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NSU Course Catalogs and Course Descriptions

2020

### College of Pharmacy 2020

Nova Southeastern University

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NSU's College of Pharmacy
PHARMACY

NOVA SOUTHEASTERN UNIVERSITY



Health Professions Division | Students Entering 2020 Now Accepting Applications *nova.edu* 



NSU pharmacy students practice their skills while helping communities here and throughout the world.

## THE NSU EDGE

- low student-to-faculty ratio
- extensive resources
- clinical experience
- opportunities to aid urban and rural underserved populations
- interprofessional service-learning
- faculty and staff members who care about your success
- commitment to developing students of academic and clinical distinction
- track record for cultivating patient-focused leaders





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### MESSAGE FROM THE DEAN



NSU's College of Pharmacy (COP) prepares high-achieving candidates to dominate in their chosen careers through state-of-the-art education; knowledgeable faculty members; and a diverse, engaging learning environment. Whether you choose to become a clinical pharmacist, researcher, academician, or pharmaceutical industry or legislative expert, NSU COP will give you the edge to be a leader and catalyst for change.

Pharmacy is a rewarding, dynamic profession that attracts outstanding students to explore its many opportunities in the changing health care environment.

At the heart of our college are exceptional students mentored by committed and talented faculty members and preceptors. They provide a rich, interactive learning environment at our campuses in the Greater Fort Lauderdale area, Miami, and Palm Beach, Florida, and in San Juan, Puerto Rico.

Our faculty members are recognized as experts in their field and provide quality professional and graduate education focusing on academic excellence. Students are given the opportunity to **prepare, practice,** and **perform** skills through active engagement early in the profession. NSU COP's students and faculty and staff members provide a necessary component of an interprofessional, collaborative community, part of a progressive health care system, through

- active learning in and out of the classroom
- engagement in research and scholarship
- health fairs and community healthrelated activities
- internships
- travel study programs
- medical outreach

Our outstanding alumni dominate in their chosen career paths and selflessly provide ongoing education and mentoring. Our alumni don't just graduate, they are a force to be reckoned with, now and in the future.

Make NSU COP your destination for pharmacy and graduate education and discover the NSU Edge for yourself. **Dream, dare,** and **discover** with NSU COP. Become part of our Shark #Pharmily.

Prepare to dominate!

Michelleatte

Michelle A. Clark, Ph.D. Interim Dean, College of Pharmacy



Students are given the opportunity to prepare, practice, and perform skills through active engagement early in the profession.

-Michelle A. Clark

Students can prepare for a career in pharmacy practice, research, industry, academia, and other pharmacy-related areas through their choice of four programs.

### DOCTOR OF PHARMACY (PHARM.D.)

This degree is available as a four-year Entry-Level Program or a three-year, international pharmacy graduate Advanced Standing Program.

The patient care pharmacist, often referred to as a clinical pharmacist, is highly educated in disease process, pharmacotherapy, and patient monitoring. Pharmacists

- review patient history and disease manifestations to guide cost-effective therapy selection
- optimize medication outcomes by maintaining communication with patients regarding adherence and responses to therapeutic agents
- work closely with interprofessional teams to review and modify patient-care plans as required
- emphasize disease prevention by providing immunizations, smoking cessation programs, and education about prominent chronic disease states

### DOCTOR OF PHILOSOPHY (PH.D.) IN PHARMACEUTICAL SCIENCES

The pharmaceutical scientist is very knowledgeable in pharmacology, pharmaceutics, pharmacokinetics, drug administration, and the complex nature of the use and distribution of pharmaceutical products and the provision of pharmacy services.

Three unique sequences are offered.

- 1. Molecular Medicine and Pharmacogenomics
- 2. Drug Development (Pharmaceutics)
- 3. Social and Administrative Pharmacy

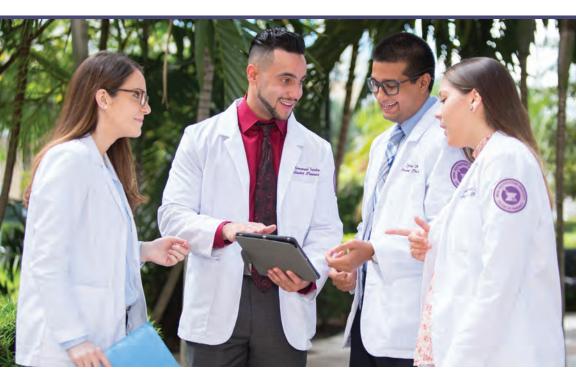
### **Did You Know?**

**Ph.D. graduates** focus on expanding the science of drug knowledge by creating and testing new drug molecules or using technology to develop new dosage forms. This field also responds to limitations in caring for patients identified by practicing pharmacists.

### MASTER OF SCIENCE (M.S.) IN PHARMACEUTICAL AFFAIRS

This graduate program prepares students to critically analyze issues related to the production and use of pharmaceuticals and act as leaders in the field. Graduates are prepared to work with health care professionals in the pharmaceutical industry, academia, and governmental and nongovernmental agencies.

The M.S. in Pharmaceutical Affairs also provides additional preparation for students interested in pursuing a Pharm.D. or Ph.D. degree.



### MASTER OF SCIENCE (M.S.) IN PHARMACEUTICAL SCIENCES

This graduate program is designed for those interested in the acquisition of knowledge and skills associated with pharmaceutical agents. The degree will prepare students for academia, managerial, or technological positions in the pharmaceutical industry, as well as positions in contract research or managed care organizations, health care systems, and government agencies.

Three unique sequences are offered.

- 1. Molecular Medicine and Pharmacogenomics
- 2. Drug Development (Pharmaceutics)
- 3. Social and Administrative Pharmacy

#### **Provisional Acceptance**

Students are provisionally 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 late fee.



### HISTORY OF THE COLLEGE OF PHARMACY

NSU opened the first college of pharmacy in South Florida.

| 1987      | First class admitted.  |
|-----------|--|
| 2000-2001 | Pharm.D. programming extended to Palm Beach, Florida, and Puerto Rico.         |
| 2002      | Pharm.D. program expanded to accept international pharmacy graduates.          |
| 2010      | First Ph.D. in Pharmaceutical Sciences program class admitted.                 |
| 2016      | First M.S. in Pharmaceutical Affairs class admitted (at the NSU Miami Campus). |
| 2017      | First M.S. in Pharmaceutical Sciences class admitted.                          |

### **Did You Know?**

The three-year Advanced Standing curriculum allows pharmacists educated outside the United States to earn a Pharm.D. degree and take U.S. board licensing exams.

### Today

- Students can earn degrees on four campuses
  - Fort Lauderdale/Davie, Florida
  - Miami, Florida
  - Palm Beach, Florida
  - \* San Juan, Puerto Rico
- Each campus has separate administration, faculty, and staff.
- All students are taught by a diverse faculty who engage students synchronously using state-of-the-art videoconferencing technology.
- Annually, more than 220 NSU COP graduates enter a variety of pharmacy career pathways, including residencies and fellowships.

### **Did You Know?**

Students graduating this year will join the approximately 5,000 NSU COP alumni who are leaders in the profession, paving the way for future pharmacists, researchers, and industry leaders.

## **DREAM. DARE. DISCOVER.**



RANKING FOR DOCTORAL/PROFESSIONAL DEGREES TO HISPANIC OR LATINO STUDENTS<sup>1</sup>

### **TOP 15**

UNIVERSITY FOR DOCTORAL/PROFESSIONAL DEGREES TO BLACK OR AFRICAN AMERICAN STUDENTS <sup>1</sup>



### FOUNDED WORLD'S FIRST CENTER FOR CONSUMER HEALTH INFORMATICS RESEARCH

AS DESIGNATED AS BY THE WORLD HEALTH ORGANIZATION

### FOUNDED

ACCOUNTABLE CARE ORGANIZATION RESEARCH NETWORK, SERVICE, AND EDUCATION (ACORN SEED) TO PERFORM COMPREHENSIVE MEDICATION REVIEWS AND TRANSITIONS OF CARE SERVICE IN FORT LAUDERDALE FOUNDED DRUG INFORMATION CENTER IN PUERTO RICO





BUILT THE FIRST FOOT REFLEXOLOGY PATHWAY ON THE U.S. EAST COAST

88588<u>5</u>

<sup>1</sup> National Center for Education Statistics— Integrated Postsecondary Education Data System (IPEDS) (2014–2015)

### INTERPROFESSIONAL MEDICAL OUTREACH TRIPS

### JAMAICA DOMINICAN REPUBLIC GUATEMALA AND MORE

### **TRAVEL STUDY**

- ARGENTINA
- CHINA
- JAPAN
- SLOVAKIA SPAIN
  - UNITED KINGDOM
- PUERTO RICO

### RESIDENCIES

- GENERAL PHARMACY PRACTICE
- AMBULATORY CARE\*
- COMMUNITY PHARMACY\*
- DRUG INFORMATION
- HIV/INFECTIOUS DISEASE
- PSYCHIATRY\*
- TRANSITIONS OF CARE\*
- \* Programs currently available.

### ADVOCACY OPPORTUNITIES FLORIDA PHARMACISTS LEGISLATIVE DAYS AND HEALTH FAIR

TALLAHASSEE, FLORIDA

### **FELLOWSHIPS**

CONSUMER HEALTH INFORMATICS

COLLABORATIVE

**OF PHARMACY** 

AGREEMENTS WITH

**INTERNATIONAL COLLEGES** 

- NEUROCOGNITIVE PHARMACY
- PEDIATRIC PHARMACOTHERAPY
- ACCOUNTABLE CARE
- COMMUNITY PHARMACY



### **CREATIVE** AND ENTREPRENEURIAL PROGRAMS

- PHARMACON
- NSU CLINIC PHARMACY FORT LAUDERDALE
- CLINIC PHARMACY AT THE SOUTH FLORIDA STATE HOSPITAL
- ICUBACARES CENTER IN FORT LAUDERDALE
- GROUNDBREAKING RESEARCH AT NSU'S CENTER FOR COLLABORATIVE RESEARCH

### NSU-COP MISSION

TO EDUCATE AND DEVELOP PRACTITIONERS AND RESEARCHERS WHO, THROUGH THEIR LEADERSHIP AND ENTREPRENEURISM. WILL TRANSFORM THE PROFESSION OF PHARMACY TO **IMPROVE GLOBAL HEALTH** 



College of Pharmacy **NOVA SOUTHEASTERN UNIVERSIT** 





### College of Pharmacy Student Government Association (COP-SGA)

Highlights

- official voice for all pharmacy students
- open to all students
- welcomes proposals and participation from the entire student body

#### Responsibilities

- collecting and expressing student opinion
- dispensing funds for student activities
- acting as a liaison for the student body
- promoting pharmacy
- supporting club and class activities
- working to improve the quality of life for all pharmacy students

#### **Honor Societies**

- NSU Phi Kappa Phi
- Rho Chi

### Leadership Societies

• Phi Lambda Sigma

### **PROFESSIONAL ORGANIZATIONS**

- Academy of Managed Care Pharmacy (AMCP)
- American Pharmacists Association Academy of Student Pharmacists (APhA-ASP)
- American Society of Consultant Pharmacists (ASCP)
- Christian Pharmacist Fellowship International (CPFI)
- College of Psychiatric and Neurologic Pharmacists (CPNP)
- Graduate Association of Pharmaceutical Sciences (GAPS)
- Industrial Pharmacy Organization (IPHO)
- International Pharmacy Students' Association (IPSA)
- International Society of Pharmacoeconomics and Outcomes Research (ISPOR)
- Jewish Pharmacy Student Organization (JPSO)
- National Community Pharmacists Association (NCPA)
- Student College of Clinical Pharmacy (SCCP)
- Student National Pharmaceutical Association (SNPhA)
- Student Society of Health Systems Pharmacists (SSHP)

### FRATERNITIES

- Alpha Zeta Omega
- Kappa Psi
- Phi Delta Chi

The practice of pharmacy has evolved from a product-based profession to a patientcentered profession. The pharmacist must have a strong foundation of drug knowledge and be skilled in applying that knowledge to clinical situations, making critical decisions and communicating with the health care team.

### **Did You Know?**

Patients, prescribers, and health insurers now expect pharmacists to not only dispense drugs, but to influence the selection of medication and monitor patient outcomes for disease improvement and drug-induced side effects.

### CURRICULUM ADVANCEMENTS

*In the classroom,* students are exposed to active learning exercises, including case studies, discussions, projects, and team-based learning, to better understand the need for therapeutic interventions.

*Laboratory experiences* help students learn how to create dosage forms; work in a sterile environment; and communicate with prescribers, patients, and an interprofessional team.

*Professional pharmacy placements* allow students to experience real-life situations under the guidance of a pharmacist preceptor.

Two levels of practice occur in community, hospital, or clinic settings. Introductory Pharmacy Practice Experiences (IPPEs) expose students to pharmacy operations, medication distribution processes, and the role of the pharmacist in health care. The final year of the curriculum features Advanced Pharmacy Practice Experiences (APPEs), during which students interact with patients, prescribers, and members of the health care team to provide direct patient care, as well as management of the medication distribution process.

### **Did You Know?**

Licensed pharmacists earn certifications that allow them to perform specific clinical functions, such as immunization, medication therapy management, sterile technique, cardiovascular risk factors, management of the diabetic patient, and medication safety. Our faculty members are credentialed by national organizations allowing students to earn certificates in several topics to increase their appeal to employers and residency programs.

*Faculty mentors* guide students and help them develop leadership and professional goals.

*An electronic portfolio* called FolioRx stores examples of student achievement and a professional curriculum vitae (CV).

*A computerized database and a staffed career center* provide career opportunity leads and help identify pharmacists in different career settings to shadow.

### **PROGRAM OPTIONS**

Pharm.D. students may enter either the four-year, entry-level program or the three-year, advanced standing program (see admissions requirements for each program).

*The entry-level curriculum outline* must be completed within six academic years of the date of matriculation.

#### The advanced standing program

educates students to achieve the same outcomes as the entry-level Pharm.D. degree program, but in an accelerated format. Courses are taken with the entry-level students in an integrated classroom. Students admitted with advanced standing may have individualized coursework, depending on their previous pharmacy coursework.

*The advanced standing curriculum outline* must be completed within five academic years of the date of matriculation.

#### **PROGRAM NOTICES**

Coursework in both the entry-level and the advanced standing programs prepare students to take the

- North American Pharmacist Licensing Examination (NAPLEX)
- Multistate Pharmacy Jurisprudence Examination (MPJE)

Students in Puerto Rico are prepared for the Puerto Rico Pharmacy Jurisprudence Examination, which covers legal aspects of the pharmacy practice there.

A valid U.S. Social Security number is required to obtain a Florida intern license, which is a program requirement.

Students are responsible for having reliable transportation to attend assigned experiential sites, which may be several miles from their homes or campuses. APPEs are full-time commitments for students, requiring a minimum of 40 hours per week. Students may also be required to secure accommodation at APPE sites away from their home location.

APPEs may be taken in any sequence; however, students may not begin APPEs until all required didactic courses, electives, IPPEs, and assessments are successfully completed.



Students are selected based on

- prepharmacy academic performance
- Pharmacy College Admission Test (PCAT) scores
- personal interviews
- written applications
- letters of evaluation

Requirements for all applicants (unless specifically stated otherwise) include

1. **completion of a minimum of 64 semester hours of coursework** at a regionally accredited college or university, prior to matriculation, including the following required courses, with a minimum GPA of 2.0 on a 4.0 scale

| REQUIRED COURSE   | SEMESTER HOURS |
|---|----------------|
| <ul> <li>General biology I and II including laboratory</li> </ul>   | 6              |
| <ul> <li>Anatomy and physiology (with or without laboratory)</li> </ul>   | 6              |
| <ul> <li>General chemistry including laboratory</li> </ul>  | 8              |
| <ul> <li>Organic chemistry including laboratory</li> </ul>  | 8              |
| <ul> <li>General physics (with or without laboratory)</li> </ul>  | 3              |
| • English   | 6              |
| • Calculus  | 3              |
| <ul> <li>Speech/public speaking/oral communication<br/>(in English)</li> </ul>  | 3              |
| <ul> <li>Advanced sciences (choose two of the following course<br/>genetics, cellular biology, molecular biology,<br/>microbiology, or biochemistry)</li> </ul> | s:<br>6*       |
| <ul> <li>Humanities or social/behavioral sciences</li> </ul>  |                |
| <ul> <li>Social behavioral sciences</li> </ul>  | 3              |
| * Humanities  | 3              |
| <ul> <li>Electives in either discipline</li> </ul>  | 9**            |
| Total   | 64             |

\*No two classes taken should be from the same discipline.

\*\*Ethics, micro or macroeconomics, and general/life sciences statistics are highly recommended and may substitute for up to 9 humanities and social/behavioral science electives credits.

- 2. a cumulative GPA of 2.75 or higher and a minimum science and math GPA of 2.0 on a 4.0 scale
- submission of official scores from the Pharmacy College Admission Test (PCAT)<sup>^</sup> Scores must be no more than three years old at the time of the applicant's interview.
- ^ NSU COP will accept scores from the following admissions tests in place of the PCAT: GRE, MCAT, DAT, or OAT.



Applicants should take the PCAT no later than April prior to the expected date of matriculation. Candidates may register online at *pcatweb.info* or call 800-622-3231 with any questions.

4. submission of three letters of reference from the pre-professional committee—or if such a committee does not exist, letters of reference from two science professors and one liberal arts professor (A letter of reference from a pharmacist may substitute for one letter from a professor in either subject.)





### **STEPS SUMMARY**

- 1. Apply to PharmCAS.
- 2. Send supporting documents to PharmCAS.
- 3. Submit a nonrefundable, \$50 application fee with your supplemental application.
- 4. Participate in a personal interview, if offered.

Applicants apply for matriculation into the fall semester.

### ✓ TIPS

- •The Office of Admissions processes applications on a rolling basis; therefore, it is in the best interest of the applicant to apply early.
- •The PharmCAS application process may take up to six weeks.

#### 1. Apply to PharmCAS electronically through PharmCAS.org.

- Early Decision deadline is September 3.
- Regular admission deadline is May 1.

#### 2. Send supporting documents to PharmCAS.

- official transcripts from all colleges and universities attended (submitted directly to PharmCAS by the college or university and/or foreign credential evaluation service)\*
- three letters of reference
- official PCAT scores
- 3. Submit a \$50 (U.S.), nonrefundable application fee and a complete supplemental application online via an emailed link that is sent once NSU has received the PharmCAS application.
  - Early decision deadline is October 10.
  - Regular admission deadline is June 15.

#### 4. Participate in a personal interview, if offered.\*

\*See pages 44 and 45 for details.

### EARLY DECISION

The Early Decision Program is a binding option for applicants who decide that a Pharm.D. program is their first choice, and they will enroll if accepted. As an Early Decision applicant, you can apply to only one Pharm.D. program.

If you are offered admission as an Early Decision applicant, you are obligated to accept the offer, and are not permitted to apply to other PharmCAS Pharm.D. programs during the current admissions cycle. However, if you are denied admission as an Early Decision applicant, you may apply to other Pharm.D. programs. Visit the PharmCAS website at *PharmCAS.org* for more information.

### DOCTOR OF PHARMACY (PHARM.D.) ENTRY-LEVEL CURRICULUM OUTLINE

### First Year

| COURSE TITLE  | CREDITS |
|---|---------|
| Patient Care Basics                                 | 2       |
| Biochemical Basis of Drug Therapy                   | 2       |
| Fundamentals of Pharmacodynamics                    | 3       |
| Dosage Forms and Drug Delivery                      | 4       |
| Pharmaceutical Calculations                         | 1       |
| Essentials of Professional Practice I               | 2       |
| Evidence-Based Practice I                           | 1       |
| Leadership and Professional Development I           | 1       |
| Pharmacy Skills Development I                       | 1       |
| Integrated Pharmacy Applications I                  | 2       |
| Nonprescription Drugs and Self-Care                 | 3       |
| Individualized Drug Therapy I: Pharmacokinetics     | 3       |
| Individualized Drug Therapy II: Special Populations | 2       |
| Integrated Disease Management I                     | 3       |
| Essentials of Professional Practice II              | 2       |
| Evidence-Based Practice II                          | 2       |
| Leadership and Professional Development II          | 1       |
| Pharmacy Skills Development II                      | 1       |
| Integrated Pharmacy Applications II                 | 2       |
| IPPE: Community                                     | 4       |
| Total First Year                                    | 42      |

### Second Year

| COURSE TITLE                                | CREDITS |
|---|---------|
| Patient and Physical Assessment             | 2       |
| Integrated Disease Management II            | 4       |
| Integrated Disease Management III           | 4       |
| Essentials of Professional Practice III     | 2       |
| Evidence-Based Practice III                 | 2       |
| Leadership and Professional Development III | 1       |
| Pharmacy Skills Development III             | 1       |
| Integrated Pharmacy Applications III        | 2       |
| Immunology and Clinical Microbiology        | 2       |
| Integrated Disease Management IV            | 5       |
| Integrated Disease Management V             | 3       |
| Essentials of Professional Practice IV      | 2       |
| Evidence-Based Practice IV                  | 2       |
| Leadership and Professional Development IV  | 1       |
| Pharmacy Skills Development IV              | 1       |
| Integrated Pharmacy Applications IV         | 2       |
| IPPE: Health Systems                        | 4       |
| Electives                                   | 4       |
| Total First Year                            | 44      |

### Third Year

| COURSE TITLE                              | CREDITS |
|---|---------|
| Sterile Products Laboratory               | 1       |
| Integrated Disease Management VI          | 1       |
| Integrated Disease Management VII         | 4       |
| Integrated Disease Management VIII        | 1       |
| Essentials of Professional Practice V     | 4       |
| Evidence-Based Practice V                 | 2       |
| Leadership and Professional Development V | 1       |
| Pharmacy Skills Development V             | 1       |
| Integrated Pharmacy Applications V        | 2       |
| Elective                                  | 2       |
| Integrated Care                           | 4       |
| APPE: Internal Medicine                   | 6       |
| APPE: Ambulatory Care                     | 6       |
| Total Third Year                          | 35      |

#### **Fourth Year**

| COURSE TITLE             | CREDITS |
|--------------------------|---------|
| APPE: Advanced Hospital  | 6       |
| APPE: Community Practice | 6       |
| APPE: Elective I         | 6       |
| APPE: Elective II        | 6       |
| APPE: Elective III       | 6       |
| APPE: Elective IV        | 6       |
| Curricular Review I      | 1       |
| Curricular Review II     | 1       |
| Curricular Review III    | 1       |
| Total Fourth Year        | 39      |
| Total Curriculum         | 160     |

IPPE = Introductory Pharmacy Practice Experience

APPE = Advanced Pharmacy Practice Experience

These courses are representative of the overall requirements of the program at the time of publication and are subject to change. Curriculum updates will be posted online at *pharmacy.nova.edu*.

### DOCTOR OF PHARMACY (PHARM.D.) ADVANCED STANDING ADMISSIONS REQUIREMENTS

NSU's College of Pharmacy selects international pharmacy graduates for the program based on

- previous academic performance
- TOEFL/IELTS scores (if applicable)
- written applications
- pharmacy experience
- letters of reference

Applicants who graduated from pharmacy school 10 or more years prior must

#### have either

- taken two upper-level (3000- or 4000-level) science courses or one upper-level science course and one upper-level statistics course in the United States within the last 10 years
- OR
- practiced as a licensed pharmacist for greater than 50 percent of the time since pharmacy school graduation (Proof of licensed pharmacist employment, including dates and position[s] held, must be provided via a letter of recommendation from the applicant's employer.)

Admissions Requirements for All Applicants

### 1. completion of a Bachelor of Pharmacy degree or a Bachelor of Science degree in Pharmacy from an accredited institution

Official transcripts will be reviewed for successful completion of the courses listed below with a grade of C or higher.

| REQUIRED COURSES       | SEMESTER HOURS |
|------------------------|----------------|
| Anatomy and physiology | 6              |
| Biochemistry           | 4              |
| Microbiology           | 3              |
| Pharmacology           | 6              |
| Pharmaceutics          | 6              |
| Pharmacokinetics       | 4              |

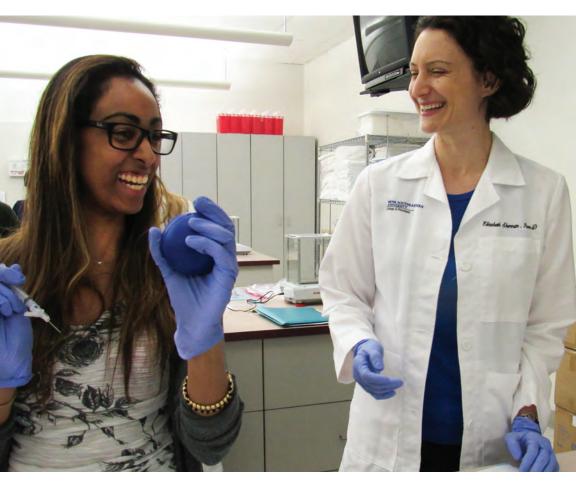
Additional prerequisite courses may be required.

- 2. a minimum 2.75 GPA on a 4.0 scale on all college-level coursework completed
- 3. an official course-by-course evaluation of foreign coursework with the cumulative grade point average included (See Application Procedures for further details.)

- 4. proof of English proficiency (See page 44.)
- 5. **three letters of reference** from the dean/director of a pharmacy program, registered pharmacists, or professors



It is strongly recommended that applicants submit official scores from the Graduate Record Examination (GRE) and/or the Pharmacy College Admission Test (PCAT).





### **STEPS SUMMARY**

- 1. Apply to PharmCAS.
- 2. Send supporting documents to PharmCAS.
- 3. Submit a nonrefundable, \$50 application fee with your supplemental application.
- 4. Participate in a personal interview, if offered.

Applicants apply for matriculation into the summer semester.

### ✓ TIPS

- The Office of Admissions processes applications on a rolling basis; therefore, it is in the best interest of the applicant to apply early.
- The PharmCAS application process takes up to six weeks.

#### 1. Apply to PharmCAS electronically through PharmCAS.org.

- Early Decision deadline is September 3.
- Regular admission deadline is May 1.

#### 2. Send supporting documents to PharmCAS.

- official transcripts from all colleges and universities attended (submitted directly to PharmCAS by the college or university and/or foreign credential evaluation service)\*
- three letters of reference
- official PCAT or GRE scores
- proof of English proficiency (required of all nonnative English speakers)\*
- 3. Submit a \$50 (U.S.), nonrefundable application fee and a completed supplemental application online via an emailed link that is sent once NSU has received the PharmCAS application.
  - Early decision deadline is October 10.
  - Regular admission deadline is June 15.

#### 4. Participate in a personal interview, if offered.\*

\*See pages 44 and 45 for details.

#### EARLY DECISION

The Early Decision Program is a binding option for applicants who decide that a Pharm.D. program is their first choice, and they will enroll if accepted. Early Decision applicants can apply to only one Pharm.D. program.

If you are offered admission as an Early Decision applicant, you are obligated to accept the offer, and are not permitted to apply to other PharmCAS Pharm.D. programs during the current admissions cycle. However, if you are denied admission as an Early Decision applicant, you may apply to other Pharm.D. programs. *Visit PharmCAS.org* for more information.

### DOCTOR OF PHARMACY (PHARM.D.) ADVANCED STANDING CURRICULUM OUTLINE

#### First Year—Summer Foundations

| COURSE TITLE               | CREDIT HOURS |
|----------------------------|--------------|
| Foundations of Pharmacy I  | 2            |
| Foundations of Pharmacy II | 5            |
| Total                      | 7            |

### First Year-Fall/Winter

| COURSE TITLE                                | CREDIT HOURS |
|---|--------------|
| Essentials of Professional Practice III     | 2            |
| Essentials of Professional Practice IV      | 2            |
| Evidence-Based Practice III                 | 2            |
| Evidence-Based Practice IV                  | 2            |
| Foundations of Pharmacy III                 | 2            |
| Immunology and Clinical Microbiology        | 2            |
| Integrated Disease Management II            | 4            |
| Integrated Disease Management III           | 4            |
| Integrated Disease Management IV            | 5            |
| Integrated Disease Management V             | 3            |
| Integrated Pharmacy Applications III        | 2            |
| Integrated Pharmacy Applications IV         | 2            |
| IPPE: Community                             | 4            |
| Leadership and Professional Development III | 1            |
| Leadership and Professional Development IV  | 1            |
| Patient and Physical Assessment             | 2            |
| Pharmacy Skills Development III             | 1            |
| Pharmacy Skills Development IV              | 1            |
| Elective                                    | 2            |
|   |              |

## Total44Total First Year51

### Second Year

| COURSE TITLE                              | CREDIT HOURS |
|---|--------------|
| Essentials of Professional Practice V     | 4            |
| Evidence-Based Practice V                 | 2            |
| Integrated Care                           | 4            |
| Integrated Disease Management VI          | 1            |
| Integrated Disease Management VII         | 4            |
| Integrated Disease Management VIII        | 1            |
| Integrated Pharmacy Applications V        | 2            |
| IPPE: Health Systems                      | 4            |
| Leadership and Professional Development V | 1            |
| Pharmacy Skills Development V             | 1            |
| Sterile Products Laboratory               | 1            |
| APPE: Ambulatory Care                     | 6            |
| APPE: Internal Medicine                   | 6            |
| Total Second Year                         | 37           |

#### **Third Year**

| COURSE TITLE             | CREDIT HOURS |
|--------------------------|--------------|
| APPE: Advanced Hospital  | 6            |
| APPE: Community Practice | 6            |
| APPE: Elective I         | 6            |
| APPE: Elective II        | 6            |
| APPE: Elective III       | 6            |
| Curricular Review I      | 1            |
| Curricular Review II     | 1            |
| Curricular Review III    | 1            |
| Total Third Year         | 33           |
| Total Curriculum         | 121          |

IPPE = Introductory Pharmacy Practice Experience

APPE = Advanced Pharmacy Practice Experience

Students in the advanced standing program take courses with the entry-level students and enter as second-year students.

These courses are representative of the overall requirements of the program at the time of publication and are subject to change. Curriculum updates will be posted online at *pharmacy.nova.edu*.

Eligible Pharm.D. students can apply to earn a concurrent degree after successfully completing first-year pharmacy coursework. Dual-degree students report increased job opportunities and job satisfaction.

### MASTER OF BUSINESS ADMINISTRATION (PHARM.D./M.B.A.)

Combine a Pharm.D. degree with an M.B.A. to prepare for highly competitive management and administrative positions in business and pharmacy and improve skills in problem solving, leadership, communication, and writing.

### MASTER OF PUBLIC HEALTH (PHARM.D./M.P.H.)

Experts in public health study disease trends and help combat outbreaks of disease. Graduates study disease prominence, susceptible populations, and effects of treatment.

Pharm.D./M.P.H. graduates possess skills to influence social and health policies at the federal, state, and local levels, or to guide policies of schools, hospitals, clinics, or the pharmaceutical industry.

### **Did You Know?**

The shrinking health care dollar, selection of appropriate patients for care, and the growing resistance of bacteria are examples where guidance by pharmacy specialists has become critical.

### MASTER OF SCIENCE IN BIOMEDICAL INFORMATICS (PHARM.D./M.S.)

Experts in medical informatics are critical for planning and establishing electronic patient records, communication of health care information, and analysis of results for improving patient outcome and economic viability of health care providers. Whether in public organizations, health care systems, industry, or government agencies, Pharm.D./ M.S. graduates are prepared to lead institutional efforts to provide an extensive electronic environment where medication use is optimized, tracked, and assessed for safe, evidence-based practice.

### M.S. IN PHARMACEUTICAL AFFAIRS PROGRAM DESCRIPTION

The Master of Science (M.S.) in Pharmaceutical Affairs is a one-year graduate program designed for students interested in the acquisition of knowledge and skills associated with pharmaceutical agents. The degree will prepare students for managerial or sales positions in the pharmaceutical industry, or positions in academia, contract research organizations, managed care organizations, health care systems, and governmental and nongovernmental agencies. Graduates will be able to critically analyze issues related to the production and use of pharmaceuticals and act as leaders in the field.

This program is located at the NSU Miami Campus near the Florida Turnpike and Kendall Drive.

Off-campus housing is available.



### M.S. IN PHARMACEUTICAL AFFAIRS ADMISSIONS REQUIREMENTS

The Master of Science in Pharmaceutical Affairs program bases its selection of candidates on

- academic performance
- Pharmacy College Admission Test (PCAT) or Graduate Record Exam (GRE) scores
- personal interviews
- written applications
- letters of reference

Admissions Requirements for All Applicants

- 1. completion of a baccalaureate degree from a regionally accredited college or university—any field of study as long as all prerequisites are met
- 2. completion of the following prerequisite coursework at a regionally accredited college or university with a minimum GPA of 2.0 on a 4.0 scale

| COURSE  | SEMESTER HOURS |
|---|----------------|
| General biology I and II including laboratory   | 6              |
| Anatomy and physiology<br>(with or without laboratory)  | 6              |
| General chemistry including laboratory  | 8              |
| Organic chemistry including laboratory  | 8              |
| General physics (with or without laboratory)  | 3              |
| English   | 6              |
| Calculus  | 3              |
| Speech/public speaking/oral communication<br>(in English)   | 3              |
| Advanced sciences (choose two of the following<br>courses: genetics, cellular biology, molecular<br>biology, microbiology, or biochemistry) | 6*             |
| Humanities or social/behavioral sciences  | 3              |
| Humanities  | 3              |
| Electives in humanities or social/behavioral sciences   | 9**            |
| Total   | 64             |

\*No two classes taken should be from the same discipline.

\*\*Ethics, micro or macroeconomics, and general/life sciences statistics are highly recommended and may substitute for up to 9 humanities and social/behavioral science elective credits.

#### 3. a minimum cumulative GPA of 2.5 on a 4.0 scale

#### 4. submission of official PCAT or GRE scores

- a. PCAT scores must be no more than three years old at the time of application. Applicants should take the PCAT no later than January prior to the expected date of matriculation. Register online at *pcatweb.info* or call 800-622-3231 if you have any questions.
- b. GRE Scores must be no more than three years old at the time of application. Applicants should take the GRE no later than April prior to the expected date of matriculation. Register online at *gre.org* or call (609) 921-9000 if you have any questions.
- two letters of reference from a pre-professional committee—or, if such a committee does not exist, letters of reference from one science professor and one liberal arts professor.

#### Admissions Requirements for Foreign Pharmacy Graduates

- 1. a Bachelor of Pharmacy degree or a Bachelor of Science degree in Pharmacy from an accredited institution
- 2. completion of the coursework below with a minimum GPA of 2.0 on a 4.0 scale

| COURSES                | SEMESTER HOURS |
|------------------------|----------------|
| Anatomy and physiology | 6              |
| Biochemistry           | 4              |
| Microbiology           | 3              |
| Pharmacology           | 6              |
| Pharmaceutics          | 6              |
| Pharmacokinetics       | 4              |
| Total                  | 29             |

Foreign pharmacy graduates must also complete numbers 3, 4, and 5 on this page.

#### **STEPS SUMMARY**

- 1. Apply to PharmGrad.
- 2. Send supporting documents to PharmGrad.
- 3. Submit a nonrefundable, \$50 application fee with your supplemental application.
- 4. Participate in a personal interview, if offered.

Applicants apply for matriculation into the fall semester.

### ✓ TIPS

- The Office of Admissions processes applications on a rolling basis; therefore, it is in the best interest of the applicant to apply early.
- The PharmGrad application process may take up to six weeks to complete.
- 1. Apply to PharmGrad electronically through Pharmgrad.org.
  - Deadline to apply is May 1.

#### 2. Send supporting documents to PharmGrad.

- official transcripts from all colleges and universities attended (submitted directly to PharmGrad by the college or university and/or foreign credential evaluation service)\*
- two letters of reference
- official PCAT and/or GRE scores
- proof of English proficiency (required of all nonnative English speakers)\*
- 3. Submit a \$50 (U.S.), nonrefundable application fee and completed supplemental application online via an emailed link that is sent once NSU has received the PharmGrad application.
  - Regular admission deadline is June 15.

#### 4. Participate in a personal interview, if offered.\*

\*See pages 44 and 45 for details.

# M.S. IN PHARMACEUTICAL AFFAIRS CURRICULUM OUTLINE

#### Fall

| COURSE TITLE  | CREDITS |
|---|---------|
| Biochemical Basis of Drug Therapy*                      | 2       |
| Drug Medication and Society: History and Current Issues | 3       |
| Evidence-Based Practice I*                              | 1       |
| Fundamentals of Pharmacodynamics*                       | 3       |
| Knowledge Skills for the Health Care Environment        | 2       |
| Pharmaceutical Marketing                                | 2       |
| Population Health and Public Policy                     | 2       |

#### Winter

| COURSE TITLE   | CREDITS |
|--|---------|
| Bioethics  | 2       |
| Evidence-Based Practice II*                          | 2       |
| Health Economics                                     | 2       |
| Individualized Drug Therapy I: Pharmacokinetics*     | 3       |
| Individualized Drug Therapy II: Special Populations* | 2       |
| Nonprescription Therapies                            | 2       |
| Regulatory Affairs                                   | 2       |

#### Second Year—Summer

| COURSE TITLE                                   | CREDITS |
|--|---------|
| Integrative Capstone in Pharmaceutical Affairs | 6       |
| Elective                                       | 2       |
| Total  | 38      |

\*Courses are eligible for transfer into the Pharm.D. program, if requirements are met (maximum of 8 credits, B+ or higher).

These courses are representative of the overall requirements of the program at the time of publication and are subject to change. Curriculum updates will be posted online at *pharmacy.nova.edu*.



# MASTER OF SCIENCE (M.S.) IN PHARMACEUTICAL SCIENCES **PROGRAM DESCRIPTION**

The Master of Science (M.S.) in Pharmaceutical Sciences is a two-year, graduate program with one of three unique areas of emphasis.

- 1. Molecular Medicine and Pharmacogenomics—centering on drug discovery principles
- 2. Drug Development (Pharmaceutics)—focusing on drug delivery to the desired target
- 3. Social and Administrative Pharmacy—concerned with the interface between pharmacy and society (pharmacy outcomes)

Upon successful completion of this degree, students are prepared for further study in a doctoral program, medicine, or a health-related discipline.

### M.S. IN PHARMACEUTICAL SCIENCES ADMISSIONS REQUIREMENTS

Students applying to the Molecular Medicine and Pharmacogenomics or the Drug Development (Pharmaceutics) sequences are required to have earned a Bachelor of Science degree in pharmacy, chemistry, biology, or a related scientific area.

Students applying to the Social and Administrative Pharmacy sequence are required to have earned a Bachelor of Science degree in pharmacy, economics, statistics, public health, health services research, or other related fields.

The college also considers

- work history
- extracurricular activities
- life experiences

#### Admissions Requirements for All Sequences

- 1. an earned baccalaureate degree from a regionally accredited institution of higher education
- 2. a minimum cumulative GPA of 3.0 on a 4.0 scale
- 3. submission of official scores from the Graduate Record Examination (GRE)
  - Scores must be less than five years old at the time of application.
    - For more information, please visit gre.org.
- 4. three letters of reference from professors or supervisors in the applicant's field of study

### **STEPS SUMMARY**

- 1. Apply to PharmGrad.
- 2. Send supporting documents to PharmGrad.
- 3. Submit a nonrefundable, \$50 application fee with your supplemental application.
- 4. Participate in a personal interview, if offered.

Applicants apply for matriculation into the fall semester.

### ✓ TIPS

- •The Office of Admissions processes applications on a rolling basis; therefore, it is in the best interest of the applicant to apply early.
- The PharmGrad application process may take up to six weeks to complete.
- 1. Apply to PharmGrad electronically through Pharmgrad.org.
  - Deadline to apply is May 1.

#### 2. Send supporting documents to PharmGrad.

- official transcripts from all colleges and universities attended (submitted directly to PharmGrad by the college or university and/or foreign credential evaluation service)\*
- three letters of reference
- official GRE scores
- proof of English proficiency (required of nonnative English speakers)\*
- 3. Submit a \$50 (U.S.), nonrefundable application fee and a completed supplemental application online via an emailed link that is sent once NSU has received the PharmGrad application.
  - Deadline to apply is June 15.
- 4. Participate in a personal interview, if offered.\*

\*See pages 44 and 45 for details.

## Molecular Medicine and Pharmacogenomics

## **First and Second Years**

| COURSE TITLE  | CREDIT HOURS |
|---|--------------|
| Advanced Pharmacogenomics and Molecular Medicine                          | 3            |
| Advanced Physical Pharmacy  | 3            |
| Bioethics: Principles of Life Science Research*                           | 3            |
| Biostatistics   | 3            |
| Clinical Drug Development: Advanced Pharmacokinetics and Biopharmaceutics | 3            |
| Graduate Seminar**  | 4            |
| Molecular and Cellular Pharmacodynamics                                   | 3            |
| Pharmaceutical Sciences Research Design                                   | 1            |
| Research Project  | 4            |
| Research Techniques and Instrumentation                                   | 3            |
| Scientific Writing*   | 1            |
| Elective(s)   | 5-6          |
| Total   | 36-37        |

## Drug Development (Pharmaceutics) First and Second Years

| COURSE TITLE   | CREDIT HOURS |
|--|--------------|
| Advanced Physical Pharmacy   | 3            |
| Bioethics: Principles of Life Science Research*                              | 3            |
| Biostatistics  | 3            |
| Clinical Drug Development: Advanced Pharmacokinetics<br>and Biopharmaceutics | 3            |
| Graduate Seminar**   | 4            |
| Molecular and Cellular Pharmacodynamics                                      | 3            |
| Pharmaceutical Sciences Research Design                                      | 1            |
| Product Development and Industrial Pharmacy                                  | 3            |
| Research Project   | 4            |
| Research Techniques and Instrumentation                                      | 3            |
| Scientific Writing*  | 1            |
| Elective(s)  | 5-6          |
| Total  | 36-37        |

## Social and Administrative Pharmacy

## First and Second Years

| COURSE TITLE                                    | CREDIT HOURS |
|---|--------------|
| Bioethics: Principles of Life Science Research* | 3            |
| Biostatistics                                   | 3            |
| Graduate Seminar**                              | 4            |
| Health Economics                                | 3            |
| Pharmacoeconomics                               | 3            |
| Pharmacy Management and Finance                 | 3            |
| Population Health and Public Policy             | 3            |
| Research Project                                | 4            |
| Scientific Writing*                             | 1            |
| Social Measurement and Techniques               | 3            |
| Theories of Health-Seeking Behavior             | 3            |
| Elective  | 3            |
| Total   | 36           |

#### \*HPD Core Courses

## \*\*Repeatable course

These courses are representative of the overall requirements of the program at the time of publication and are subject to change. Updates to the curriculum will be posted online at *pharmacy.nova.edu*. Upon successful completion of the M.S. program, students are eligible to apply for the Ph.D. program.



Pharmacy graduate students must select one of the following three sequences to focus their studies upon:

- Social and Administrative Pharmacy
- Drug Development (Pharmaceutics)
- Molecular Medicine and Pharmacogenomics

Research topics available to students are consistent with the expertise of faculty members in the College of Pharmacy (COP). In addition, the Ph.D. program meets the criteria for accreditation set by the Commission on Colleges of the Southern Association of Colleges and Schools.

## SOCIAL AND ADMINISTRATIVE PHARMACY

Focuses on research skills and coursework to address the dynamic and complex nature of use and distribution of pharmaceutical products and the provision of pharmacy services. Students are expected to conduct their dissertation research in

1. sociobehavioral and cultural pharmacy

OR

2. pharmacy economics and outcomes

Students are under the tutelage of faculty members in the department of sociobehavioral and administrative pharmacy, a group with expertise in pharmacoeconomics, health disparities and vulnerable populations, cultural competency, development and implementation of sustainable pharmacy services, patients' decision making, pharmacy marketing, outcomes research, and related areas.

## DRUG DEVELOPMENT (PHARMACEUTICS)

Emphasizes coursework, laboratory, and research skills that are integral to the theory and development of drug formulations. Students are advised by faculty members in the department of pharmaceutical sciences, a group with expertise in pharmaceuticalrelated disciplines. Particular areas of expertise include new dosage form design, advanced drug formulations, and tailor-made delivery technologies.

## MOLECULAR MEDICINE AND PHARMACOGENOMICS

Concentrates on coursework, laboratory, and literature research skills integral to elucidation of the mechanism of action of drugs, as well as the extent and characteristics of drug actions. Students will be advised by faculty members in the department of pharmaceutical sciences, a group with expertise in pharmacology, pharmacogenomics, toxicology, and biochemistry. Particular areas of interest include cardiovascular pharmacology, neuropharmacology, and cancer pharmacology.

## REQUIREMENTS ACROSS ALL DISCIPLINES

- a minimum of 60 credits, at least 36 of which must be in didactic coursework (Coursework aimed at filling academic gaps in a student's background will not count toward program requirements.)
- a minimum cumulative GPA of 3.0 on a 4.0 scale, which must be maintained
- a written or comprehensive exam
- oral qualifying examination
- research culminating in a successfully defended dissertation

## **GRADUATES WILL**

- demonstrate the knowledge expected at the Ph.D. level in their specialty
- design and conduct independent research that adds to the understanding of their specialty
- prepare and defend rational and structured proposals seeking support for research
- effectively communicate their own research results
- be competitive for careers in academia, industry, government, or regulatory positions

#### ACCREDITATIONS

Nova Southeastern University College of Pharmacy's Doctor of Pharmacy Program is accredited by the Accreditation council for Pharmacy Education, 190 S. LaSalle Street, Suite 2850, Chicago, IL 60603-3410. FAX 866-228-2631, website *www.acpe-accredit.org*. The College of Pharmacy is a member of the American Association of Colleges of Pharmacy.

Nova Southeastern University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate's, baccalaureate, master's, educational specialist, doctorate, and professional degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Nova Southeastern University.

#### 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, Title IX, and the Florida Civil Rights Act), 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, gender, gender identity, military service, 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. Any such acts are unacceptable and strictly prohibited by the university.

In addition, the law prohibits retaliation against an individual for opposing any practices forbidden under this policy, for bringing a complaint of discrimination or harassment, for assisting someone with such a complaint, for attempting to stop such discrimination or harassment, or for participating in any manner in any investigation or resolution of a complaint of discrimination or harassment. 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, gender, gender identity, military service, 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.

## PH.D. IN PHARMACEUTICAL SCIENCES ADMISSIONS REQUIREMENTS

Students applying to the Drug Development (Pharmaceutics) or the Molecular Medicine and Pharmacogenomics sequences are required to have earned a Bachelor of Science degree in pharmacy, chemistry, biology, or a related scientific area.

Students applying to the Social and Administrative Pharmacy sequence are required to have earned a Bachelor of Science degree in pharmacy, economics, statistics, public health, health services research, or other related fields.

The college also considers

- work history
- extracurricular activities
- life experiences

## Admissions Requirements for All Sequences

- 1. an earned baccalaureate degree from a regionally accredited institution of higher education
- 2. a minimum cumulative GPA of 3.0 on a 4.0 scale
- 3. submission of official scores from the Graduate Record Examination (GRE)
  - Scores must be less than five years old at the time of application.
  - For more information, please visit *gre.org*.
- 4. three letters of reference from professors or supervisors in the applicant's field of study



## **STEPS SUMMARY**

- 1. Apply to PharmGrad.
- 2. Send supporting documents to PharmGrad.
- 3. Submit a nonrefundable, \$50 application fee with your supplemental application.
- 4. Participate in a personal interview, if offered.

Applicants apply for matriculation into the fall semester.

# ✓ TIPS

- •The Office of Admissions processes applications on a rolling basis; therefore, it is in the best interest of the applicant to apply early.
- The PharmGrad application process may take up to six weeks to complete.
- 1. Apply to PharmGrad electronically through Pharmgrad.org.
  - Deadline to apply is May 1.

#### 2. Send supporting documents to PharmGrad.

- official transcripts from all colleges and universities attended (submitted directly to PharmGrad by the college or university and/or foreign credential evaluation service)\*
- three letters of reference
- official GRE scores
- proof of English proficiency (required of nonnative English speakers)\*
- 3. Submit a \$50 (U.S.), nonrefundable application fee and a completed supplemental application online via an emailed link that is sent once NSU has received the PharmGrad application.
  - Deadline to apply is June 15.
- 4. Participate in a personal interview, if offered.\*

\*See pages 44 and 45 for details.

## **Did You Know?**

Students in the Ph.D. program are eligible to apply for a concurrent degree in the M.S. program.

## SOCIAL AND ADMINISTRATIVE PHARMACY First and Second Years

| COURSE TITLE                                   | CREDIT HOURS |
|--|--------------|
| Advanced Biostatistics I*                      | 3            |
| Advanced Biostatistics II*                     | 3            |
| Advanced Quantitative Methods                  | 3            |
| Bioethics Principles of Life Science Research* | 3            |
| Graduate Research                              | 3-12         |
| Graduate Seminar**                             | 1-4          |
| Health Economics                               | 3            |
| Pharmaceutical Marketing                       | 3            |
| Pharmacoeconomics                              | 3            |
| Pharmacy Management and Finance                | 3            |
| Population Health and Public Policy            | 3            |
| Research Design*                               | 3            |
| Research Funding and Proposal Development*     | 1            |
| Scientific Writing*                            | 1            |
| Social Measurement and Techniques              | 3            |
| Theories of Health-Seeking Behavior            | 3            |
| Elective(s)                                    | 3-6          |

## **Third Year**

| COURSE TITLE               | CREDIT HOURS |
|----------------------------|--------------|
| Advanced Graduate Research | 5            |
| Dissertation Research      | 8–16         |
| Graduate Seminar**         | 1-2          |
| Elective(s)                | 3            |

## Fourth Year<sup>^</sup>

| COURSE TITLE                                      | CREDIT HOURS |
|---|--------------|
| Dissertation Research**                           | 8-16         |
| Graduate Seminar**                                | 1-2          |
| Minimum number of credits required for graduation | 104          |

## DRUG DEVELOPMENT (PHARMACEUTICS) First and Second Years

| COURSE TITLE                                    | CREDIT HOURS |
|---|--------------|
| Advanced Biostatistics I*                       | 3            |
| Advanced Pharmacokinetics and Biopharmaceutics  | 3            |
| Advanced Physical Pharmacy                      | 3            |
| Advanced Topics in Pharmaceutical Sciences      | 1            |
| Bioethics: Principles of Life Science Research* | 3            |
| Graduate Research**                             | 3–18         |
| Graduate Seminar**                              | 1-4          |
| Pharmaceutical Sciences Research Design         | 1            |
| Product Development and Industrial Pharmacy     | 4            |
| Research Funding and Proposal Development*      | 1            |
| Research Techniques and Instrumentation         | 3            |
| Scientific Writing*                             | 1            |
| Elective(s)                                     | 3-6          |

## Third Year

| COURSE TITLE                               | CREDITS |
|--|---------|
| Advanced Topics in Pharmaceutical Sciences | 1-2     |
| Dissertation Research**                    | 8-24    |
| Graduate Seminar**                         | 1-2     |

## Fourth Year<sup>^</sup>

| COURSE TITLE                                      | CREDITS |
|---|---------|
| Dissertation Research**                           | 8–16    |
| Graduate Seminar**                                | 1-2     |
| Minimum number of credits required for graduation | 97      |





#### MOLECULAR MEDICINE AND PHARMACOGENOMICS First and Second Years

| COURSE TITLE                                     | CREDIT HOURS |
|--|--------------|
| Advanced Biostatistics I*                        | 3            |
| Advanced Pharmacogenomics and Molecular Medicine | 3            |
| Advanced Pharmacokinetics and Biopharmaceutics   | 3            |
| Applied Pharmacology                             | 3            |
| Bioethics Principles of Life Science Research*   | 3            |
| Advanced Pharmacology                            | 4            |
| Experimental Statistics and Informatics          | 1            |
| Graduate Research**                              | 3-18         |
| Graduate Seminar**                               | 1-4          |
| Journal Club                                     | 1            |
| Molecular and Cellular Pharmacodynamics          | 3            |
| Pharmaceutical Sciences Research Design          | 1            |
| Research Funding and Proposal Development*       | 1            |
| Research Techniques and Instrumentation          | 3            |
| Scientific Writing*                              | 1            |
| Elective(s)                                      | 3-6          |

## Third Year

| COURSE TITLE            | CREDIT HOURS |
|-------------------------|--------------|
| Dissertation Research** | 8-24         |
| Graduate Seminar**      | 1-2          |

## Fourth Year<sup>^</sup>

| COURSE TITLE            | CREDIT HOURS |
|-------------------------|--------------|
| Dissertation Research** | 8-16         |
| Graduate Seminar**      | 1-2          |
|                         |              |

Minimum number of credits required for graduation 102

\*HPD Core Courses \*\*Repeatable course

<sup>^</sup>Additional years may be required to complete the dissertation research. The curriculum for subsequent years is identical to the fourth year (maximum seven years allowed for Ph.D. completion).

Notes

- Qualifying exams for SAP commence during the summer semester of the second year.
- Graduation from the program requires the preparation and successful defense of a dissertation.

These courses are representative of the overall requirements of the program at the time of publication and are subject to change. Curriculum updates will be posted online at *pharmacy.nova.edu*.

# FOREIGN COURSEWORK

Coursework taken at foreign institutions must be evaluated for U.S. institution equivalence by an approved National Association of Credential Evaluation Services (NACES) organization, such as one of the services listed below.

Consultants

73-1338 fax

| World Education Services, Inc.          | Josef Silny & Associates, Inc., |
|---|---------------------------------|
| Bowling Green Station                   | International Education Consu   |
| P.O. Box 5087                           | 7101 SW 102 Avenue              |
| New York, New York 10274-5087           | Miami, Florida 33173            |
| (212) 966-6311 • wes.org                | (305) 273-1616 • (305) 273-133  |
| Educational Credential Evaluators, Inc. | info@jsilny.org • jsilny.org    |
| P.O. Box 514070                         |                                 |
| Milwaukee, Wisconsin 53203-3470         |                                 |
|   |                                 |

It is the applicant's responsibility to have this coursework evaluated. An official courseby-course evaluation with a cumulative grade point average must be completed.

# ENGLISH PROFICIENCY

(414) 289-3400 · ece.org

Proof of English proficiency, if applicable, is required of applicants. The following standardized tests currently satisfy NSU COP English requirements for nonnative English speakers:

- 1. Test of English as a Foreign Language (TOEFL)\* toefl.org—minimum score of 213 on the computer-based or 80 on the Internet-based test
- 2. International English Language Testing System (IELTS)\* *ielts.org*—minimum score of 6.0 on the test module

Candidates who have taken college courses in the United States may also prove English proficiency by completing, with a minimum GPA of 2.0 on a 4.0 scale, two college-level English composition courses at a regionally accredited college or university in the U.S.

\*TOEFL and IELTS scores may be no more than two years old at the time of the interview

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

Transcripts can be sent electronically from the originating college/university to electronictranscripts@nova.edu.

A personal interview is part of the admissions process; however, being interviewed is not a guarantee of admission.

Completed applications are reviewed to determine if the applicant will be granted an interview. The Office of Admissions will notify selected applicants. Not all applicants will receive an interview.

# NONDEGREE-SEEKING STUDENTS

The college accepts nondegree-seeking students for travel study, study abroad, and some specific coursework. Contact *phss@nova.edu* for more information on these programs.

# PHARM.D. TRANSFER STUDENTS

Candidates in good academic standing from their college/university of record may apply for consideration as transfer students by

- 1. submitting a completed electronic application with a nonrefundable application fee of \$50 (U.S.) by June 15
- meeting all entry-level or advanced standing admissions requirements for the NSU College of Pharmacy, as applicable
- 3. submitting the following documentation:
  - a. official transcripts for all college coursework\*
  - b. a written statement outlining the reasons for requesting the transfer
  - c. three letters of recommendation (two from pharmacy faculty members and one from the dean, associate dean, or assistant dean of the transferring college of pharmacy indicating that the student is in good standing within the current or most recent academic program)
- 4. completing an interview
- 5. submitting any official standardized test scores—such as PCAT, GRE, TOEFL, or IELTS—to help further the evaluation of applications (recommended)

Due to the design of the Pharm.D. curriculum, a transfer student may be required to enter as a first-year student.

\* For information on foreign coursework, see page 44.

Transfer credit will only be considered for courses

- designated with a graduate-level course number
- passed with a grade of B or better
- from a regionally accredited graduate institution

Credit already used toward an earned degree will not be transferred. Requests for transfer credit must be submitted in writing to the associate dean or director of the relevant program prior to August 1 of the year of matriculation.

Pharm.D. students must complete a minimum of 30 credit hours of didactic coursework and all Advanced Pharmacy Practice Experiences (APPE) at NSU. Transfer credits may not exceed 2/3 of the required credits to complete the degree program. M.S. and Ph.D. students may request to transfer a maximum of 6 credits from a regionally accredited graduate institution.

For more information, see the NSU COP Student Handbook, posted online at pharmacy.nova.edu.

# **EXPENSES AND FINANCIAL AID**

Students should anticipate spending approximately \$2,000 a year for books, electronic devices (e.g., iPads), equipment, and supplies, and \$25,000 for living expenses in South Florida annually.

The primary financial responsibility for a student's education rests with the student and his or her family, but economic circumstances may make it necessary for the student to obtain assistance from other sources.

The Office of Student Financial Assistance helps as many qualified students as possible. Loans, scholarships, and grants are available. Approximately 90 percent of College of Pharmacy students receive some form of financial assistance. These financial assistance programs are described on our website at *nova.edu/financialaid*. For information, contact

Nova Southeastern University Office of Student Financial Assistance 3301 College Avenue Fort Lauderdale, Florida 33314-7796

(954) 262-3380 or 800-806-3680

A limited number of student employment positions are available. However, due to the intensity of all academic programs, employment during the semester is strongly discouraged.

# **TUITION AND FEES**

## TUITION

Tuition for all programs will be posted online at *pharmacy.nova.edu*. All tuition and fees are subject to change by the board of trustees without notice.

Only Florida residents in the entry-level program may qualify for in-state tuition. Information on applying for Florida residency status is available online at *nova.edu/cwis /hpdasa/florida-in-state-tuition.html*. Residency status will be determined at matriculation and will remain the same throughout enrollment at NSU. No tuition amounts will be adjusted as a result of a change in residency.

## FEES AND DEPOSIT—ALL PROGRAMS

Acceptance and Preregistration Deposit—\$1,000. Due within three weeks of an applicant's acceptance, it is required to reserve the accepted applicant's place in the entering first-year class. This deposit will be deducted from the tuition payment due on registration day, but is nonrefundable in the event of a withdrawal.

Health Professions Division General Access Fee-\$145. This fee is required annually.

NSU Student Services Fee-\$1,500. This fee is required annually.

Registration Fee—\$30. This fee is required each semester.

**Late Payment Fee—\$100.** All tuition and fees not paid within 30 days after the start of the semester will incur a late payment fee.

**College of Pharmacy Fees**—Additional fees for immunization training, pharmacy testing, and other college-approved activities. These fees are estimated at \$1,000 over the course of the program.

The first semester's tuition and fees, less the \$1,000 deposit, are due prior to the start of the semester. Tuition and fees for each subsequent semester are due on or before the start of each semester. The financial ability of applicants to complete their training is important because of the limited number of students accepted in each class. Plans for financing education



should include tuition, fees, iPads, computer-related expenses, health insurance, books, printing, required equipment, and living and miscellaneous expenses.

## OFFICE OF INTERNATIONAL STUDENTS AND SCHOLARS

It is the responsibility of the international applicant to contact the Office of International Students and Scholars (OISS) for information on immigration regulations and student visa requirements. For more information, visit *nova.edu/internationalaffairs/students/*.

## STUDENT HEALTH INSURANCE

All students are required to maintain adequate health insurance. NSU will automatically enroll you in the Nova Southeastern University Student Medical Insurance Plan and charge your student account. If you are insured under another insurance plan, you will be required to complete an online waiver form.

For more information, visit the insurance website at nova.edu/bursar/health-insurance.

## PROFESSIONAL INSURANCE

All registered NSU COP students are covered under university liability insurance while on official university experiences and activities.

## CORE PERFORMANCE STANDARDS

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. For more information, see Core Performance Standards for Admissions and Progress in the student handbook, posted online at *pharmacy.nova.edu*.

## PHARMACY INTERN LICENSE

A pharmacy intern license is a requirement for all Pharm.D. students and for placement on pharmacy practice experiences. All students must have a valid Social Security number to apply for, and receive, a pharmacy intern license in the Pharm.D. program. Without an intern license, a student cannot complete the curricular requirements.

It is the responsibility of all accepted international students to ensure that their visa status allows for the issuance of a Social Security number.

International students in the Ph.D. program who are paid teaching assistants will also need to verify that their visa status allows for the issuance of a Social Security number for employment with the university.

## TRANSPORTATION

Pharm.D. students are responsible for having reliable transportation (e.g., a personal vehicle) to attend IPPE and APPE sites that may not be close to campus or be accessible by reliable public transportation.

## STUDENT HOUSING

Numerous apartments, condominiums, and other rental facilities are located near the NSU campuses. Information concerning housing may be obtained at *nova.edu/housing* or by contacting the campuses listed below directly.

## Fort Lauderdale/Davie Campus

3200 South University Drive Fort Lauderdale, Florida 33328-2018

Phone: (954) 262-1300 Fax: (954) 262-2278 Toll Free: 800-356-0026, ext., 1200 Email: *phss@nova.edu* 

REGIONAL CAMPUSES nova.edu/campuses

#### Palm Beach Campus

11501 North Military Trail Palm Beach Gardens, Florida 33410-6507

Phone: (561) 805-2260 Fax: (561) 805-2266 Email: *pbphss@nova.edu*  **Puerto Rico Regional Campus** 997 San Roberto Street San Juan, Puerto Rico 00926

Phone: (787) 773-6583 Fax: (787) 773-6595 Email: *prphss@nova.edu* 

**Miami Campus** 8585 SW 124th Avenue Miami, Florida 33183-4600

Phone: (954) 262-1300 Fax: (954) 262-2278 Email: *phss@nova.edu* 



# MESSAGE FROM THE HPD CHANCELLOR



NSU's Health Professions Division (HPD) is playing a pivotal role in leading the university to new levels of excellence. The division comprises eight distinctive colleges—osteopathic medicine, pharmacy,

optometry, medical sciences, dental medicine, health care sciences, nursing, and allopathic medicine—that offer more than 60 degree and certificate programs.

We have seen the university reach many milestones recently. In September 2017, NSU received the largest philanthropic gift in its history from physicians Dr. Kiran C. Patel, M.D., and his wife, Dr. Pallavi Patel, M.D., which included a \$50-million gift and an additional \$150-million real estate and facility investment in Clearwater, Florida.

Then, in January 2018, the Patels provided additional gifts totaling close to \$30 million, while a substantial contribution from longtime donors Ron and Kathy Assaf led to the college of nursing being named in their honor. The altruistic trend continued in February 2018, when an important gift from Martin and Gail Press resulted in the naming of the HPD Library.

In October 2017, our allopathic medicine (M.D.) college received preliminary accreditation. As a result, the college gained approval to begin interviewing and accepting its inaugural class of 50 students in August 2018. Finally, construction commenced on the HCA East Florida hospital that will be located adjacent to the HPD complex on NSU's Fort Lauderdale/Davie Campus.

These exciting developments will ensure that our students receive a well-rounded education at an academic institution that prides itself on being dynamic, innovative, and interprofessional in its academic approach.

luck Of

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

# HEALTH PROFESSIONS DIVISION FAST FACTS



NSU's Health Professions Division (HPD), with a student body of more than 8,000, is home to eight colleges. Located on the Fort Lauderdale/Davie Campus, it occupies a \$70-million complex, covering 21 acres. HPD includes eight buildings totaling more than 900,000 square feet of space for classrooms, laboratories, offices, the Martin and Gail Press Health Professions Division Library, an outpatient health center, and a pharmaceutical care center. Several of the HPD programs are also located at our regional campuses, extending our programs and resources to various communities. They offer you the ability to complete a degree at a location that may be more convenient to your home.



## HEALTH PROFESSION DIVISION COMPLEX AND CENTER FOR COLLABORATIVE RESEARCH (see next page for location on campus)



#### **1 TERRY ADMINISTRATION BUILDING**

#### **First Floor**

- Admissions
- Student Financial Aid
- One-Stop Shop
- HPD Cafeteria

#### Second Floor

- Dr. Pallavi Patel College of Health Care Sciences
- Audiology Department
- Health Sciences Department
- Occupational Therapy Department
- Physical Therapy Department
- Physician Assistant Department

#### Third Floor

- College of Medical Sciences
- College of Pharmacy

#### **Fourth Floor**

- Dr. Kiran C. Patel College of Osteopathic Medicine
- College of Optometry

#### **Fifth Floor**

- HPD Administration
- Dr. Kiran C. Patel College of Allopathic Medicine
- Public Health Program
- Ron and Kathy Assaf College
   of Nursing
- Area Health Education Center

#### **2 ASSEMBLY BUILDING**

- Finkelstein Auditorium (125 seats)
- Jonas Auditorium (125 seats)
- Melnick Auditorium (125 seats)
- Resnick Auditorium (125 seats)
- Terry Auditorium (125 seats)
- Auditoria A, B, and C (125 seats each)
- Robert A. Steele Auditorium (500 seats)
- Hull Auditorium (250 seats)
- Seminar Rooms

## **3 LIBRARY/LABORATORY BUILDING**

#### First Floor

- ACORN SEED
- Medication Therapy Management

- "Harvey" Cardiac Patient
   Simulation Room
- Martin and Gail Press Health
   Professions Division Library
- Student Computer Laboratory
- Patient Simulation Center

#### Second Floor

- Occupational Therapy Laboratories
- Optometry Laboratories
- Physical Therapy Laboratory
- Student Lounge
- FOMA Osteopathic Manipulative Medicine Laboratory

#### **Third Floor**

- Basic Science Laboratories
- Gross Anatomy Laboratories
- Microscopy Laboratory
- Research Laboratories
- Moran Pharmacy Practice Laboratory
- Pharmacokinetics Laboratory
- Pharmaceutics Laboratory

#### 4 PHARMACY AND PHARMACEUTICAL CARE CENTER

## 5 SANFORD L. ZIFF HEALTH CARE CENTER

- First Floor
- Audiology
- Family Medicine
- Geriatric Medicine
- Internal Medicine
- Pediatrics
- Pediatric Physical Therapy
- Student Medical Center

#### Second Floor

- Optometry Clinics
- Optometry Dispensary

#### **Third Floor**

- Business Offices
- Employee Wellness Center
- OB-GYN
- Osteopathic Medicine
   Treatment Center

#### **6 DENTAL MEDICINE BUILDING**

#### **First Floor**

- Dental Urgent Care Clinic
- Radiology Clinic
- Student Dental Clinic
- Clinic Support Laboratory
- Predoctoral and Postgrad. Oral Surgery

#### Second Floor

- Faculty Practice
- Simulation Lab



- Postgraduate Endodontics
- Postgraduate Orthodontics
- Postgraduate Periodontics
- Postgraduate Prosthodontics

#### Third Floor

Postgraduate Operative Dentistry Clinic

**NSU FORT LAUDERDALE/DAVIE CAMPUS** 

Research Laboratories

- Seminar Rooms
- Central Sterilization Area
- Administrative Offices
- Faculty Offices
- Student Dental Supply Depot

#### 7 PARKING GARAGE

#### 8 HPD ASSEMBLY BUILDING

- Auditorium
- Computer Science Laboratory
- Research Laboratories
- Seminar Rooms
- Physical Assessment Laboratory
- Compliance Office

#### 9 CENTER FOR COLLABORATIVE RESEARCH

# Image: state state

| A.D. Griffin Sports Complex with           |      |
|--|------|
| Lighted Softball Fields                    | 10   |
| Administrative Services Center             | 11   |
| Alvin Sherman Library, Research,           |      |
| and Information Technology Center          | 12   |
| Athletics Fields                           | 13   |
| Campus Support Center                      | 14   |
| Carl DeSantis Building                     | 15   |
| Center for Collaborative Research          | 16   |
| Cultural Living Center.                    | 17   |
| Don Taft University Center                 | 18   |
| Farquhar Residence Hall                    | 19   |
| Founders Residence Hall                    | . 20 |
| Health Professions Division Complex        | 21   |
| Health Professions Division Parking Garage | . 22 |
| Horvitz Administration Building            | . 23 |
| Jim & Jan Moran Family Center Village      | . 24 |
| Leo Goodwin Sr. Building                   | . 25 |
|  |      |

| Leo Goodwin Sr. Residence Hall            | 26 |
|---|----|
| Library and Main Student Parking Garage . | 27 |
| Mailman-Hollywood Building                | 28 |
| Maltz Building                            | 29 |
| Miami Dolphins Training Facility          | 30 |
| NSU University School Lower School        | 31 |
| NSU University School Middle School       |    |
| (Dauer Building)                          | 32 |
| NSU University School Upper               |    |
| (Sonken Building)                         | 33 |
| Parker Building                           | 34 |
| Rosenthal Student Center                  | 35 |
| Shark Athletics Building                  | 36 |
| Student Affairs Building                  | 37 |
| The Commons Residence Hall                | 38 |
| University Park Plaza                     | 39 |
| Vettel Residence Hall                     | 40 |
| West Parking Garage                       | 41 |



## GET THE NSU EDGE.

NSU trains health practitioners in an interprofessional setting, with an emphasis on medically underserved areas. Because of this, our students go on to excel as highly qualified physicians and health care professionals who

- earrow understand how the medical disciplines can and must work together
- share a vision to transform the future of health care and provide easier access to high-quality services for patients
- experience life-changing service working domestically and internationally
  with people in need
- graduate with exposure to diverse cultures and the unique concerns that each present
- carry with them an unparalleled, real-world education that serves to enrich us all

With value-based education, accelerated tracks to graduation, access to a vast network of industry partners, and a chance to explore personal passions, near and far, our graduates will always have an edge.

Global service is a passion we love and look forward to every year.

-Kelly Graham, NSU class of 2019





# NSU'S HEALTH PROFESSIONS DIVISION

#### Dr. Kiran C. Patel College of Osteopathic Medicine

- Doctor of Osteopathic Medicine (D.O.)
- Master of Public Health (M.P.H.)
- Master of Science in Biomedical Informatics (M.S.)
- Master of Science in Disaster and Emergency Management (M.S.)
- Master of Science in Medical Education (M.S.)
- Master of Science in Nutrition (M.S.)
- Bachelor of Science in Human Nutrition (B.S.)
- Bachelor of Science in Public Health (B.S.)
- Graduate Certificate in Emergency Medicine
- Graduate Certificate in Functional Nutrition and Herbal Therapy
- Graduate Certificate in Health Education
- Graduate Certificate in Medical Informatics
- Graduate Certificate in Public Health
- Graduate Certificate in Public Health Informatics
- Graduate Certificate in Social Medicine

#### **College of Pharmacy**

- Master of Science in Pharmaceutical Affairs (M.S.)
- Master of Science in Pharmaceutical Sciences (M.S.)
- \* Concentration in Drug Development (Pharmaceutics)
- \* Concentration in Molecular Medicine and Pharmacogenomics
- \* Concentration in Social and Administrative Pharmacy
- Doctor of Pharmacy (Pharm.D.)
- Doctor of Philosophy in Pharmaceutical Sciences (Ph.D.)
  - \* Concentration in Drug Development (Pharmaceutics)
  - \* Concentration in Molecular Medicine and Pharmacogenomics
  - \* Concentration in Social and Administrative Pharmacy

#### College of Optometry

- Doctor of Optometry (O.D.)
- Master of Science in Clinical Vision Research (M.S.)
- Graduate Certificate in Clinical Vision Research

#### Dr. Pallavi Patel College of Health Care Sciences

- Bachelor of Science—Cardiovascular Sonography (B.S.)
- Bachelor of Science in Exercise and Sport Science (B.S.)
- Bachelor of Health Science (B.H.Sc.)
- Bachelor of Science-Medical Sonography (B.S.)
- Bachelor of Science in Respiratory Therapy (B.S.)
- Bachelor of Science in Speech-Language and Communication Disorders (B.S.)
- Master of Science in Anesthesia (M.S.)
- Master of Science in Athletic Training (M.S.A.T.)
- Master of Health Science (M.H.Sc.)
- Master of Occupational Therapy (M.O.T.)
- Master of Medical Science in Physician Assistant (M.M.S.)
- Master of Science in Speech-Language Pathology (M.S.)
- Doctor of Audiology (Au.D.)

# **DEGREE PROGRAMS**

- Doctor of Health Science (D.H.Sc.)
- Doctor of Philosophy in Health Science (Ph.D.)
- Entry-Level Doctor of Occupational Therapy (O.T.D.)
- Doctor of Occupational Therapy (Dr.O.T.)
- Doctor of Philosophy in Occupational Therapy (Ph.D.)
- Doctor of Physical Therapy (D.P.T.)
- Doctor of Philosophy in Physical Therapy (Ph.D.)
- Doctor of Speech-Language Pathology (SLP.D.)
- Certificate in Audiologist Assistant
- Graduate Certificate in Clinical Research Associate
- Graduate Certificate in Clinical Trial Manager

## **College of Medical Sciences**

• Master of Biomedical Sciences (M.B.S.)

#### **College of Dental Medicine**

- Doctor of Dental Medicine (D.M.D.)
- Master of Science in Dentistry (M.S.)
- Postgraduate Certificate in Advanced Education in General Dentistry
- Postgraduate Certificate in Endodontics
- Postgraduate Certificate in Operative Dentistry
- Postgraduate Certificate in Oral and Maxillofacial Surgery
- Postgraduate Certificate in Orthodontics
- Postgraduate Certificate in Pediatric Dentistry
- Postgraduate Certificate in Periodontics
- Postgraduate Certificate in Prosthodontics
- Postgraduate Certificate in Special Needs Dentistry
- Craniofacial Research Fellowship Program

#### Ron and Kathy Assaf College of Nursing

- Bachelor of Science in Nursing (B.S.N.)
- Master of Science in Nursing (M.S.N.)
  - \* Nonclinical Concentrations
    - Executive Nurse Leadership
    - Nursing Education
    - Nursing Informatics
  - \* Clinical Concentrations (Advanced Practice Registered Nurse)
    - Adult-Gerontology Acute Care Nurse Practitioner
    - Family Nurse Practitioner
    - Psychiatric-Mental Health Nurse Practitioner
- Postgraduate Certificates
  - \* Adult-Gerontology Acute Care Nurse Practitioner
  - \* Family Nurse Practitioner
- \* Psychiatric-Mental Health Nurse Practitioner
- Doctor of Nursing Practice (D.N.P.)
- Doctor of Philosophy in Nursing (Ph.D.)

## Dr. Kiran C. Patel College of Allopathic Medicine

• Doctor of Medicine (M.D.)



# NSU'S HEALTH PROFESSIONS DIVISION DEGREE PROGRAMS

## **Dual Degrees**

- Bachelor of Science—Cardiovascular Sonography (B.S.) and Master of Health Science (M.H.Sc.)
- Bachelor of Science—Medical Sonography (B.S.) and Master of Health Science (M.H.Sc.)
- Master of Health Science (M.H.Sc.)/Doctor of Health Science (D.H.Sc.)
- Bachelor of Science in Public Health (B.S.)/Doctor of Osteopathic Medicine (D.O.)
- Doctor of Osteopathic Medicine (D.O.)/Doctor of Dental Medicine (D.M.D.)

## **Concurrent Degrees**

- Doctor of Osteopathic Medicine (D.O.)/ Master of Science in Medical Education (M.S.)
- Doctor of Osteopathic Medicine (D.O.)/Master of Public Health (M.P.H.)
- Doctor of Osteopathic Medicine (D.O.)/ Master of Science in Biomedical Informatics (M.S.)
- Doctor of Osteopathic Medicine (D.O.)/Master of Science in Disaster and Emergency Management (M.S.)
- Doctor of Osteopathic Medicine (D.O.)/Master of Science in Nutrition (M.S.)
- Doctor of Pharmacy (Pharm.D.)/Master of Business Administration (M.B.A.)
- Doctor of Pharmacy (Pharm.D.)/Master of Public Health (M.P.H.)
- Doctor of Pharmacy (Pharm.D.)/Master of Science in Biomedical Informatics (M.S.)
- Doctor of Optometry (O.D.)/Master of Public Health (M.P.H.)
- Doctor of Audiology (Au.D.)/Master of Business Administration (M.B.A.)
- Master of Medical Science (M.M.S.)/Master of Public Health (M.P.H.)
- Doctor of Dental Medicine (D.M.D.)/Master of Public Health (M.P.H.)
- Doctor of Dental Medicine (D.M.D.)/Master of Business Administration (M.B.A.)



## NOTEWORTHY RECOGNITIONS



- NSU moved up from last year to rank 191 among national universities in U.S. News & World Report's
   2019 list of top 200 "Best Colleges." The rankings are based on several measures of quality, including graduation and retention rates, assessment of excellence, and student selectivity.
- U.S. News & World Report ranked three of NSU's online programs among the best in the nation.



SNEWS

2018 84

- Online Colleges ranked NSU's online programs 3rd in Florida and 12th overall in the United States for online educational opportunities.
- NSU ranked 8th in the nation for overall opportunities for military service members, 10th in the nation for doctoral degrees, and 11th in the nation for bachelor's and master's degrees and credit for military training. More than 2,500 accredited colleges and universities were ranked on a variety of factors, including affordability, student services, and the availability of online programs.
- U.S. News & World Report's list of the top 100 graduate schools in the country includes three NSU HPD programs: physician assistant (#40); occupational therapy (#44), and pharmacy (#77).



 Diverse: Issues in Higher Education listed NSU 5th among U.S. colleges and universities for the overall number of minority graduate degree recipients.
 The 2015–2016 data published by Diverse is collected by the Integrated Postsecondary Education Data System (IPEDS).

# RECOGNITIONS



Nova Southeastern University—synonymous with dynamic innovation and intellectual challenge—is the second largest, private, nonprofit university in the Southeast. Situated on a beautiful, 314-acre campus in Fort Lauderdale, Florida, the university is experiencing a sustained period of academic growth, fiscal strength, and commitment to the challenges of the 21st century. In this environment of expansion and stability, the university is capitalizing on its strengths in such areas as academic innovation, comprehensive clinical training, and flexible educational delivery systems.

The university awards certificates and bachelor's, master's, educational specialist, and doctoral degrees, all in a wide range of fields, including the health professions, law, business, marine sciences, psychology, social sciences, computer and information sciences, and education.

For more information, please visit nova.edu.

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 on the direction of the board of trustees. Updated information can be found on our website (pharmacy.nova.edu).



## PHARMACY PROGRAMS

Office of Admissions (954) 262-1101 877-640-0218

3200 South University Drive Fort Lauderdale, Florida 33328-2018 Doctor of Pharmacy (Pharm.D.) Master of Science (M.S.) in Pharmaceutical Affairs

Master of Science (M.S.) in Pharmaceutical Sciences

Doctor of Philosophy (Ph.D.) in Pharmaceutical Sciences