of Miami, 1968  
D.O., Des Moines University College of  
Osteopathic Medicine, 1972

**Deneen Signator-Newman**

*Clinical Instructor,  
Physician Assistant Studies*

B.S., Northern Illinois  
University, 1986

P.A., Cook County Hospital Physician  
Assistant Program, 1993

**Allen Silanee**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*

B.A., Vassar College, 1992  
M.D., University of Cincinnati College of  
Medicine, 1966

**Fernando Silva**

*Clinical Assistant Professor, Optometry*

O.D., Pennsylvania College  
of Optometry, 1988

**Sanford M. Silverman**

*Clinical Assistant Professor,  
Anesthesiology*

B.S., Tufts University, 1981  
M.D., New York Medical College, 1986

**William M. Silverman**

*Clinical Associate Professor,  
Family Medicine*

B.S., Muhlenberg College, 1972  
D.O., Philadelphia College  
of Osteopathic Medicine, 1977

**Scott A. Silverstein**

*Clinical Assistant Professor,  
Family Medicine*

B.A., University of Florida, 1992  
D.O., University of Osteopathic Medicine  
and Health Services, 1998

**Stephen M. Silverstein**

*Clinical Assistant Professor,  
Family Medicine*

B.A., Temple University, 1963  
D.O., Des Moines College of Osteopathic  
Medicine and Surgery, 1967

**Albert Simon**

*Adjunct Faculty, Health Science*

B.S., Alderson-Broaddus College, Physician  
Assistant, 1979

M.Ed., Saint Francis University, 1985

D.H.Sc., Nova Southeastern  
University, 2004

**Robin G. Simon**

*Clinical Assistant Professor,*



*Orthopedic Surgery*  
D.O., University of Osteopathic Medicine  
and Health Sciences, 1990

**Glenn R. Singer**  
*Clinical Professor, Internal Medicine*  
B.S., Tulane University, 1974  
M.D., University of South Florida, 1978

**Jay Singer**  
*Clinical Assistant  
Professor, Orthodontics*  
D.D.S., Emory University  
School of Dentistry, 1978

**Jerry Singer**  
*Clinical Assistant Professor, Urology*  
M.D., New York University  
School of Medicine, 1980

**Melissa S. Singer**  
*Clinical Assistant Professor, Pediatrics*  
B.A., Cornell University College of Arts  
and Sciences, 1991  
M.D., University of Miami School of  
Medicine, 1996  
M.P.H., George Washington Medical  
Center School of Public Health and Health  
Sciences, 2002

**Satya P. Singh**  
*Clinical Assistant  
Professor, Gastroenterology*  
M.B.B.S., All India Institute  
of Medical Sciences, 1978

**Nicole H. Sirchio**  
*Clinical Assistant Professor, Family  
Medicine*  
B.S., Ball State University, 1996  
M.B.A., Saint Joseph University, 2000  
D.O., Philadelphia College of Osteopathic  
Medicine, 2002

**Arthur Skidmore**  
*Adjunct Professor, Endodontics*  
D.D.S., West Virginia University, 1966

**Stanley E. Skopit**  
*Clinical Professor, Dermatology*  
B.S., University of Miami, 1967  
M.S., Drake University, 1972

D.O., University of Health Sciences  
College of Osteopathic Medicine, 1977

**Joel Slingbaum**  
*Clinical Assistant Professor, Endodontics*  
D.M.D., Tufts University, 1998  
CT—Endodontics, Nova Southeastern  
University, 2000

**Kirk Smick**  
*Clinical Assistant Professor, Optometry*  
B.S., Pacific University, 1966  
O.D., Pacific University, 1967

**Damone E. Smith**  
*Adjunct Faculty, Diagnostic Sciences,  
Division of Primary Care*  
D.D.S., University of Michigan, 1996

**James W. Smith**  
*Clinical Assistant Professor,  
Family Medicine*  
B.S., Florida Southern College, 1977  
D.O., Chicago College of  
Osteopathic Medicine, 1983

**Leslie L. Smith**  
*Clinical Assistant Professor,  
Family Medicine*  
B.A., University of Tennessee, 1993  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1997

**Page A. Smith**  
*Clinical Instructor, Internal Medicine*  
B.A., University of California, 1977  
Pharm.D., University of California San  
Francisco School of Pharmacy, 1985  
M.D., Washington University School of  
Medicine, 1985

**Pamela H. Smith**  
*Adjunct Assistant Professor,  
Biomedical Informatics*  
B.S., University of Wisconsin, 1987  
M.S., Nova Southeastern University, 2001  
Ph.D., Walden University, 2007

**Sheila J. Smith**  
*Clinical Assistant Professor,  
Family Medicine*

D.O., Oklahoma State University  
College of Osteopathic Medicine, 1977

**Suzanne G. Smith**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of Florida, 1975  
D.O., Southeastern University  
College of Osteopathic Medicine, 1987

**Elaine M. Smith-Marchant**

*Clinical Assistant Professor,  
Dermatology*  
B.S., Howard University, 1989  
M.D., Howard University College of  
Osteopathic Medicine, 1993

**Edward N. Smolar**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., Union College, 1964  
M.D., Albert Einstein  
School of Medicine, 1968  
M.B.A., Nova University, 1985

**Jason C. Sniffen**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., Florida A&M University, 1991  
D.O., Southeastern University  
College of Osteopathic Medicine, 1996

**Jeffrey P. Snow**

*Clinical Assistant Professor, Surgery*  
B.S., Massachusetts Institute of  
Technology, 1978  
M.D., Johns Hopkins School of  
Medicine, 1982

**Marcia L. Snowball**

*Clinical Assistant Professor, Obstetrics  
and Gynecology and Rural Medicine*  
B.S., John Brown University, 1979  
M.D., The Ohio State University College  
of Medicine, 1982

**Ariel D. Soffer**

*Clinical Assistant Professor, Cardiology*  
B.S., University of South Florida, 1986  
M.D., University of Miami School of  
Medicine, 1990

**Terrence L. Soldo**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of Nebraska School of  
Medicine, 1977  
D.O., Kirksville College of Osteopathic  
Medicine, 1990

**Andrea H. Sommers**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., University of South Florida, 1978  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1986

**Richard Sorkin**

*Clinical Assistant Professor, Optometry*  
O.D., Nova Southeastern University  
College of Optometry, 1997

**Carlos E. Spera**

*Clinical Assistant Professor, Surgery*  
M.D., Universidad de Buenos Aires, 1974

**David Spiezman**

*Clinical Assistant Professor,  
Internal Medicine*  
B.A., Tulane University, 1983  
D.O., New York College  
of Osteopathic Medicine, 1990

**Adam S. Splaver**

*Clinical Assistant Professor, Cardiology*  
B.A., Yeshiva College, 1994  
M.D., Albert Einstein College of Medicine  
of Yeshiva University, 1998

**Theodore Splaver**

*Adjunct Faculty, OMFS*  
D.M.D., University of Pittsburgh, 1966

**Kevin Spohr**

*Clinical Assistant Professor,  
Family Medicine*  
D.O., Kirksville College of  
Osteopathic Medicine, 1995

**Timothy E. Spruill**

*Clinical Associate Professor, Psychiatry*  
B.A., Andrews University, 1973  
M.A., George Mason University, 1977  
Ed.D., Western Michigan University, 1992

**Vathany Sriganeshan**  
*Clinical Assistant Professor, Pathology*  
M.D., Chengalpattu Medical College, 1994

**Latha Srinath**  
*Clinical Assistant Professor,*  
*Internal Medicine*  
B.S., National College, 1978  
M.D., Bangalore Medical College, 1984

**Brad Stach**  
*Adjunct Professor, Audiology*  
B.A., New Mexico State University, 1977  
M.A., Vanderbilt University, 1979  
Ph.D., Baylor College of Medicine, 1986

**William H. Stager**  
*Clinical Associate Professor,*  
*Family Medicine*  
B.A., Livingston College, 1983  
D.O., Southeastern University  
College of Osteopathic Medicine, 1989

**S. Sigmund Stahl**  
*Adjunct Faculty, Periodontology,*  
*Division of Surgical Sciences*  
D.D.S., University of Minnesota, 1947  
M.S., University of Illinois, 1949

**Zarina Staller**  
*Adjunct Professor, Prosthodontics*  
D.M.D., Nova Southeastern University  
College of Dental Medicine, 2000

**Margaret J. Starr**  
*Clinical Assistant Professor,*  
*Family Medicine*  
M.S., Stanford University, 1970  
D.O., Michigan State University  
College of Osteopathic Medicine, 1979

**Clarice M. Staves**  
*Clinical Assistant Professor, Pediatrics*  
B.A., Central Connecticut State  
University  
M.D., Universidad Autonoma de  
Guadalajara School of Medicine, 2000

**Pamela T. Stearns**  
*Clinical Assistant Professor,*  
*Family Medicine*  
B.S., University of Florida, 1981

M.D., University of Florida School of  
Medicine, 1985

**Alvin Stein**  
*Clinical Assistant Professor,*  
*Orthopedic Surgery*  
B.A., New York University, 1957  
M.D., Chicago Medical School, 1961

**Joel D. Stein**  
*Clinical Associate Professor,*  
*Family Medicine*  
B.A., Washington and Jefferson  
College, 1978  
D.O., Kirksville College of  
Osteopathic Medicine, 1983

**Kimberly R. Stein**  
*Clinical Assistant Professor,*  
*Family Medicine*  
B.S., Pennsylvania State  
University, 1985  
D.O., Southeastern University  
College of Osteopathic Medicine, 1989

**Reynold M. Stein**  
*Clinical Assistant Professor,*  
*Family Medicine*  
B.A., Yeshiva University, 1974  
M.D., New York Medical College, 1978

**Joshua Z. Steiner**  
*Clinical Assistant Professor,*  
*Family Medicine*  
B.A., Yeshiva University, 1992  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 2000

**Michael L. Steiner**  
*Clinical Associate Professor, Pediatrics*  
A.B., University of Pennsylvania, 1958  
M.D., St. Louis University School of  
Medicine, 1962

**Jeff P. Steinhoff**  
*Clinical Assistant Professor, Cardiology*  
B.S., Pennsylvania State University, 1994  
M.D., University of Medicine and  
Dentistry of New Jersey, 1998

**Eric Stelnicki**

*Clinical Assistant Professor,  
Pediatric Dentistry*  
M.D., University of Florida, 1991

**Edward C. Stephenson**

*Adjunct Assistant Professor*  
B.S., Long Island University, 1975  
M.S.W., Howard University, 1977  
M.P.H., University of Pittsburgh, 1979

**Fran E. Sterling**

*Clinical Assistant Professor, Pediatrics*  
B.S., Ohio State University, 1975  
D.O., Ohio State University, 1981

**David J. Stern**

*Clinical Associate Professor,  
Internal Medicine*  
B.A., LaSalle College, 1975  
D.O., Philadelphia College of  
Osteopathic Medicine, 1979

**Diane Stern**

*Clinical Professor,  
Diagnostic Sciences*  
D.M.D., Columbia University  
College of Optometry, 1961

**Jeffrey Stevens**

*Clinical Assistant Professor,  
Oral and Maxillofacial Surgery*  
D.M.D., Tufts University, 1967

**Stanley Stewart**

*Clinical Assistant Professor,  
Oral and Maxillofacial Surgery*  
D.M.D., University of Pittsburgh, 1973

**Neal Stief**

*Adjunct Instructor,  
Biomedical Informatics*  
B.S., University of Florida, 1993

**Mark A. Stillman**

*Adjunct Assistant Professor,  
Public Health*  
B.S., Florida International University, 2001  
M.S., Nova Southeastern University, 2005  
Ph.D., Nova Southeastern University, 2008

**Amos Stoll**

*Clinical Assistant Professor, Neurology*  
M.D., University of Oklahoma  
College of Medicine, 1974

**Charles B. Stone**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., University of Miami, 1991  
M.D., University of Miami School of  
Medicine, 1995

**Kevin E. Stone**

*Clinical Assistant Professor,  
Internal Medicine*  
B.A., Boston University, 1976  
M.D., Universidad Mundial  
Dominicana, 1984

**Reed Stone**

*Clinical Assistant Professor, Neurology*  
M.D., Universidad Central del Este, 1981

**Neil H. Strauss**

*Clinical Instructor, Geriatrics*  
B.S., Dickinson College, 1997  
D.P.M., Barry University of Graduate  
Medical Science, 2003

**Stuart B. Strikowsky**

*Clinical Associate Professor,  
Family Medicine*  
B.A., Pennsylvania State University, 1973  
D.O., College of Osteopathic  
Medicine and Surgery, 1977

**Lawrence A. Strong**

*Clinical Assistant  
Professor, Dermatology*  
B.A., Washington and Jefferson  
College, 1990  
D.O., Philadelphia College of  
Osteopathic Medicine, 1994

**Jose David Suarez**

*Clinical Assistant Professor,  
Family Medicine*  
M.D., Universidad Central Del Este, 1986

**Manuel Suarez**

*Clinical Assistant Professor,  
Pulmonary Medicine*

M.D., University Central del Este School of Medicine, 1981

**Michael Suchar**

*Adjunct Assistant Professor,  
Pediatric Dentistry,  
Division of Developmental Sciences*  
D.D.S., Temple University, 1982  
Certificate in Pedodontics, St.  
Christopher's Hospital Pennsylvania, 1984

**J. Richard Susi**

*Clinical Assistant Professor,  
Ophthalmology*  
B.A., Case Western Reserve  
University, 1977  
D.O., Philadelphia College  
of Osteopathic Medicine, 1981

**Pamela M. Sutton**

*Clinical Associate  
Professor, Family Medicine*  
B.A., Pomona College, 1969  
M.D., University of California at  
San Francisco Medical School, 1973

**Marc A. Swerdloff**

*Clinical Assistant Professor, Neurology*  
M.D., Sackler School of Medicine, 1980

**Samuel Szomstein**

*Clinical Assistant Professor  
Surgery*  
M.D., Universidad Central de  
Venezuela, 1993

**Jacob Tangir**

*Clinical Assistant Professor,  
Obstetrics and Gynecology*  
M.D., Universidad Central de  
Venezuela, 1992

**Arnold L. Tanis**

*Clinical Professor, Pediatrics*  
B.S., University of Chicago, 1949  
M.D., University of Chicago, 1951

**Lisa Maria Tartaglia**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., Rosemont College, 1996

D.O., Lake Erie College of Osteopathic  
Medicine, 2003

**Dennis Tartakow**

*Clinical Associate  
Professor, Orthodontics*  
D.M.D., Tufts University  
School of Dental Medicine, 1969

**Arlene L. Taylor**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of Miami, 1993  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 2002

**James H. Taylor**

*Clinical Associate Professor,  
Family Medicine*  
B.S., Dickinson College, 1972  
D.O., Philadelphia College of  
Osteopathic Medicine, 1977

**George R. Termotto**

*Clinical Assistant Professor, Pediatrics*  
B.S., University of Miami, 1968  
M.D., University of Zaragoza, 1975

**Ann Marie Tharpe**

*Adjunct Professor, Audiology*  
B.S., University of Arizona, 1979  
M.S., Vanderbilt University, 1994  
Ph.D., Vanderbilt University, 1994

**James S. Thayer**

*Clinical Instructor, Internal Medicine*  
B.A., California State University, 1972  
M.D., Creighton University  
College of Medicine, 1976

**Deborah M. Thevenin**

*Clinical Associate Professor, Family  
Medicine*  
B.A., University of Miami, 1981  
M.S., University of Miami, 1984  
M.D., University of Miami, 1989

**Giddel G.A. Thom**

*Clinical Assistant Professor, Pediatrics*  
M.D., University of Montemorelos School  
of Medicine, 1995

**Lanetta Thorpe**

*Adjunct Faculty, Health Science*

B.A., University of North Carolina, 1987

M.S.P.H., University of North Carolina, 1988

M.D./M.P.H., University of  
North Carolina, 1993

**John Tierney**

*Clinical Assistant Professor, Optometry*

M.S., Pacific University, 1978

O.D., New England College  
of Optometry, 1978

**H. Murray Todd**

*Clinical Professor, Neurology*

B.A., University of Toledo, 1962

M.D., University of Miami  
School of Medicine, 1966

**Kathleen L. Todd**

*Clinical Assistant Professor,  
Family Medicine*

D.O., Michigan State University  
College of Osteopathic Medicine, 1995

**Ronald B. Tolchin**

*Clinical Associate Professor,  
Physical Medicine and Rehab.*

B.S., Villanova University, 1983

D.O., Southeastern University  
College of Osteopathic Medicine, 1989

**Peter A. Tomasello, Jr.**

*Clinical Assistant Professor,  
Orthopedic Surgery*

B.A., University of South Florida, 1986

D.O., Southeastern University  
College of Osteopathic Medicine, 1991

**Johann V. Torres**

*Clinical Instructor, Internal Medicine*

B.S., North Carolina State University, 1995

B.S., Duke University, 1991

**Julio D. Torres-Navedo**

*Clinical Assistant Professor,  
Otolaryngology*

M.D., University of Puerto Rico School of  
Medicine, 1978

**Melissa Tovyn**

*Adjunct Professor, Physical Therapy*

B.S.P.T., New York University, 1988

M.S., Columbia University, 1993

Ph.D., Georgia State University, 1999

**Darin P. Trelka**

*Clinical Assistant Professor, Pathology*

B.A., Washington & Jefferson  
University, 1992

Ph.D., Thomas Jefferson University, 1999

M.D., CMP—Hahnemann University, 2002

**Nancy M. Troast**

*Clinical Assistant Professor,  
Internal Medicine*

B.A., Washington and Jefferson  
College, 1979

D.O., Philadelphia College  
of Osteopathic Medicine, 1983

**Marie C. Tromans**

*Clinical Assistant Professor, Internal  
Medicine*

M.D., State University Medicine and  
Pharmacy School, 1989

**Dennis P. Trupkin**

*Clinical Assistant Professor,  
Pediatric Dentistry*

D.D.S., Medical College of Virginia School  
of Dentistry, 1970

**Johny Tryzmel**

*Clinical Assistant Professor, Pediatrics*

M.D., Universidad Central De  
Venezuela, 1994

**Tammy L. Tuchel**

*Clinical Assistant Professor,  
Family Medicine*

M.P.H., University of Miami, 1993

D.O., Nova Southeastern University, 1997

**June E. Tuckle**

*Clinical Assistant Professor,  
Family Medicine*

B.S.N., University of South Florida, 1985

M.S.N., University of South Florida, 1990

**Claudia D. Tuda**

*Clinical Assistant Professor,  
Infectious Disease*

M.D., University of Buenos Aires, 1986

**Gerald T. Turgeon**

*Clinical Assistant Professor, Neurology*  
B.S., University of Dakota, 1973  
D.O., Kirksville College of Osteopathic  
Medicine, 1979

**Michael J. Turley**

*Clinical Instructor,  
Physician Assistant Studies*  
P.A., Bayley Seton Hospital  
Physician Assistant Program, 1973

**Lisa Unger**

*Adjunct Faculty Member, Nursing*  
B.S.N., Lewis University, 1982  
M.S.N., Lewis University, 1988  
Ed.D., Nova Southeastern University, 2001

**Amit Upadhiaya**

*Clinical Assistant Professor,  
Internal Medicine*  
M.D., J.J.M. Medical College, 1989  
D.O., New York College of Osteopathic  
Medicine, 2001

**Norman Ulrich**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Duquesne University, 1970  
D.O., Kirksville College of  
Osteopathic Medicine, 1974

**Eugene Usberghi, Jr.**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., University of Akron, 1968  
D.O., College of Osteopathic  
Medicine and Surgery, 1976

**Dushyant J. Utamsingh**

*Clinical Assistant Professor,  
Internal Medicine*  
M.D., Seth G.S. Medical College, 1984

**Mark A. Vacker**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., State University of New York, 1973  
M.D., New York Medical School, 1979

**Yolanda M. Valdes**

*Clinical Assistant Professor, Pediatrics*

B.S., University of Miami, 1989  
M.D., University of Miami  
School of Medicine, 1993

**Jacqueline B. Valdes-Rafuls**

*Clinical Assistant Professor, Pediatrics*  
M.D., Universidad Central del Este, 1986

**Gabriel A. Valle**

*Clinical Assistant Professor,  
Nephrology*  
B.S., University of Heredia, 1972  
M.D., University of Heredia, 1980

**Steven J. Varady**

*Clinical Assistant Professor, Urology*  
B.S., Columbia University, 1971  
M.D., Harvard Medical School, 1975  
M.B.A., New York Institute of  
Technology, 1995

**Kimber Vasquez**

*Clinical Instructor, Family Medicine*  
M.D., Universidad Autonoma de  
Sinaloa, 1984

**Sofia E. Vasquez-Solomon**

*Clinical Assistant Professor,  
Internal Medicine*  
M.D., University of Panama Medical  
School, 1994

**Ivonne Vazquez**

*Adjunct Instructor, Cariology and  
Restorative Dentistry*  
D.D.S., El Bosque University, Colombia, 2005

**Paul Vazquez**

*Clinical Associate Professor, Urology*  
B.S., University of Miami, 1976  
D.O., Kirksville College  
of Osteopathic Medicine, 1981

**Manuel Vega**

*Clinical Assistant Professor, Pediatrics*  
B.S., University of Miami, 1978  
M.D., Universidad Central del Este, 1982

**German Vergara**

*Clinical Assistant Professor, Nephrology*  
M.D., Universidad de Sevilla, 1977

**Ricardo I. Vicuna**

*Clinical Assistant Professor, Cardiology*  
M.D., Cayetano Heredia Peruvian  
University, 1994

**Ramon G. Vidal**

*Clinical Assistant Professor,*  
*Family Medicine*  
M.D., Universidad Central del Este, 1986

**Tomas Villanueva**

*Clinical Assistant Professor,*  
*Internal Medicine*  
B.A., St. Thomas University, 1986  
D.O., Southeastern University  
College of Osteopathic Medicine, 1991

**Craig D. Vogel**

*Clinical Assistant Professor, Cardiology*  
B.S., New York Institute  
of Technology, 1986  
D.O., New York College  
of Osteopathic Medicine, 1989

**Roberto L. Von Sohsten**

*Clinical Assistant Professor, Cardiology*  
M.D., Federal University  
Medical School, 1990

**Lannie Vuong-Huynh**

*Clinical Assistant Professor, Pediatrics*  
B.S., Tulane University, 1993  
M.D., University of Miami School of  
Medicine, 1995

**John W. Waidner**

*Clinical Assistant Professor, Pediatrics*  
B.A., Miami University, 1986  
M.D., University of South Florida, 1990

**Stuart M. Waldman**

*Clinical Assistant Professor, Oncology*  
B.S., George Washington University, 1978  
M.D., The George Washington University  
School of Medicine, 1982

**Bailus Walker, Jr.**

*Adjunct Professor, Public Health*  
M.P.H., University of Michigan, 1959  
Ph.D., University of Minnesota, 1975

**Kay Francas Walker**

*Adjunct Professor, Occupational Therapy*  
B.S., University of Florida, 1964  
M.Ed., University of Florida, 1970  
Ph.D., University of Florida, 1990

**Gerald Wallach**

*Adjunct Faculty, Cariology and*  
*Restorative Dentistry*  
D.D.S., New York University, 1961

**Charles Walowitz**

*Adjunct Instructor, Prosthodontics,*  
*Division of Primary Care*  
D.D.S., University of Pennsylvania, 1962

**Douglas A. Walsh**

*Clinical Assistant Professor,*  
*Family Medicine*  
B.S., University of Houston, 1965  
D.O., University of Health Sciences  
College of Osteopathic Medicine, 1970

**Michael F. Walsh**

*Clinical Assistant Professor, Family*  
*Medicine*  
B.S., Catholic University of America, 1971  
M.D., University of Colorado School of  
Medicine, 1975

**Ronald L. Walsh**

*Clinical Associate Professor, Cardiology*  
B.S., Alma College, 1974  
D.O., Chicago College of  
Osteopathic Medicine, 1977

**Jacqueline R. Walter Reese**

*Adjunct Faculty, Occupational Therapy*  
B.S., Keuka College, 1997

**Alexander Wang**

*Adjunct Clinical Instructor,*  
*Periodontology,*  
*Division of Surgical Sciences*  
D.M.D., Nova Southeastern University, 2000  
Certificate, Periodontology, Nova  
Southeastern University, 2003

**Cheng Wang**

*Adjunct Assistant Professor,*  
*Public Health*



B.S., University of Science and  
Technology of China, 1985  
M.S., Academic Institute of  
Sciences of China, 1987  
M.S., University of California—  
Santa Barbara, 1994

**Kimberly Wang**

*Adjunct Clinical Hygienist Instructor,  
Periodontology,  
Division of Surgical Sciences*  
A.S., Santa Fe Community College,  
1991

**Shuangao Wang**

*Adjunct Associate Professor,  
Biomedical Informatics*  
B.S., Southwest Jiaotong University, 1984  
M.S., Southwest Jiaotong University, 1992  
Ph.D., George Mason University, 2004

**Sheldon T. Warman**

*Clinical Associate Professor,  
Internal Medicine*  
B.A., New York University, 1973  
M.D., Chicago Medical School, 1976

**Alfred Warren**

*Adjunct Instructor, Prosthodontics,  
Division of Primary Care*  
D.D.S., University of Maryland, 1969  
M.D., Talbot Theological Seminary, 1978

**Simon J. Warren**

*Clinical Assistant Professor,  
Dermatology*  
M.A., Jesus College, 1986  
M.D., Guys and St. Thomas Medical  
School, 1993

**Jack Waterman**

*Clinical Assistant Professor, Nephrology*  
D.O., Philadelphia College  
of Osteopathic Medicine, 1981

**Gary J. Wayne**

*Clinical Assistant Professor,  
Oral and Maxillofacial Surgery*  
D.M.D., Fairleigh Dickinson University  
College of Dental Medicine, 1989

**Bethany A. Weaver**

*Clinical Assistant Professor,  
Infectious Disease*  
B.S., Rutgers University, 1992  
D.O., University of Medicine and Dentistry  
of New York, 1996  
M.P.H., University of Washington, 2002

**Malvin Weinberger**

*Clinical Associate Professor, Surgery*  
A.B., University of Pennsylvania, 1958  
M.D., Temple University, 1962

**Michael S. Weinblatt**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., State University of New York—  
Binghamton, 1978  
M.D., State University of New York  
Upstate Medical Center, 1982

**Neil J. Weinreb**

*Clinical Associate Professor,  
Hematology/Oncology*  
M.D., State University of New York, 1966

**Brian K. Weinstein**

*Clinical Assistant Professor, Surgery*  
M.D., State University of New York Health  
Science, 1993

**Mitchell D. Weinstein**

*Clinical Associate Professor, Urology*  
B.S., Pennsylvania State University, 1979  
D.O., University of Health Sciences, 1984

**Susan A. Weinstein**

*Adjunct Clinical Hygienist Instructor,  
Periodontology,  
Division of Surgical Sciences*  
A.S., Santa Fe Community College, 1992  
B.S., Florida International University, 2002

**Stephen A. Weirich**

*Clinical Associate Professor,  
Family Medicine*  
B.S., Allegheny College, 1981  
M.D., University of Rochester, 1985

**Jeffrey I. Weisberg**

*Clinical Professor, Hematology/Oncology*  
B.A., Brooklyn College, 1967

D.O., University of Health Sciences  
College of Osteopathic Medicine, 1971

**Eduardo T. Weiss**

*Clinical Associate Professor, Dermatology*  
M.D., Universidad Central de Venezuela, 1982

**Marcella Weiss**

*Clinical Assistant Professor,  
Family Medicine*  
M.D., Universidad Central de Venezuela, 1990

**Michael C. Weiss**

*Clinical Assistant Professor,  
Orthopedic Surgery*  
B.S., University of Florida, 1981  
D.O., Southeastern University  
College of Osteopathic Medicine, 1986

**Paul Werner**

*Adjunct Faculty, Pediatric Dentistry*  
D.D.S., Georgetown University, 1975  
CT—Pedodontics, Eastman Dental  
Center, 1979

**Benjamin J. Westby**

*Clinical Assistant Professor,  
Sports Medicine*  
B.S., Moorhead State University, 1997  
M.S., Des Moines University, 2000

**Erica Z. Whitfield**

*Clinical Instructor, Preventive Medicine*  
B.S., University of Florida, 2000  
M.P.H., Rollins School of Public  
Health, 2003

**Graham F. Whitfield**

*Clinical Assistant Professor,  
Orthopedic Surgery*  
B.S., University of London, 1963  
Ph.D., University of London, 1969  
M.D., New York Medical College, 1976

**Martha M. Wichert**

*Adjunct Professor, Physical Therapy*  
B.S., University of Iowa, 1980  
B.S. PT, University of Miami, 1980

**Edward L. Wiener**

*Clinical Professor,  
General Surgery*

D.O., Michigan State University  
College of Osteopathic Medicine, 1976

**Ronald J. Wiewora**

*Adjunct Assistant Professor,  
Public Health*  
*Clinical Assistant Professor,  
Preventive Medicine*  
B.S., University of Illinois, 1974  
M.D., University of Illinois, 1978  
M.P.H., University of Miami, 1986

**Grady E. Williams III**

*Clinical Professor,  
Family Medicine*  
B.S., Louisiana Technical University, 1969  
M.S., Texas A&M University, 1972  
Ph.D., Texas A&M University, 1977

**Lanelle Williams**

*Clinical Assistant, Optometry*  
O.D., Nova Southeastern University, 1998

**Richard K. Williams**

*Clinical Assistant Professor,  
Internal Medicine*  
B.A., Brown University, 1973  
M.D., University of Chicago, 1977

**Ronald K. Williams**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., Hofstra University, 1992  
D.O., New York College of Osteopathic  
Medicine, 1996

**Jerry Williamson**

*Clinical Assistant Professor, Pediatrics*  
M.D., The Medical College  
of Pennsylvania, 1975

**Joseph G. Willmitch**

*Clinical Instructor,  
Physician Assistant Studies*  
B.S., Youngstown State University, 1976

**Charles D. Wingfield**

*Clinical Associate Professor,  
Internal Medicine*  
B.S., Gettysburg College, 1959  
D.O., Philadelphia College of  
Osteopathic Medicine, 1963

**Paul K. Winner**

*Clinical Professor, Neurology*  
B.S., Manhattan College, 1977  
D.O., New York College of  
Osteopathic Medicine, 1981

**Jeffrey L. Wisnioski**

*Clinical Assistant Professor, Surgery*  
B.S., Rensselaer Polytechnic Institute, 1976  
M.D., Albany Medical College of Union  
University, 1980

**Stanley W. Wisnioski III**

*Clinical Instructor, Family Medicine*  
B.S., Palm Beach Atlantic University, 1996  
D.O., Pikeville College of Osteopathic  
Medicine, 2002

**Edward F. Wolek**

*Clinical Assistant Professor,  
Family Medicine*  
B.S., Palm Beach Atlantic University, 1997  
D.O., Nova Southeastern University, 2001

**Glenn Wolfinger**

*Adjunct Assistant Professor,  
Prosthodontics, Division of Primary Care*  
D.M.D., Tufts University, 1990  
Certificate, Combined Prosthodontics,  
Harvard School of Dental Medicine, 1993

**Ava C. Wolf-Rosenberg**

*Clinical Assistant Professor,  
Family Medicine*  
B.A., State University of New York, 1984  
D.O., New York College of  
Osteopathic Medicine, 1988

**Kelli Wolper**

*Clinical Adjunct Instructor, Optometry*  
O.D., Southern California College of  
Optometry, 1985

**Stephen R. Wood**

*Clinical Assistant Professor,  
Orthopedic Surgery*  
B.S., University of South Dakota, 1974  
D.O., Kirksville College of  
Osteopathic Medicine, 1980

**William D. Wood**

*Clinical Assistant Professor, Pediatrics*

B.S., Clemson University, 1990  
M.D., Medical University of South  
Carolina, 1994

**Randal G. Worth**

*Clinical Assistant Professor,  
Internal Medicine*  
B.S., Iowa State University, 1973  
D.O., Des Moines College of Osteopathic  
Medicine and Surgery, 1977

**Arlene Wright**

*Adjunct Faculty Member, Nursing*  
B.S., University of St. Francis, 1994  
M.S.N./FNP, University of Tampa, 2000

**Marilyn Wright**

*Adjunct Faculty, Health Science*  
B.A., University of California, 1974  
B.S., Loma Linda University, 1976  
M.P.H., Loma Linda University, 1991  
D.P.H., Loma Linda University, 2001

**Robin Wucher-Lapin**

*Adjunct Professor, Nursing*  
A.D.N., Miami Dade  
Community College, 1976  
B.S.N., Florida International  
University, 1979  
M.S.N., University of Miami, 1983

**Mark J. Yacht**

*Clinical Assistant Professor,  
Preventive Medicine*  
M.P.H., Tulane School of Public Health  
and Tropical Medicine, 1971  
M.D., University of the East Ramon  
Magsay Memorial Medical Center, 1978

**Bose Yalamanchi**

*Clinical Assistant Professor, Surgery*  
M.D., Gulbarga Medical College, 1970

**Charina C. Yango**

*Clinical Assistant Professor, Family  
Medicine*  
B.S., University of the Philippines, 1996  
M.D., University of the Philippines, 2001

**Edward T. Yee**

*Clinical Assistant Professor, Internal  
Medicine*

B.S., University of Notre Dame, 1992  
M.D., Indiana University School of  
Medicine, 1996

**Zhang Ying**

*Clinical Adjunct Professor, Optometry*  
Tianjin Medical University, 1994

**Louis R. Yogel**

*Clinical Assistant Professor, Urology*  
B.A., Temple University, 1975  
M.D., Autonomous University  
of Guadalajara, 1979

**Erol A. Yoldas**

*Clinical Assistant Professor,*  
*Orthopedic Surgery*  
B.S., Duke University  
School of Engineering, 1990  
M.D., Yale University  
School of Medicine, 1994

**David B. Youel**

*Clinical Assistant Professor,*  
*Internal Medicine*  
B.A., University of Minnesota, 1958  
M.D., University of Minnesota, 1963

**Mary Beth Young**

*Clinical Assistant Professor, Optometry*  
O.D., Nova Southeastern University, 2006

**Xinhua Yu**

*Adjunct Assistant Professor,*  
*Public Health*  
M.D., Shanghai Medical University, 1994  
Ph.D., University of Minnesota School of  
Public Health, 2003  
M.S., University of Minnesota, 2008

**Aristides Zacharoudis**

*Clinical Assistant Professor, Cardiology*  
B.S., St. John's University, 1982  
M.D., Autonomous University  
of Guadalajara, 1986

**Fatima Zafar**

*Clinical Assistant Professor, Psychiatry*  
M.D., Osmania University Medical  
School, 1967

**Elise J. Zahn**

*Clinical Associate Professor,*  
*Family Medicine*  
B.S., University of Florida, 1989  
D.O., Nova Southeastern University  
College of Osteopathic Medicine, 1996

**Maria B. Criselda Zaldivar**

*Clinical Assistant Professor,*  
*Nephrology*  
B.S., University of the Philippines College  
of Science, 1992  
M.D., University of the Philippines, 1997

**Brian A. Zalis**

*Clinical Associate*  
*Professor, Family Medicine*  
M.D., University of Florida  
School of Medicine, 1976

**Michael J. Zappa**

*Clinical Assistant Professor,*  
*Family Medicine*  
B.S., City University of New York, 1985  
M.D., State University of New York, 1987

**Bernard J. Zaragoza**

*Clinical Assistant Professor, Surgery*  
B.A., University of Miami, 1986  
M.D., Harvard Medical School, 1990

**Elsa M. Zayas**

*Clinical Assistant Professor, Psychiatry*  
B.S., University of Miami, 1983  
B.A., University of Miami, 1983  
M.D., Universidad de Zaragoza, 1989

**Xiao-Mei Zeng**

*Clinical Assistant Professor,*  
*Obstetrics and Gynecology*  
B.A., Beijing Second Foreign, 1982  
M.S., Baylor University, 1983  
M.D., New York Medical College, 1993

**Susan L. Zito**

*Clinical Assistant Professor,*  
*Internal Medicine*  
B.A., Temple University, 1989  
M.P.H., University of South Florida  
College of Public Health, 1998  
D.O., Des Moines University Osteopathic  
Medical Center, 2002

**Laura M. Ziton**

*Clinical Assistant Professor,  
Family Medicine*

B.A., University of Maryland, 1995

M.S., University of Maryland, 1998

D.O., University of Health Sciences  
College of Osteopathic Medicine, 2003

**Michael B. Zlatkin**

*Clinical Professor,  
Osteopathic Principles and Practice*

B.S., McGill University, 1977

M.D., Queen's University Medical  
School, 1981

**Alex R. Zopo**

*Clinical Assistant Professor,  
Internal Medicine*

M.D., Escuela de Medicina, 1990

**Jose A. Zuniga**

*Clinical Assistant Professor, Neurology*

B.S., Peruvian University  
Cayetano Heredia, 1965

M.D., Peruvian University  
Cayetano Heredia, 1971