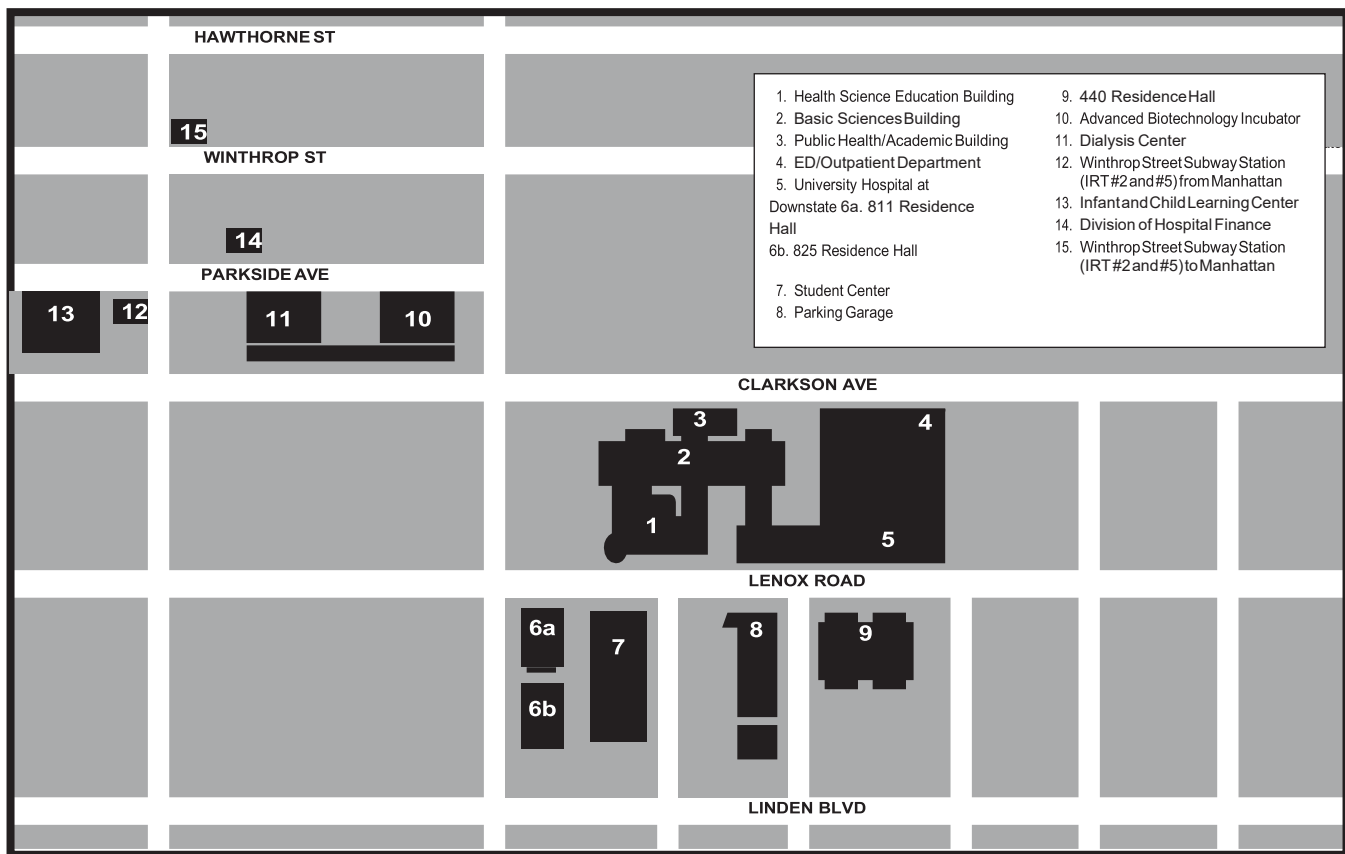


School of Health Professions  
BULLETIN 2021-2023



DOWNSTATE  
HEALTH SCIENCES UNIVERSITY



## Transportation

The SUNY Downstate Office of Student Admissions is located at 450 Clarkson Avenue, just off New York Avenue (Building 2).

## BY AUTOMOBILE

### From Manhattan:

**Manhattan Bridge:** exit onto Flatbush Avenue. Continue approximately three and one-half miles to Parkside Avenue. Turn left onto Parkside Avenue and travel four blocks to New York Avenue. Turn right at New York Avenue and continue one block to Clarkson Avenue.

**Brooklyn Bridge:** stay to the left at the end of the bridge, following the ramp to Boerum Place, which becomes Adams Street. Continue along Adams Street to Atlantic Avenue. Turn left onto Atlantic Avenue and continue to Flatbush Avenue. Turn right onto Flatbush Avenue and continue approximately two and one-half miles to Parkside Avenue. Turn left onto Parkside Avenue and travel four blocks to New York Avenue. Turn right at New York Avenue and continue one block to Clarkson Avenue.

**Brooklyn-Battery Tunnel (toll):** exit onto the Brooklyn-Queens Expressway. Continue approximately one mile, staying to the left, and exit onto Prospect Expressway. Travel three exits to the Fort Hamilton Parkway exit. Continue through two traffic lights to Caton Avenue. Turn left onto Caton Avenue, and continue sixteen blocks to Flatbush Avenue. Turn left onto Flatbush Avenue and continue two blocks to Parkside Avenue. Turn right onto Parkside Avenue and travel four blocks to New York Avenue. Turn right at New York Avenue and continue one block to Clarkson Avenue.

### From Staten Island and Newark International Airport:

**Verrazano Narrows Bridge (toll):** follow the bridge to Route 278, the Gowanus Expressway. Travel approximately five miles to the Prospect Expressway exit. Continue on the Prospect Expressway three exits to the Fort Hamilton Parkway exit. Travel along East 5 Street through two traffic lights to Caton Avenue. Turn left onto Caton Avenue, and continue sixteen blocks to Flatbush Avenue. Turn left onto Flatbush and continue two blocks to Parkside Avenue. Turn right onto Parkside Avenue and travel four blocks to New York Avenue. Turn right at New York Avenue and continue one block to Clarkson Avenue.

### From Long Island and Airports:

**Southern Long Island and JFK:** West on Belt Parkway to North Conduit Boulevard exit (Exit 17W). Continue on North Conduit Boulevard for about 3/4 mile. Fork left onto Linden Boulevard, and take Linden Boulevard to New York Avenue. Right two blocks on New York Avenue to Clarkson Avenue.

**Northern Long Island and LaGuardia:** Take Grand Central Parkway to Jackie Robinson Pkwy (formerly Interboro Pkwy). Continue to Pennsylvania Avenue exit. Follow Pennsylvania to Linden Boulevard, turn right onto Linden. Take Linden Boulevard to New York Avenue. Right two blocks on New York Avenue to Clarkson Avenue.

## PARKING

Valet Parking is available for a nominal fee Mondays through Fridays from 6:00 a.m. to 6:00 p.m., located in front of the 445 Lenox Road hospital entrance at the valet parking booth. This service is not available on weekends or holidays). When the valet parking service is not available, a limited number of spaces for visitors are available at a nominal cost at the Center's Parking Garage on East 34th Street, between Linden Boulevard and Lenox Road. There are also several private parking lots in the area.

### **Long Island Railroad**

Take any train to the Jamaica station. Change to Brooklyn-bound train (track 3). Take to the Flatbush Avenue terminal. Follow subway directions from there.

### **Metro-North Railroad**

Take any train to Grand Central Terminal. Change to Brooklyn-bound 4 or 5 trains. Follow subway directions from there.

### **BY SUBWAY**

*During rush hour*, take the IRT Flatbush Avenue Line (#2 Seventh Avenue or #5 Lexington Avenue) trains to the Winthrop Street station. [Take any IRT Brooklyn-bound train (#2, 3, 4, or 5) to Nevins Street in Brooklyn, changing there for a #2 or #5 marked “Flatbush Avenue.” Note that the #5 runs only during rush hours.] Exit at Nostrand and Parkside avenues. Cross Nostrand Avenue and walk one block on Parkside Avenue until it ends at New York Avenue. Turn right onto New York Avenue. Cross New York Avenue and walk east on Clarkson Avenue until the entrance at 450 Clarkson Avenue. The Admissions Office is located at 450 Clarkson Avenue.

*Nights and outside of rush hours*, take the subway to Church Street. Walk three short blocks east on Church Avenue to New York Avenue, left three blocks to Clarkson Avenue, right to 450 Clarkson Avenue. Or transfer to an eastbound B-35 bus to the northbound B-44 at Church and New York avenues. **(Downstate students and employees can call 718-270-2626 to arrange for transportation from Church Avenue.)**

### **BY BUS**

The B-12 and northbound B-44 buses stop at the corner of Clarkson and New York Avenues. The following lines connect with the B-12 along Clarkson Avenue: B-41, B-44, B-46, and B-49.

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Facilities for Instruction  
Student Life  
University Services  
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    Chaplain Services  
    Children's Center  
    Food Services  
    Faculty Student Association  
    Office of Diversity  
    Parking  
    University Police  
    Office of the Registrar  
    Residential Life  
    Office of Student Affairs

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# Administration

The State University of New York  
SUNY Board of Trustees  
SUNY Downstate Campus Council  
SUNY Downstate Administration

## STATE UNIVERSITY OF NEW YORK

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*Lists as of January 18, 2022*

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## SCHOOL OF HEALTH PROFESSIONS

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*Dean*

## SCHOOL OF PUBLIC HEALTH

Kitaw Demissie, M.D., Ph.D.  
*Dean*

# SUNY Downstate Health Sciences University

## EDUCATIONAL FOCUS STATEMENT

SUNY Downstate's Colleges of Nursing and Medicine and Schools of Graduate Studies, Health Professions, and Public Health offer students a broad professional education that prepares them for practice or careers in any location and community. This education provides exceptional opportunities for those students with a commitment to promoting health in urban communities and addressing the complex challenges of investigating and preventing diseases that confront clinicians, educators, and researchers in such an environment.

This special aspect of Downstate's unique mission is reflected in the students it attracts and selects, the vast majority of whom are drawn from the New York City metropolitan area. Many of these students are members of minority and cultural groups underrepresented in the health professions, and/or come from families of first-generation immigrants or from economically disadvantaged backgrounds.

The differences in the background and outlook that students bring with them can enhance the quality of the educational experience of all students at SUNY Downstate. The belief that diversity adds an essential ingredient to the educational process is one of Downstate's primary tenets. Many factors, such as race, ethnic or cultural background, academic achievement, geographic location, diversity of experiences, leadership roles, and socioeconomic background, are taken into consideration in the admissions process. A diverse healthcare workforce will be better equipped to provide culturally competent care to an increasingly diverse population.

SUNY Downstate Health Sciences University is one of four academic health centers within the 64-unit State University of New York. Located on an urban campus in the East Flatbush section of Brooklyn, SUNY Downstate includes the Colleges of Medicine and Nursing, and the Schools of Graduate Studies, Health Professions, and Public Health, as well as Downstate University Hospital.

Downstate is a major provider of medical education, health care, and research. Advanced Certificates, BS, MS, MPH, MD, DNP, DPT, DrPH and PhD degrees are granted.

The oldest and largest component of the campus is the College of Medicine, founded in 1860 as the Long Island College Hospital, this country's first teaching hospital and the prototype for all subsequent medical centers.

In 1931, the school was rechartered as the Long Island College of Medicine, with affiliated hospitals throughout Brooklyn. The 'Downstate' era began on October 5, 1950, when a merger contract was signed with the newly constituted State University of New York. The College of Nursing, School of Graduate Studies and School of Health Professions were founded in 1966 in recognition of the critical need for multidisciplinary healthcare professionals.

Today, SUNY Downstate is the focal point of a health education network that encompasses a broad network of hospitals, clinics, and community centers. In 1998, one of its researchers, Dr. Robert F. Furchgott, received the Nobel Prize in Medicine.

## SUNY DOWNSTATE MISSION, VISION, AND VALUES STATEMENT

### MISSION:

- To provide outstanding education of physicians, scientists, nurses, and other healthcare professionals.
- To advance knowledge through cutting-edge research and translate it into practice.
- To care for and improve the lives of our globally diverse communities.
- To foster an environment that embraces cultural diversity.

### VISION:

SUNY Downstate will be nationally recognized for improving people's lives by providing an excellent education for healthcare professionals, advancing research in biomedical science, health care and public health, and delivering the highest quality, patient-centered care.

### VALUES:

**PRIDE** — To take satisfaction in the work we do every day, and to value our collective contributions to the Downstate community.

**Professionalism** — We commit to the highest standards of ethical behavior and exemplary performance in education, research, and patient care.

**Respect** — We value the contributions, ideas, and opinions of our students, coworkers, colleagues, patients, and partnering organizations.

**Innovation** — We research and develop new and creative approaches and services for the anticipated changes in healthcare.

**Diversity** — We embrace our rich diversity and commit to an inclusive and nurturing environment.

**Excellence** — We commit to providing the highest quality of education and service to our students, patients, and community by holding ourselves, our coworkers, and our leaders to high standards of performance.



# The Founding of SUNY Downstate

## SUNY Downstate Health Sciences

University had its beginnings as a small charitable medical service set up in 1856 by a group of German physicians. This free dispensary, organized to treat indigent German-Americans living in Brooklyn, was staffed by five physicians. The original intention was to build a large hospital to care for the German population of Brooklyn. But changing population trends, which brought a largely Irish patient load to the dispensary, necessitated a revision of this plan.

In 1857, physicians from the German General Dispensary, then located on Court Street, resolved to organize a charitable institution in the City of Brooklyn, to be called St. John's Hospital. From November 7 until December 23 of that year, the dispensary was called The St. John's Hospital; on December 23, the name of the hospital was changed to The Long Island Hospital and Medical College. It was on this date that a medical college with a hospital was first projected.

Dr. Louis Bauer and Dr. John Bryne, the prime movers in the establishment of the medical college, were trained in Europe, where it was customary for medical schools to be associated with hospitals. The two physicians naturally wanted to adopt this system to prepare the future physicians of Brooklyn. A bill to incorporate the Long Island College Hospital of the City of Brooklyn was introduced in the State Legislature on January 20, 1858, and passed on March 6. The hospital's charter empowered 25 regents to operate a hospital and to confer degrees on candidates 21 years of age or older, who had passed three years of preceptorship under a practicing physician and completed two courses of lectures at the hospital.

Almost immediately after the charter was signed, the Perry Mansion, located in Brooklyn Heights, was purchased to house the new medical complex. The official inauguration of the Long Island College Hospital took place on June 3. Financial difficulties beset the new institution almost immediately, slowing down efforts to open the medical school. The hospital itself was forced to close in late September 1859. Meanwhile, several outstanding physicians were secured to fill the professorships at the college, and on March 29, 1860, the institution reopened, following financial arrangements underwriting the expense of the collegiate department and settling various liens.

The following day, the instruction of students began. The first teaching faculty was a distinguished one. Most eminent of all was Dr. Austin Flint, Sr., professor of practical medicine and pathology, who had been a professor of medicine at Rush Medical College in Chicago.

A medical student's training in 1860 consisted of his three-year preceptorship under the direction of a practicing physician and attendance at two courses of lectures of at least sixteen weeks each. The lectures that were given one year were repeated the next, sometimes verbatim, so many students took their first course of lectures at one school and their second at another. The first class had 57 students, as well as a number of graduates of other institutions. The first commencement took place July 24, 1860, with 21 students graduating.

In 1861, in anticipation of the medical needs of the Civil War, the curriculum included a one-month course on military surgery, dissection, and clinical instruction on the wards. By 1869, major changes were introduced into the teaching curriculum. Daily class examinations were instituted to ensure more exact knowledge, especially in the demonstrative and elementary branches. Another change, made in 1872, was the establishment of a reading and recitation term that began early in October and extended to the beginning of the regular term in March. This term included dissection and clinical instruction as well as reading and quizzes.

By 1879, the faculty of the Long Island College Hospital concluded that the system of teaching medicine in the United States was radically wrong. They debated the possibility of instituting a compulsory, full-graded, three-year course of instruction, but abandoned the idea because of their fears that such a plan would result in the loss of many students when the college was entirely dependent for its existence on students' fees. Certain changes were made, however, to improve the curriculum. The regular term was lengthened from sixteen weeks to five months, but the four-month reading and recitation term remained optional. Thus, a total of eighteen months' instruction was available to any student electing two regular and two reading and recitation terms.

Between 1888 and 1897, the Long Island College Hospital grew rapidly. The Hoagland Laboratory building, built primarily for research in bacteriology, was constructed. At its opening, it was considered one of the best-equipped buildings for research and medical training in the country. In December 1897, the Polhemus Memorial Clinic Building was completed. The new building, eight stories high, was erected on the southwest corner

of Henry and Amity streets.

By this time, New York State law required that a student take three courses of lectures in three different years.

The system of having a regular term of five months and an optional reading term was retained. The entering class of 1897-1898 began the first four-year graded course of instruction. The reading term was abolished, and the school year lasted seven months. In 1897, the student fees were raised to \$185 and \$190. In the period from 1889 to 1909, the average number of students in the school was 310, and the average number in the graduating class was 62.

During the years immediately before and after World War I, many additional changes occurred at Long Island College Hospital. Admission was opened to women; postgraduate teaching was instituted; a new wing increased the number of beds to 500; and affiliations were established with other Brooklyn hospitals.

In 1930, the college and hospital were separated from one another so that each would be under its own governing board. The college was conducting much of its clinical teaching in other hospitals throughout the borough, and it seemed preferable that it not be governed by the board of only one hospital. The college became the Long Island College of Medicine.

Other changes occurring during the 1930s included the construction of the Polak Memorial Laboratory, housing laboratories in bacteriology, histology, physiology, pathology, gynecology, and surgery. In 1935, 500 beds at Kings County Hospital were set aside in a college division for the clinical instruction of students.

In the 1940s, full-time chiefs were appointed in all the clinical departments, training in psychiatry was offered within a separate department, and Maimonides Hospital and the Veterans Administration Hospital in Fort Hamilton became affiliates, along with a number of other local hospitals. In 1946, the third-year curriculum was changed so that nearly two-thirds of the work consisted of clinical clerkships.

In 1945, the college purchased a six- and-a-half-acre tract of land that eventually became the site of Downstate Health Sciences University. After approval by a faculty committee and the board of trustees of the Long Island College of Medicine, the board of managers of the Alumni Association, the trustees of the State University of New York, and the State Board of Regents, the State Legislature in 1950 passed a bill legalizing the merger of the Long Island College of Medicine and the State University to form Downstate Health Sciences University.

The establishment in 1966 of the School of Graduate Studies, the School of Health Professions, and the College of Nursing; the construction of the Basic Sciences Building in 1956; student residence halls in 1965; State University Hospital in 1966; the Student Center in 1967; the nurses'

residence in 1968; and the Health Science Education Building in 1992 completed the transition of the medical school as it is now known from its early days as the German General Dispensary on Court Street.

*Excerpted with permission from the New York State Journal of Medicine, July 1976. It was reprinted in Alumni Today, Spring 1996, with the permission of the Medical Society of the State of New York.*



The year 2010 marked the 150th anniversary of SUNY Downstate Health Sciences University's emergence as a leader in American medical education. Since 1860, when the first class graduated from what was then the Long Island College Hospital Collegiate Division, both Downstate and the practice of medicine and healthcare have changed dramatically.

Today, SUNY Downstate is a major medical university with five professional schools, a teaching hospital, and a center for biotechnology development that is the first of its kind in Brooklyn. We are proud of our history of achievement and look forward to an even brighter future. In 2016, the School of Health Professions, the College of Nursing, the School of Graduate Studies, and Downstate University Hospital will celebrate the 50th anniversary of their founding.



# Mission and Educational Environment

The School of Health Professions (SOHP), established in 1966, serves as an engine of educational opportunity for diverse students from Brooklyn, New York City, and the tri-state area, providing education in Diagnostic Medical Imaging (BS), Medical Informatics (MS), Midwifery (MS and Advanced Certificate), Occupational Therapy (MS), Physical Therapy (BS/DPT), and Physician Assistant (MS and post-professional MS). Students who hold an RN also have the option to obtain an advanced certificate and degrees with a specialization in Midwifery.

Each undergraduate educational program requires that students complete at least two years of undergraduate course work prior to enrollment in SOHP.

## MISSION

The mission of the School of Health Professions is to educate health professionals in the delivery of excellent healthcare service by developing their scientific competence and fostering their humane spirit. The School seeks to accomplish this by providing a challenging and supportive atmosphere for learning that offers opportunities for structured experiences as well as independent inquiry. Faculty contribute to knowledge in allied health through advancements in clinical practice, scholarly activities, and basic and applied research.

Collaboration is emphasized among students, faculty, clinicians, and professionals in health care and related disciplines. Students are prepared for professional leadership roles through course work and professional and campus activities. The School fosters ongoing professional growth by sponsoring continuing education opportunities in several disciplines. The School strives to serve the urban community in which it is located by providing health services and education to the population.

## EDUCATIONAL ENVIRONMENT

The School's highly qualified and dedicated faculty is committed to helping students realize their highest potential. It provides students with personal attention and guidance as they acquire the principles of their profession and develop proficiency in its essential skills. Themselves committed to scholarship, research, and ongoing professional education, faculty members serve as excellent role models for students.

As part of a large, academic health science center, students in the School of Health Professions have the opportunity to exchange ideas with professionals in every area of health care through participation in interprofessional conferences, seminars, and presentations. They have the use of one of the most prestigious medical libraries in the country and enjoy the benefits of close ties among each of the professional colleges, the research center, and the Downstate University Hospital. Students are encouraged to become active and lifelong participants in the SUNY Downstate community.

The School, which has graduated more than 5,000 health professionals to date, has a nationwide reputation for its education of first-rate healthcare professionals. Many of the School's graduates hold academic appointments and department directorships in their specialties throughout the United States. Some are employed in key positions at the hospitals affiliated with SUNY Downstate and make ongoing contributions as teachers of their alma mater's current students. The high regard in which graduates of the School of Health Professions are held is evidenced by the strong recruiting efforts made by the many healthcare organizations that seek to employ them.

# Student Admissions

Requirements for admission and prerequisites for each educational program can be found within this section. Since admissions requirements, procedures, and policies are subject to change, it is important to check for any new requirements and application materials at:

<https://www.downstate.edu/education-training/student-services/admissions/>

## OPEN HOUSE AND CAMPUS INFORMATION SESSIONS

Each Spring and Fall, the School of Health Professions sponsors an Open House for prospective applicants. During the Open House, participants obtain general information about each professional program of study offered in the college as well as general information about the campus and student services. The Open House is designed to help potential applicants learn more about the campus and the health professions programs offered.

The School also offers frequent, small-group Information Sessions, designed to provide the following services: (1) specific information about the educational programs offered; (2) an opportunity to meet the faculty; and (3) advisement about prerequisites course requirements and admissions criteria.

Students who wish to receive course advisement at the Information Sessions are encouraged to bring unofficial copies of their college transcripts and the program advisement worksheet for their program of interest. Program advisement worksheets can be downloaded from <https://www.downstate.edu/education-training/student-services/admissions/info-sessions.html>.

To register for an Information Session, students may submit the required information online at: <https://www.downstate.edu/education-training/student-services/admissions/info-sessions.html> or send an e-mail message to [admissions@downstate.edu](mailto:admissions@downstate.edu). Potential applicants must include their name, the name of the program of interest, and the date of the Information Session they plan to attend.

## ADMISSIONS CRITERIA

Listed below are the specific admissions criteria for each SOHP program.

### PROGRAMS:

**Note:** Admissions requirements are subject to change. Refer to the website for the most current information:

<https://www.downstate.edu/education-training/student-services/admissions/>

## DIAGNOSTIC MEDICAL IMAGING

1. A minimum of 60 semester credits from a college or university institutionally accredited and **recognized by the Council of Higher Education Accreditation (CHEA)** such as: the Middle States Association of Colleges and Schools, the New England Association of Schools and Colleges, the Higher Learning Commission, the Northwest Commission on Colleges and Universities, the Southern Association of Colleges and Schools, and the Western Association of Schools and Colleges. If you have any questions about whether a transfer course will be accepted, you should check with the Office of Admissions prior to enrolling in the course.
2. A minimum undergraduate cumulative Grade Point Average (GPA) of 3.0 on a 4.0 scale
3. You must submit two letters of recommendation. SUNY Downstate Health Sciences University has moved toward exclusive use of electronic recommendation submissions. Your recommenders must be a professional colleague who can comment on your potential for success in this program, **or** a current/former college/university professor **or** an employer/supervisor. Please visit the [Application Instructions](#) to learn more about the letter of recommendation requirements.

A **minimum** of 20 hours of patient related clinical healthcare experience **in a medical setting is required**. This may be paid or volunteer work hours, but must involve patient contact. In addition, **this experience must have been completed within the last five (5) years and placed on official letter head and signed by the supervisor in the medical setting where you volunteered**.

4. The DMI program accepts online courses for prerequisites, but prefer a college laboratory setting (wet lab) for science courses that require labs. All physical science courses **must be designated for science majors**.
5. A minimum grade of “C” or better in the following prerequisite courses:

SUBJECT	CREDITS
Anatomy & Physiology 1 w/lab and Anatomy & Physiology 2 w/lab*	8
General Chemistry 1 w/lab*	4
General Physics 1 w/lab*	4
Mathematics (not Remedial Math/Statistics)	3
Psychology	3
English	6

- \* All science courses must have labs
- \*\* Anatomy & Physiology 1 and 2 with lab and General Physics 1 with lab *must be less than 6 years old* for all applicants; **we will no longer consider any required sciences that are greater than 6 years old**.

### Note:

-Applicants may use Statistics to fulfill the Math requirement.

-If accepted, CPR certification is required by August 15 of your planned year of matriculation. The DMI Program accepts the following course: **American Heart Association: BLS for Healthcare Providers (CPR and AED)**. Must be valid for 2 years. (Heartsaver will NOT be accepted). Online CPR certifications will **not** be accepted.

## MEDICAL INFORMATICS

1. A baccalaureate degree in any discipline from a college or university institutionally accredited and **recognized by the Council of Higher Education Accreditation (CHEA)** such as: the Middle States Association of Colleges and Schools, the New England Association of Schools and Colleges, the Higher Learning Commission, the Northwest Commission on Colleges and Universities, the Southern Association of Colleges and Schools, and the Western Association of Schools and Colleges. If you have any questions about whether a transfer course will be accepted, you should check with the Office of Admissions prior to enrolling in the course.
2. You must submit **two** letters of recommendation. SUNY Downstate Health Sciences University has moved toward exclusive use of electronic recommendation submissions. Your recommenders must be a professional colleague who can comment on your potential for success in this program, **or** a Current/former College/University Professor or an employer/supervisor. Please visit the [application instructions](#) to learn more about the letter of recommendation requirements.
3. A minimum, cumulative undergraduate Grade Point Average (GPA) of 3.0
4. Basic Computer Programming and Statistics courses are highly recommended but *not* required for admissions

## MIDWIFERY PROGRAM

The Midwifery Program offers a Master's of Science (MS) in Midwifery or an Advanced Certificate for those with a related graduate degree, as well as an MS for those who are midwives.

### Advanced Certificate, Midwifery

A master's degree in a related field (as determined by the Midwifery faculty) from a college or university institutional accreditor recognized **by the Council of Higher**

**Education Accreditation (CHEA)** such as the Middle States Commission on Higher Education, the New England Association of Schools and Colleges, the Higher Learning Commission, the Northwest Commission on Colleges and Universities, the Southern Association of Colleges and Schools, and the Western Association of Schools and Colleges. If you have any questions about whether a transfer course will be accepted, you should check with the Office of Admissions prior to enrolling in the course.

1.A minimum cumulative Grade Point Average (GPA) of 3.0 on a 4.0 scale.

2.Two letters of recommendation from a midwife, nurse, or physician colleague who can comment on your clinical abilities; or 2) a college professor who taught you; or 3) a person who knows you in a professional capacity.

3. A grade of “C” or better in the following prerequisite courses: (NOTE: RNs are exempt from prerequisite courses):

SUBJECT	CREDITS
Anatomy & Physiology w/labs	2 semesters
General Biology or Genetics	1 course
Microbiology	1 course
General Chemistry	1 course
Pathophysiology	1 course
Nutrition	1 course
Sociology or Cultural	
Anthropology	1 course
General Psychology	1 course
Life Span*/Developmental	
Psychology	1 course
Statistics	1 course
*More than one course may be required to fulfill this requirement.	

#### Master of Science, Midwifery

1.A baccalaureate degree in any discipline from a college or university institutionally accredited and recognized by the institutional accreditor recognized **by the Council of Higher Education Accreditation (CHEA)** such as: the Middle States Commission on Higher Education, the New England Association of Schools and Colleges, the Higher Learning Commission, the Northwest Commission on Colleges and Universities, the Southern Association of Colleges and Schools, and the Western Association of Schools and Colleges. If you have any questions about whether a transfer course will be accepted, you should check with the Office of Admissions prior to enrolling in the course.

2.A minimum cumulative Grade Point Average (GPA) of 3.0 on a 4.0 scale.

3.A grade of “C” or better in the following prerequisite courses: (NOTE: RNs are exempt from prerequisite courses).

SUBJECT	CREDITS
Anatomy & Physiology w/labs	2 semesters
General Biology	1 course
Microbiology	1 course

General Chemistry	1 course
Pathophysiology	1 course
Nutrition	1 course
Sociology or Cultural	
Anthropology	1 course
General Psychology	1 course
Life Span* or Developmental	
Psychology	1 course
Statistics	1 course

\*More than one course may be required to fulfill this requirement.

#### OPTION FOR MIDWIVES

##### Master of Science Completion, Midwifery

1.A baccalaureate degree in any discipline from a college or university institutionally accredited and recognized **by the Council of Higher Education Accreditation (CHEA)** such as: the Middle States Commission on Higher Education, the New England Association of Schools and Colleges, the Higher Learning Commission, the Northwest Commission on Colleges and Universities, the Southern Association of Colleges and Schools, and the Western Association of Schools and Colleges. If you have any questions about whether a transfer course will be accepted, you should check with the Office of Admissions prior to enrolling in the course.

2. Graduate of an accredited Midwifery Program (certification as a CNM or CM).

3.A minimum cumulative Grade Point Average (GPA) of 3.0 on a 4.0 scale.

#### OCCUPATIONAL THERAPY

1.A baccalaureate degree in any discipline from a college or university institutionally accredited and **recognized by the Council of Higher Education Accreditation (CHEA)** such as: the Middle States Association of Colleges and Schools, the New England Association of Schools and Colleges, the Higher Learning Commission, the Northwest Commission on Colleges and Universities, the Southern Association of Colleges and Schools, and the Western Association of Schools and Colleges. If you have any questions about whether a transfer course will be accepted, you should check with the Office of Admissions prior to enrolling in the course.

2.You must submit two letters of recommendation. SUNY Downstate Health Sciences University has moved toward exclusive use of electronic recommendation submissions. Letters should be written by a current/former College Science Professor or an employer/supervisor, or another college professor. Please visit the [application instructions](#) to learn more about the letter of recommendations requirement.

-Interviewed candidates will take a proctored form of the Health Sciences Reasoning Test (HSRT) at SUNY Downstate Health Sciences University as a part of their admissions criteria to the Occupational Therapy MS Program. Further Information on the assessment can be

found through the following web link:

<https://www.insightassessment.com/products/products-summary/critical-thinking-skills-tests/health-sciences-reasoning-test-hsrt>

3. A minimum letter grade of “C” or better in the following prerequisite courses:

SUBJECT	CREDITS
Anatomy & Physiology 1 w/lab &	
Anatomy & Physiology 2 w/lab	8
General Biology 1 w/lab	4
General Chemistry 1 w/ lab or	
Physiological Psychology or	
Behavioral Neuroscience	3-4
Statistics	3
Sociology or Anthropology	3
General Psychology	3
Abnormal Psychology	3
Developmental/Life Span Psychology (from Birth to Aging) *OR Child Psychology and Adult Development OR Child Psychology and Psychology of Aging	3-6

\* More than one course may be required to fulfill this requirement.

\* More than one course may be required to fulfill this requirement. Course must cover from birth to aging.

4.Admissions preference will be given to applicants who have volunteer experience in a clinical setting related to Occupational Therapy. **No specific number of hours is mandatory, but knowledge of the profession is required.**

5.Admissions preference will be given to applicants who have engaged in interactive classroom and extracurricular activities during their undergraduate college experience. **Applicants who have not been able to gain volunteering/shadowing experiences or have a limited number of volunteering/shadowing hours due to the COVID-19 pandemic & safety regulations can supplement their experiences by taking the optional online volunteering experience modules by the Occupational Therapy Program at SUNY Downstate through the URL: [Blackboard](#)**

**Note:** The Occupational Therapy program accepts online courses for prerequisites, but prefer a college laboratory setting (wet lab) for science courses that require labs.

#### PHYSICAL THERAPY

1.A minimum of 80 semester credits from a college or university institutionally accredited and **recognized by the Council of Higher Education Accreditation (CHEA)** such as: the Middle States



Association of Colleges and Schools, the New England Association of Schools and Colleges, the Higher Learning Commission, the Northwest Commission on Colleges and Universities, the Southern Association of Colleges and Schools, and the Western Association of Schools and Colleges. If you have any questions about whether a transfer course will be accepted, you should check with the Office of Admissions prior to enrolling in the course.

2. Two Letters of recommendation: one from a college science professor and one from a physical therapist.

3. At least 9 semester credits must be completed at a 4-year college at the Junior or Senior level.\*\*\*

4. A minimum, cumulative undergraduate Grade Point Average (GPA) of 3.0 on a 4.0 scale

5. Graduate Records Examination (General G.R.E.) score report — **Use Institutional Code 3138**

6. A minimum of 50 hours of **clinical** experience in a Physical Therapy setting.

7. Online courses are accepted for prerequisites, but we prefer a college laboratory setting (wet lab) for science courses that require labs.

8. A letter grade of "C" or better in each of the following prerequisite courses:

SUBJECT	CREDITS
Anatomy & Physiology 1 w/labs or	
Anatomy & Physiology 2 w/labs*	4
Anatomy & Physiology 2 w/labs**or	
General Biology 1 w/labs or	
General Biology 2 w/labs	4
General Chemistry 1 w/labs and	
General Chemistry 2 w/ labs	8
General Physics 1 w/labs and	
General Physics 2 w/labs	8
General Psychology	3
Psychology Elective	3
Statistics	3
English	3
Three (3), Upper Division	
(junior/senior) courses***	9

\* You must complete at least 1 semester of Anatomy & Physiology with lab

\*\* The same Anatomy & Physiology with lab course can only be counted once, either above or here

\*\*\* These courses must all be from the **same area of study or the same discipline**; e.g. Nine upper-division credits from the Biology department, or the History department.

**Note:** Minimum grade of "B" *preferred* in all science prerequisite courses. Only science courses designed for science majors are acceptable. All required sciences must be less than 10 years old for all applicants; we will no longer consider any required sciences that are greater than 10 years old.

## PHYSICIAN ASSISTANT (MS)

1. A baccalaureate degree in any discipline from a college or university institutionally accredited and **recognized by the Council of Higher Education Accreditation (CHEA)** such as: the Middle States Association of Colleges and Schools, the New England Association of Schools and Colleges, the Higher Learning Commission, the Northwest Commission on Colleges and Universities, the Southern Association of Colleges and Schools, and the Western Association of Schools and Colleges. If you have any questions about whether a transfer course will be accepted, you should check with the Office of Admissions prior to enrolling in the course.

2. A **minimum**, cumulative undergraduate Grade Point Average (GPA) of **3.0** on a 4.0 scale

3. You must submit **three (3)** letters of recommendation. SUNY Downstate Health Sciences University has moved toward exclusive use of electronic recommendation submissions. Letters should be written by: a current/former College Science Professor and the other from a clinician (Physician Assistant, MD, Nurse practitioner, or other Health Care Professionals e.g. Physician Assistant, Physical Therapist, and Occupational Therapist). Please visit the [application instructions](#) to learn more about the letters of recommendation requirement.

4. A **minimum of 500 hours of health-related experience** (Health care experience should be obtained in the United States over a period of time in a hospital or clinical setting in which you interact with patients, physicians or other health care professionals such as: nurse, nurse's aide, corpsman, medical laboratory technologist, respiratory therapist, emergency medical technician, counselor). Volunteer direct patient care experiences and shadowing may also be used towards meeting this requirement. Activities completed in a hospital setting such as candy strippers or any other such experiences **cannot** be applied towards meeting the requirement for the minimum health-related experience. As part of the letters of recommendation, applicants should include a letter from their site supervisor describing their responsibilities, length of the activity, hours devoted to the activity and how they function in their role (The hours must be completed within **(5) years** of your date of matriculation into the program).

5. A **minimum of 250 hours of non-clinical volunteer work (Community Service)** Non-clinical community activities should not be completed in a clinical setting nor should it involve interaction with patients, physicians or any members of the health care profession regardless of the duties performed. Community services

should be completed over a period of time. Our definition of non-clinical community service is an altruistic activity that is not paid or remunerated in a tangible way, such as: working in a soup kitchen, working in a homeless shelter, tutoring disadvantaged children, etc. The activity must be deemed socially responsible towards meeting human needs. As part of the letters of recommendation, applicants should include a letter from their site supervisor describing their leadership skills, responsibilities, length of the activity, hours devoted to the activity and how they function in their role (The hours must be completed with **five (5) years** of your date of matriculation into the program).

**Note:** The SUNY Downstate Health Sciences University PA program reserves the right to reject experiences deemed to be of little value towards fulfilling this requirement, regardless of where such experiences are completed. Below is a very partial list of organizations that provides the opportunity for meaningful volunteer/community service:

[New York Cares](#)  
[VolunteerNYC.org](#)  
[NYC.gov - Volunteer Opportunities](#)  
[Volunteer Match](#)

6. Online courses **will not be** accepted towards the fulfillment of the core prerequisite science courses.

7. A grade of "**C+**" is the acceptable **minimum** in the following prerequisite courses. Competitive applicants are those who have earned a "**B+**" or higher grades in the prerequisite science courses with labs.

SUBJECT	CREDITS
Anatomy & Physiology 1 w/labs	
and Anatomy & Physiology 2 w/labs	8
General Biology 1 w/labs and	
General Biology 2 with labs	8
General Chemistry 1 w/labs &	
General Chemistry 2 w/labs	8
Microbiology (not Bacteriology) w/ labs	3
Mathematics (not Statistics)	3
General Psychology	3
Abnormal Psychology/Life Span	
Psychology*	3
English	6
Humanities or Social Science courses**	6
One upper-division science course***	3-4

Please note: A minimum grade of "B" is preferred in all science prerequisite courses. Only science courses designed for science majors are acceptable. All required sciences must be less than 10 years old for all applicants.

\* You must complete at least 1 semester of Anatomy & Physiology

\*\* The same Anatomy & Physiology course can only be counted once, either above or here

\*\*\* These courses must all be from the same area of study or the same discipline (e.g., nine

upper-division credits in biology or history).

Competitive applicants have completed more than two of the following recommended courses:

- Organic Chemistry
- Genetics
- Biochemistry
- Embryology
- Histology
- Pathophysiology
- Pharmacology
- Other upper-division biology courses at the 300–400 level
- Statistics

\* More than one course may be required to fulfill the Life Span Psychology pre-requisite requirement. Course must cover from birth to aging.

\*\* Preferably writing intensive courses.

Applicants may be required to submit a course description.

\*\*\* Upper division science courses are generally physical/life science courses numbered 300 level or higher. They require prerequisite course work or are designated as such by the institution. They are generally completed at 4 year colleges/universities (at the junior or senior year level). Applicants will need to consult with the Registrar's Office at their home school to be sure the course is at an upper division level. Upper division science courses completed at community colleges will be accepted. However, applicants may be required to submit proof of the upper-division status of the course.

#### Recommended Additional Courses:

Organic Chemistry  
Genetics  
Biochemistry  
Embryology  
Histology  
Pathophysiology  
Pharmacology  
Or other upper-division biology courses at the 300—400 level  
Statistics

**Competitive applicants have completed more than four (4) of the above recommended courses.**

**PLEASE NOTE: All prerequisite science courses** should have been completed within the **past eight (8) years** of the date expected entry into the program. Any exceptions will be reviewed on a case-by-case basis by the faculty of the Physician Assistant Program.

*The Program awards interview preference as related to the memorandum of understanding (MOU) for undergraduate and post-baccalaureate students of Temple University, if selection factors and the program's mission are met.*

*An invitation to interview at SUNY Downstate Health Sciences University Physician Assistant program does not guarantee admission.*

#### PHYSICIAN ASSISTANT (Post Professional MS)

1. Baccalaureate degree in PA education from an ARC-PA accredited PA program or institution.
2. Applicants may be required to hold or be eligible to obtain a license to practice as a Physician Assistant or eligibility for such licensure
3. Two letters of recommendations are required. The letters must be from the following:
  - A director of the Physician Assistant program from where you graduated; or a professional colleague
  - A current supervising physician
4. A minimum cumulative undergraduate GPA of 2.5 from an accredited PA Program
5. Successful completion of the following two courses:
  - Research Methods (any course in Research methodology will be reviewed for acceptance)
  - Health Care Delivery (any course in Health Care Delivery will be reviewed for acceptance)
6. Applicants must maintain active clinical practice experience
7. A copy of your current resume/CV

**Note:** A personal interview with the Admissions Committee may also be required.

#### ADMISSIONS PROCEDURES

SUNY Downstate Health Sciences University utilizes a central application system (AMP). We strongly recommend that you read the application instructions for your program of interest prior to starting the application process. Applications must be submitted electronically through our central application system and are transmitted through a secured server; all materials are kept confidential.

All applicants must submit a completed online application and upload the required program-specific supporting documents on or before the program's published deadline in order to receive full consideration. Once you have submitted your online application with the required supporting documents, you may monitor the status of your application using the application checklist located in the AMP application portal. Applicants are reminded to adhere to the admission deadlines.

Application questions may be forwarded by e-mail to: [admissions@downstate.edu](mailto:admissions@downstate.edu). Specific questions regarding admissions requirements or course equivalencies may be sent to the program office. Since the admission process relies on e-mail

as the primary mode of communication with applicants, it is essential for all applicants to provide a valid e-mail account in the online application portal as well as timely updates as necessary.

#### GENERAL ADMISSIONS POLICIES AND INFORMATION

The Admissions Committee considers the individual qualifications of each applicant. Decisions regarding admission are based on a number of factors, including, but not limited to, the following:

- prior academic performance;
  - completion of prerequisite courses and the grades received in those courses;
  - results of standardized tests, when required;
  - letters of recommendation, communication skills, and motivation to pursue the profession; and
  - volunteer or observational experience in the career field.
- Entrance requirements vary by individual program.
- Competitive applicants have completed all prerequisite courses at the time of application. All prerequisites must be completed with a grade of "C" or better (a grade of "C minus" is not acceptable). In some programs, higher grades may be required to be competitive for admission.
- Prerequisite science courses taken more than 10 years ago may be accepted at the discretion of the Admissions Committee.
- Once completed applications are reviewed, the Admissions Committee will notify applicants by letter, email, or telephone about a personal interview.

Please do not telephone the Student Admissions Office to inquire about your status, as this will only delay processing. The following programs require a personal interview as part of the application process:

- Diagnostic Medical Imaging
- Medical Informatics
- Midwifery
- Occupational Therapy
- Physician Assistant
- Physical Therapy

We recommend that you have volunteer or observational experience in a setting appropriate to your career choice, preferably before you apply. In some programs, direct patient care or specific healthcare experience is required for admission.

Educational programs at SUNY Downstate Health Sciences University are open to all qualified prospective students regardless of race, religion, sex, color, creed, age, national origin, disability, sexual orientation, marital status, or status as a disabled veteran or veteran of the Vietnam era. Admissions preference is given to New York State residents.

Unofficial transcripts from all U.S. colleges or universities you have attended must be uploaded in the online application portal regardless of how long ago you attended and whether or not courses from those

colleges/universities are being used for prerequisite courses.

Please indicate in the prerequisite tab in online application portal any courses in progress, or the processing of your application will be delayed.

We only accept credits from a college or university institutionally accredited and **recognized by the Council of Higher Education Accreditation (CHEA)** such as: the Middle States Association of Colleges and Schools, the New England Association of Schools and Colleges, the Higher Learning Commission, the Northwest Commission on Colleges and Universities, the Southern Association of Colleges and Schools, and the Western Association of Schools and College

## STUDIES COMPLETED OUTSIDE OF THE UNITED STATES

Applicants who have completed all or part of their post-secondary, college/ university education in a country other than the United States are required to have a course-by-course, detailed educational credential evaluation. The evaluation must be completed by a member of the National Association of Credential Evaluation Services (NACES). For a list of approved evaluation agencies, please review the NACES website at <https://www.naces.org>.

If your courses taken outside the U.S. have already been evaluated by an accredited U.S. college or university, and the courses is listed by subject tile on the college transcript individually with credit hours and grades, you may submit the transcript without a separate credential evaluation. However, if you are using any of the credits toward prerequisite courses for admission, you must still submit a complete course-by-course evaluation from a NACES member agency, even if the courses are listed on a transcript from a U.S. college or university.

## CREDIT BY EXAMINATION

If you have fulfilled admissions requirements through the College-Level Examination Program (CLEP), Excelsior College examinations, or DANTES, you must upload an unofficial pdf of your score report under the “Document Upload” section of the application portal, located in the left menu bar. Only if admitted, will you be required to request a copy of your official score report from the testing agency to be sent directly by mail or email to the Office of Student Admissions: SUNY Downstate Health Sciences University, 450 Clarkson Avenue, MSC 60, Brooklyn, New York 11203 Email: [admissions@downstate.edu](mailto:admissions@downstate.edu) *unless these credits already appear on the official transcripts of an accredited U.S. college or university.*

The College Board (CLEP)  
phone: (609) 771-7865 web:  
[www.collegeboard.com/clep](http://www.collegeboard.com/clep)

DANTES Subject Standardized Tests  
phone: (877) 471-9860  
web: [www.getcollegecredit.com](http://www.getcollegecredit.com)

Excelsior College phone: (888) 647-2388  
web: [www.excelsior.edu/exams](http://www.excelsior.edu/exams)

**NOTE:** Applicants to programs in the School of Health Professions are limited to a maximum of 12 semester credit hours of non-science prerequisite coursework credit by exam. Credit by exam cannot be used for prerequisite courses that require a laboratory component.

## HEALTH-CARE EXPERIENCE

All applicants are urged to seek professional observational or volunteer experience in an appropriate setting prior to applying for admission. In most programs, it is assumed that you will have made at least one visit to a healthcare facility or other appropriate health-related organization and have familiarity with your chosen career field at the time of your application. Please review admissions requirements for specific healthcare experience as listed by each program.

## REQUIRED EXAMINATIONS

Graduate Record Examination (GRE) is only required for Physical Therapy applicants. For information about the exam, contact:

GRE-ETS  
Box 6000  
Princeton, NJ 08541

<https://www.ets.org/gre/>

(609) 771-7670 or (866) 473-4373

Use the SUNY Downstate Institutional Code: 3138

## English as a Second Language

Applicants who have not completed at least one year of full-time study in a college or university institutionally accredited and recognized by CHEA in the United States (at least 24 semester credits, including two courses in English† composition), must complete one of the following:

1. Test of English as a Foreign Language (TOEFL) is required for all applicants for whom English is a second language and who have not completed at least one year of full-time study in a regionally accredited college or university in the United States (at least 24 semesters credits, including two courses in English composition).

TOEFL Box 6151  
Princeton, NJ 08541  
(609) 771-7100  
<https://www.ets.org/toefl/>

2. The International English Language Testing System (IELTS) Minimum passing score of 6.5 is required. IELTS: [www.ieltsregistration.org](http://www.ieltsregistration.org)

Use the Downstate Institutional Code: 2534  
Please note: Your application is not considered complete without the required standardized test score(s).

## NOTIFICATION OF ADMISSION STATUS

Notification of admissions decisions is made in writing. We cannot communicate an admissions

decision over the telephone. Once you are sent notification that your application has been sent to the Admissions Committee, please be patient and wait for written notification of your admissions status.

Applicants to programs starting in June must submit their completed applications by mid-November to receive full consideration. Early applications are encouraged. Late applications will be reviewed on a space-available basis.

In general, programs with a June entry date will reach their final admissions decisions by mid-May, although admissions decisions may be reached earlier. Applicants to programs starting in the fall should submit their completed applications by March 1 to receive full consideration. Early application is encouraged. Late applications will be reviewed on a space-available basis.

In general, programs with a fall entry date reach their final admissions decisions by August 1, although admissions decisions may be reached earlier.

Applications are reviewed on a modified rolling admissions basis. For specific information regarding application processing fees and admissions deposits, go to:  
<https://www.downstate.edu/education-training/student-services/admissions/fees-deposits.html>

*Admissions decisions are final and may not be appealed.*

Applicants who are not accepted for admission may reapply with enhanced credentials. You may register online to attend an Information Session and receive re-applicant advisement.

## CERTIFICATION/LICENSURE DOCUMENTATION

### Midwifery:

*a. Registered nurse applicants:* RN license to practice as a professional nurse in any of the 50 states.  
*b. Master of Science Completion Program applicants:* by the American College of Nurse-Midwives (ACNM) Certification Council or its successor since 2008, the American Midwifery Certification Board (AMCB). You must submit photocopies of your certification and bachelor's degree (or its equivalent); **or** Evidence of alternative eligibility to practice (such as New York State licensure).

## PART-TIME STUDY

Part-time study is available in the following programs:

- Medical Informatics
- Occupational Therapy (after first semester)

## INTERNATIONAL APPLICANTS

Our entering classes are small and admissions priority is given to U.S. citizens and permanent residents, who are New York State residents. Applicants to highly competitive programs may have difficulty being accepted due to a large number of qualified applicants.

International students may apply but must document their ability to finance their education as part of the admissions process (see Department of



State requirements for an F-1 visa). Federal financial aid or private grants for international students are not available. All international applicants must document their ability to finance their entire education (total length of the program) as part of the admissions process. Student budgets are posted on the SUNY Downstate Financial Aid website. The costs of attendance will be based on a 12-month budget for an out-of-state student, including tuition, fees, educational, and living expenses.

## SECOND DEGREE APPLICANTS

If you already hold a bachelor's, master's, or doctoral degree, you must still fulfill the same admission requirements, including prerequisite courses, and follow the same procedures as other applicants.

## EDUCATIONAL OPPORTUNITY PROGRAM (EOP)

If you were previously admitted or enrolled in the SUNY EOP, CUNY SEEK or College Discovery program, or HEOP at an independent college or university in New York State, you may be eligible to continue in this program. Please complete your EOP verification form and upload it to your application. You may refer to the following link to retrieve the form:

<https://www.downstate.edu/education-training/student-services/financial-aid/documents/downstatetransfereop.pdf>

Complete the required form, which is independent of the application process (and does not have to be included in your self-administered application).

## TRANSFER CREDIT

There are two types of transfer credit:

1) transfer credit to meet admission requirements and 2) Program of Study transfer credit.

### 1) Transfer Credit to Meet Admission Requirements

Courses taken in the United States must be from a college or university institutionally accredited and **recognized by the Council of Higher Education Accreditation (CHEA)** such as: the Middle States Association of Colleges and Schools, the New England Association of Schools and Colleges, the Higher Learning Commission, the Northwest Commission on Colleges and Universities, the Southern Association of Colleges and Schools, and the Western Association of Schools and Colleges

Unofficial transcripts may be uploaded in the online application portal. If accepted all courses must be presented on original official transcripts from the educational institution where the courses were completed. For courses taken at institutions outside the United States, a course-by-course, the detailed educational credential evaluation must be submitted from a NACES-affiliated agency. may award graduate transfer credits for courses comparable to those offered by the college.

Certified nurse-midwives and certified midwives who

graduated from a midwifery program accredited by the Accreditation Commission for Midwifery Education (ACME) applying to a master's degree should meet all the admissions requirements for the master's degree program. The Midwifery program faculty will evaluate the number of transfer credits the applicant is eligible to receive. For more information on Program of Study transfer credit, please speak to a representative of the program to which you are seeking admission.

## 2) Program of Study Transfer Credit

This type of transfer credit is considered on an individual basis for select programs. (Note: The Occupational Therapy, Physical Therapy and Physician Assistant Programs do not grant Program of Study transfer credit.) The credits are applied to your program of study at SUNY Downstate.

Transfer credit may be offered whenever: 1) the nature, content, and level of the course are comparable to the course offered by SUNY Downstate; 2) the credit earned is appropriate and applicable to the programs offered by SUNY Downstate; and 3) a minimum letter grade of "C" or better has been earned in an undergraduate course; a grade of "B" or better is needed for a graduate course.

Students should initiate a request for Program of Study transfer credit through their faculty advisor/program office during the first semester after matriculation in their program.

Certified nurse-midwives and certified midwives who graduated from a midwifery program accredited by the Accreditation Commission for Midwifery Education (ACME) applying to a master's degree should meet all the admissions requirements for the master's degree program. The Midwifery program faculty will evaluate the number of transfer credits the applicant is eligible to receive.

For more information on Program of Study transfer credit, please speak to a representative of the program to which you are seeking admission.

## REAPPLICANTS to DEGREE PROGRAMS

Re-applicants within one year of the initial application must submit a new online application through our central application system (AMP), pay the application fee; submit one new letter of recommendation, and updated unofficial college transcripts. The Physician Assistant program requires two new letters of recommendation, applicants to all other programs are required to submit one new letter of recommendation. Re-applicants who applied more than one year ago must follow the same application instructions as first-time applicants. Applicants who are not accepted for admissions may reapply with enhanced credentials

## DEFERRALS

If you are accepted for admission and wish to request a deferral, you must submit a written request to the Admissions Office by fax or e-mail at

least two weeks prior to the registration date for your program. The letter must include the reason you are requesting a deferral, your name, and the name of your program. All requests for deferrals must be approved by the School's Admissions Committee. Approval will be sent to you in writing. In general, deferrals are only granted for one year.

The following programs offer deferral: Medical Informatics and Midwifery.

## ALTERNATE LIST

Students placed on the alternate list may be admitted, often within days of the start of the entering class. Alternates are strongly encouraged to submit all required pre-admission documents listed on the admissions checklist. Since alternates may be considered on a space-available basis, a final decision will be communicated by email.

## APPLICATION INSTRUCTIONS

Program specific application instructions may be found on the Student Admissions website at <https://www.downstate.edu/education-training/school-of-health-professions/admissions/index.html>. This is an online application, and you will be downloading transcripts and other information.

## Program E-Mail Addresses

Diagnostic Medical Imaging:  
[admissions@downstate.edu](mailto:admissions@downstate.edu)

Medical Informatics:  
[Informatics.SOHP@downstate.edu](mailto:Informatics.SOHP@downstate.edu)

Midwifery:  
[Midwifery.SOHP@downstate.edu](mailto:Midwifery.SOHP@downstate.edu)

Occupational Therapy:  
[OT.SOHP@downstate.edu](mailto:OT.SOHP@downstate.edu)

Physical Therapy:  
[admissions@downstate.edu](mailto:admissions@downstate.edu)

Physician Assistant:  
[PA.SOHP@downstate.edu](mailto:PA.SOHP@downstate.edu)

PLEASE NOTE: Admissions requirements, procedures, and policies are subject to change. Check the website for any new requirements and application materials



## APPLICATION DEADLINES AND TIMELINES

### **Programs starting in June**

The deadline for submitting a completed application for the Occupational Therapy, Physician Assistant, and Physical Therapy programs is mid-November. The specific deadline is posted on the [Student Admissions](#) page on the Downstate website. Early submission of the application is encouraged. Applications received after the deadline will be considered on a space-available basis. Prepare your application package in advance, and mail it to ensure receipt by the posted deadline.

If you are currently enrolled in college or taking prerequisite courses, download a photocopy of your fall semester course registration and most recent grade report (the one you receive in the mail or printout from your college's student information system) in your application. Also, download a printout or photocopy of your spring semester course registration. This information will give us the most up-to-date information about your academic background.

If you will be taking prerequisite courses for admission during the fall and spring semesters in the year of application, include a photocopy of your course registration confirmation form, if available. If it is not available, please forward

your spring registration and fall transcripts to the Office of Student Admissions by January 15th. This will give us the most up-to-date information about your academic background.

### **Programs starting in August**

The Diagnostic Medical Imaging, Medical Informatics, and Midwifery programs begin in August of the academic year.

Early March: Deadline for Diagnostic Medical Imaging  
Mid-April: Deadline for Medical Informatics

Mid-April: Deadline for Midwifery

Early submission of the application is highly recommended.

If you are currently enrolled in college or taking prerequisite courses, upload a photocopy of your fall semester course registration and most recent grade report (the one you receive in the mail or printout from your college's student information system) in your application portal. Also, upload a photocopy of your spring semester course registration. This information will give us the most up-to-date information.

# Academic Programs

- Diagnostic Medical Imaging  
Bachelor of Science
- Medical Informatics  
Master of Science
- Midwifery  
Master of Science and Advanced Certificate
- Occupational Therapy Program  
Master of Science
- Physical Therapy Program Combined Bachelor  
of Science/ Doctor of Physical Therapy
- Physician Assistant Program  
Master of Science and  
Post Professional Masters of Science

The School of Health Professions (SOHP) included in the SUNY Downstate Health Sciences University and offers courses of study in Diagnostic Medical Imaging leading to a bachelor of science degree. These programs are open to upper-division transfer students.

Master's degrees programs are available in Medical Informatics, Occupational Therapy, Physician Assistant and Midwifery and a combined BS/DPT degree program in Health Sciences/Physical Therapy.

SOHP also offers a master's degree and an advanced certificate in Midwifery to registered nurses as well as non-RNs. Nurses who have an RN and a bachelor's degree can obtain a master's degree with a specialization in Midwifery through the College of Nursing.

**ACCREDITATION**  
SUNY Downstate Health Sciences University is accredited by the Middle States Commission on Higher Education and includes the School of Health Professions. The academic programs of the School of Health Professions are also registered with the New York State Department of Education and accredited by their respective national professional organizations.

**STUDENT RETENTION**  
The College's student retention rate is excellent. Over 80 percent graduate within 150 percent of the normal program time.

## PROGRAMS AND HEGIS CODES

### Bachelor of Science Programs

Diagnostic Medical Imaging..... 1225

### Combined BS/DPT Program

BS Health Sciences..... 1201  
DPT Physical Therapy..... 1212

### Master of Science Programs

Medical Informatics ..... 1299  
Midwifery ..... 1203.10  
Occupational Therapy ..... 1208  
Physician Assistant ..... 1299.10

### Advanced Certificate Programs

Midwifery ..... 1203.10

## DIAGNOSTIC MEDICAL IMAGING

### Bachelor of Science

Chairperson and Associate Professor  
*Yosefa Pessin*

Medical Director  
*Harris L. Cohen*

Clinical Associate Professor &  
Clinical Coordinator  
*Rivka Hellmann*

Clinical Assistant Professors  
*Iryna Struk,*

Adjunct Faculty  
*Artur Babayan, Natalie Marks, Taneille Clouden, Rena Orman, Marie-Claire Roberts, Kiran Khan, Sabina Gitlis, Rhonda Osborne, Veneta Callpani, Lisa Furman, Jason Tang-Simmons, Jason Lazar*

Clinical Instructor  
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Diagnostic medical sonography is one of the fastest growing diagnostic fields. It is used in nearly every medical specialty and in every type of medical care setting. The technology uses a noninvasive, painless, and acceptably safe energy source—high-frequency sound—to obtain detailed and dynamic images of the organs within the body. Medical sonographers must have extensive knowledge of anatomy, pathophysiology, physics, and the medical and biological sciences.

The Diagnostic Medical (DMI) Program of SUNY Downstate was established in 1972 and was the first program of its kind in the United States to offer a Bachelor of Science degree with a major in sonography.

Accredited in Abdomen-Extended, Obstetrics & Gynecology, and Cardiac Concentrations, our curriculum integrates the basic and medical sciences with sonography courses and provides coursework and clinical training in all major disciplines and specialties of ultrasound (abdomen, obstetrics, and gynecology, cardiac, vascular). With this strength, our graduates are prepared to enter the workforce with multiple skill sets and are highly sought by clinical affiliates and other clinical institutions. Our state-of-the-art student laboratory incorporates technology, innovation, and the latest teaching techniques including simulation and hands-on activity. Our graduates are all registry-eligible and qualify to take the National ARDMS examinations, with very successful results.

### ACCREDITATION

The Diagnostic Medical Sonography Program is evaluated by the Joint Review Committee on Education in Diagnostic Medical Sonography and is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Graduates of the program are qualified to take the registry examinations given by the American Registry of Diagnostic Medical Sonographers.

### ADMISSION REQUIREMENTS

Please refer to pg. 10-16 of this Bulletin. Check for the latest requirements and apply online through the Admissions section of Downstate's website: <https://www.downstate.edu/education-training/school-of-health-professions/admissions/index.html>.

### GRADUATION HONORS

*Overall Excellence Award* – presented to a graduating student with a cumulative grade point average (GPA) of 3.3 or higher, who has consistently received good evaluations from clinical instructors and who contributes significantly to either the Diagnostic Medical Imaging program, student life, or the community.

*Academic Excellence Award* – presented to a graduate with a GPA of 3.5 or higher with a minimum of “good” evaluations for clinical performance. This award will be given to the individual with the highest GPA meeting these criteria.

*Outstanding Student Contribution Award* – presented to a graduating student for outstanding contributions to the program, the profession, and the SUNY Downstate community. The student must have a minimum GPA of 2.5.

*Certificate of Achievement Award* – presented to a graduating student who passed the American Registry of Diagnostic Medical Sonography while in the program.

*Research Award* – presented to a graduating student or group who has conducted the best research project.

*Deverel Paterson Memorial Award*: to a graduating student who exhibits the attributes of perseverance and success in the face of adversity and life's challenges.

*Lambda Nu National Honors Society for the Radiologic and Imaging Sciences*

Lambda Nu is the national honor society for the radiologic and imaging sciences. The Downstate Chapter, New York Pi, recognizes outstanding students, alumni, and faculty, with goals of fostering academic scholarship, promoting research, and recognizing exemplary scholarship, as well as developing highly-skilled, knowledgeable, and caring individuals that can provide quality patient care in the medical community.

Membership to Lambda Nu is by invitation from the local chapter in accordance with the chapter's By-laws. Eligibility must be verified. Membership criteria include; GPA 3.5 or higher on 4.0 scale after two full-time semesters (or equivalent) of a professional program, enrollment in a radiologic or imaging sciences program as a full-time student for at least two terms, evidence of professional commitment beyond minimum requirement of the program, including, but not limited to: GPA higher than Chapter minimum, actively pursuing an ultrasound research project, active membership in a professional or school organization, as evidenced by holding office or committee appointments, preparing for presentation a professional paper or poster, or representation of the profession at school events.

### CAREER OPPORTUNITIES

Students who graduate from the Diagnostic Medical Imaging program are qualified for careers as clinicians, educators, and administrators in private or academic practice. Most graduates find employment in hospitals and health-related settings. Others are educators and administrators in universities and colleges, while some work for equipment manufacturers as clinical education and or application specialists.

Because of the rapidly changing technological developments in sonography, job opportunities and new roles continue to emerge, offering graduates excellent opportunities for employment and career growth. According to the Bureau of Labor and Statistics employment for sonographers is expected to grow 17% by the year 2029.

### COURSE DESCRIPTIONS

The curriculum is reviewed periodically. Please consult the program webpage <http://www.downstate.edu/SOHP/dmi/curriculum.html>

### ANAT 3105

#### Human Anatomy for the Sonographer

Anatomy is the study of the structure and shape of the body, body parts, and their relationships to

each other. This course is designed to provide the sonography student with a systematic description of the anatomical structures, their functions and their topographical relationships while enabling them to accurately identify and differentiate normal versus abnormal tissue. The student will also learn to describe the gross anatomy of all organ systems with special emphasis on those systems relevant to the ultrasonic profession. *Lecture and presentations. 3 credits.*

#### **DIMI 3101 Sonography I (Abdomen/Ob-Gyn)**

This introductory course provides a comprehensive study of sonography of the abdomen and female pelvis (obstetrics and gynecology). The course includes sonographic terminology, indications for testing, sonographic techniques, and appearances. The student will also learn the criteria for developing diagnostic and interpretative skills based on sonographic findings. *Course co-requisites: DIMI 3110, DIMI 3235. Lecture. 3 credits.*

#### **DIMI 3102 Sonographic Physics I**

This course provides an overview of the basic concepts of ultrasound physics, including the theory of sound waves, ultrasonic energy, medium interaction, and echo production. Also included will be transducer construction, operation, Doppler principles, and color and spectral Doppler instrumentation. *Lecture. 3 credits.*

#### **DIMI 3106 Physiology for the Sonographer.**

This course provides an understanding of physiological mechanisms with a focus on the human body. Comprehensive knowledge of the functioning of cells, tissues, and organs is important when imaging the body with ultrasound, particularly when performing cardiovascular studies, understanding the biophysical profiling of the fetus, and in determining tissue characterization (bending vs. malignant). This course encompasses a comprehensive study of the functions and interrelationships of the nervous, endocrine, muscular, circulatory, respiratory, digestive, endocrine, and reproductive systems with an emphasis on the homeostatic nature of these systems and reference to human disease states. Special emphasis is placed on systems relevant to the sonography profession. *Lecture. 3 credits.*

**DIMI 3107  
Medical and Surgical Diseases of the Abdomen**  
This course covers the study of diseases affecting the abdominal organ systems. Pathophysiology is described as well as clinical symptoms, applicable diagnostic techniques, treatment procedures, and prognoses. This course provides the background for understanding manifestations of disease as seen on sonograms. *Lecture. 2 credits.*

#### **DIMI 3108 Scanning Skills Lab**

This course introduces sonography students to the basics of ultrasound scanning, including transducer orientation, machine knobology, and basic scanning techniques. Real-time scanning and simulation activities are utilized to enable the first-semester

student to develop the skills needed in the clinical setting. *Course co-requisites: DIMI 3101, DIMI 3110. 1 credit.*

#### **DIMI 3110 Clinical Internship I**

This course is an introductory clinical lab experience for abdominal, obstetrics, and gynecological ultrasound training. The student attends one day per week for 13 weeks acquiring basic skills in the area of specialization. Instructional settings and assignments include college lab (the first three weeks of the semester are spent in our DIMI Lab being introduced to ultrasound equipment and basic imaging technique), hospitals, and healthcare facilities or educational sites. The clinical project required. *Laboratory. Course co-requisite DIMI 3101. 2 credits.*

#### **DIMI 3200 Sonography II (Ob-Gyn and Abdomen)**

Advanced study in obstetric, gynecologic, and abdominal ultrasound with an emphasis on differential diagnoses, clinical correlation, and familiarization with state-of-the-art applications of sonography. Small parts ultrasound included as well as an introduction to pediatric screening. *Lecture. Prerequisites: DIMI 3101, ANAT 3105, DIMI 3102, DIMI 3106, DIMI 3110, DIMI 3235, and co-requisites DIMI 3210, DIMI 3202. 4 credits.*

#### **DIMI 3202 Sonographic Physics II**

This course provides for the advanced study in wave theory with special emphasis on spectral, power, and color Doppler as they pertain to all sonographic applications. Emphasis on quality assurance and quality control, as well as innovations in sonography, e.g., 3D and 4D imaging, the use of contrast mediums to improve image quality and enhance diagnosis, harmonic imaging, picture archiving, and communication systems, mechanical and thermal indices, and M-Mode imaging are covered. *Lecture-laboratory. Prerequisite: DIMI 3102; co-requisite: DIMI 3200. 3 credits.*

#### **DIMI 3208 Obstetrics and Gynecology**

The normal anatomy and physiology of the reproductive system are taught. Normal and abnormal fetal development are explained, including etiology, treatment procedures, and diagnostic techniques for abnormalities. Students also learn basic concepts of birth control, family planning, and infertility treatment. Diseases affecting the reproductive tract are exploring in terms of clinical symptoms, applicable diagnostic techniques, treatment procedures, and prognosis. This course provides the background for understanding manifestations of ob-gyn pathology detected on sonograms. *Lecture. 2 credits.*

#### **DIMI 3210 Clinical Internship II**

This course is a building block to Clinical Internship I. Clinical Internship II focuses on clinical techniques and protocols on a more advanced level. The student will learn to properly manipulate ultrasound machine controls and operate equipment in the lab, demonstrate the

ability to use proper scanning techniques in performing abdominal and obstetric, and gynecologic examinations.

The student will continue to demonstrate an increased ability to acquire images, interpret sonographic findings, and formulate differential diagnoses of common pathologies. Students should be able to operate the ultrasound equipment with a degree of ease, perform a basic scan with supervision, and interact appropriately as a member of the sonography team.

Instructional settings include hospitals and healthcare facilities. The clinical project required. *Laboratory. DIMI 3101, DIMI 3102, DIMI 3105, DIMI 3106, and DIMI 3110. 4 credits.*

#### **DIMI 3217 Cross-Sectional Anatomy of the Abdomen and Pelvis**

This course involves extensive study of the abdominopelvic regions. These are studied primarily in axial, sagittal, and coronal tomographic planes. Emphasis is placed on the anatomic relationships among organs. *Prerequisite: ANAT 3105. Lecture-laboratory. 3 credits.*

#### **DIMI 3235 Monitoring and Assistance of the Patient**

This course teaches the student sonographer techniques for assisting and monitoring the patient who is being examined. Lectures and practical demonstrations are given on vital signs, patient care, cultural competency in the medical setting, the role of the sonographer in the medical setting, how to scan ergonomically, move patients into or out of bed or wheelchair and respond appropriately to emergency situations. The student will also learn about appropriate patient-sonographer interaction, communication barriers, safety, and infection control prevention. *Lecture, presentations, and demonstrations. 1 credit.*

#### **DIMI 4009 Cardiology**

This course provides an overview of normal cardiac anatomy, physiology. Focus on heart sounds, electrical activity, basic EKG and hemodynamics of the heart. Diseases affecting the heart are described, including pathophysiology, clinical symptoms, diagnostic techniques, treatment procedures and prognosis. This course provides the background for understanding manifestations of cardiovascular disease on echocardiograms. *Lecture. 2 credits.*

#### **DIMI 4010 Clinical Internship III**

This internship is a six-week clinical rotation. Students hone their scanning skills in the clinical setting and learn to demonstrate independent judgment in determining which abdominal and obstetrics and gynecological scans are of diagnostic quality. The student is able to provide preliminary impressions, and differential diagnoses with minimal supervision and becomes confident in presenting cases. Instructional settings include the student scan lab, hospitals, and other healthcare facilities. Students are required to pass an abdominal objective structured clinical examination



(OSCE) on campus in order to complete this course. *Clinical project required. Prerequisites: DIMI 3110, DIMI 3200, and DIMI 3210. 3 credits*

#### **DIMI 4013**

##### **Vascular Principles and Instrumentation**

This course focuses on the anatomy and physiology of the abdominal vasculature, cerebrovascular, peripheral arterial, and venous systems. The carotid system, Circle of Willis, and upper and lower extremity arterial and venous vessels that are evaluated by ultrasound are identified and correlation with their sonographic appearance. Doppler tracings of arterial versus venous waveforms are demonstrated. Concepts in vascular hemodynamics as related to current sonographic applications are addressed as well. This course also requires students to acquire basic techniques in vascular scanning. *Lecture, laboratory. 1 credit.*

#### **DIMI 4015**

##### **Introduction to Medical Statistics**

The fundamental principles of statistics are taught, including descriptive statistics, measures of central tendency, correlations, and measures of significance. This course is intended to provide a foundation for MSCI 4100 Research Methods and DIMI 4214 Research and Independent Study, and enable the student to understand statistical analysis used in the sonography research literature. *Lecture, laboratory. 1 credit.*

#### **DIMI 4035**

##### **Case Presentations**

DIMI 4035 Case Presentations  
Presentation of cases scanned or identified by students in their clinical lab experiences. Objectives include increasing skill in the following areas; correlation of didactic knowledge with actual pathology, critique of sonographic images for technique, experience researching topics in ultrasound journals, as well as broadening student exposure to unusual pathologies. *Lecture, presentations. 1 credit*

#### **DIMI 4104**

##### **Sonography III (Echocardiography)**

Echocardiography is an imaging technique that uses ultrasound to examine the heart, its chambers, walls, and valves. Cardiac ultrasound is a unique way to evaluate the heart's anatomy, structure, and function and is used to aid in the diagnosis of cardiovascular disease. This course focuses on the adult heart. Scanning techniques, protocol, image acquisition, and instrumentation including 2D, M-Mode spectral, and color-flow Doppler are taught, as well as hemodynamics. Tissue Doppler, strain, and 3D/4D are introduced. Topics such as normal and abnormal systolic/ diastolic function, valvular disease, cardiomyopathies, coronary artery disease, aortic disease, pericardial disease, tumors, and infection are covered, as well as congenital heart disease as seen in the adult. Stress echo and TEE are also introduced. Correlation with cardiac pathophysiology is stressed. *Lecture, laboratory. Prerequisites: DIMI 3101, DIMI 3200, and DIMI 4009; course co-requisite: DIMI 4110. 4 credits.*

#### **DIMI 4106**

##### **Cross-Sectional Anatomy of Thorax and Head**

Extensive study of thorax, neck, and head regions. These are studied in axial, sagittal, and coronal planes. Emphasis is placed on anatomical relationships between organs. *Lecture, laboratory. Pre-requisite: Anat 3105. 3 credits.*

#### **DIMI 4110**

##### **Clinical Internship IV**

The student will spend two days a week at a cardiac clinical site. The student will practice proper cardiac scanning techniques using M-mode, 2D, and Doppler modalities to produce diagnostic echocardiograms. The student will integrate didactic coursework with clinical practice to arrive at diagnostic interpretations. Instructional settings include hospitals, other healthcare facilities, or educational sites. The clinical project required. *Prerequisites: DIMI 3110, DIMI 3210, DIMI 4009, and DIMI 4010. Co-requisite: DIMI 4104. 3 credits.*

#### **DIMI 4111**

##### **Fundamental Principles of Imaging Modalities**

This course provides an overview of diagnostic imaging modalities that are complementary to diagnostic ultrasound. These include nuclear medicine, radiography, digital subtraction angiography, cardiac catheterization, positron emission tomography, CT, and MRI. The fundamental physical principles, technique, technology, and interpretive criteria of each modality are taught. *Lecture. 2 credits.*

#### **DIMI 4202**

##### **Sonography IV (Pediatric Echocardiography)**

An overview of normal and abnormal pediatric echocardiography with a focus on understanding the segmental approach to the anatomic and physiologic concepts of congenital heart disease. This course will include cardiac embryology with the study of congenital anomalies and their imaging as seen on echocardiograms. Surgical and palliative repairs are introduced as well. *Lecture. Prerequisites: DIMI 4009, DIMI 4104. 1.5 credits.*

#### **DIMI 4210**

##### **Clinical Internship V**

Clinical Internship V is the fifth clinical experience in the Diagnostic Medical Imaging Program and the second rotation in an echocardiography clinical site. Students will refine their cardiac scanning skills and apply and integrate their knowledge of Adult Echocardiography. The student will practice proper echocardiographic scanning techniques using 2D, M-mode, and Doppler modalities to produce diagnostic echocardiograms. Clinical Internship V provides the opportunity for students to achieve proficiency in the cognitive, affective, and psychomotor domains necessary to perform a diagnostic echocardiogram. Students must complete all outstanding Cardiac competencies during this clinical internship. The student will demonstrate the ability to interpret sonographic findings and provide preliminary diagnostic impressions, including differential diagnosis, and explain the sonographic examination procedure and findings. Instructional settings include hospitals, healthcare facilities, Clinical projects required. *Prerequisite: DIMI 4110. 3 credits.*

#### **DIMI 4215**

##### **Professional Seminar and Administrative Techniques**

This course is a 1 credit seminar involving the presentation and discussion of relevant issues in the allied health field, including ethical considerations, cultural competence, professional development, and comparison of employment settings. Review for national registry exams is included. Peer to Peer Scanning Instruction will allow the student to demonstrate knowledge and application of ergonomic techniques as well as knowledge and application of image production and optimization. *Seminar. 1 credit.*

#### **DIMI 4213**

##### **Introduction to Teaching Methods**

An introduction to the latest learning theories and instruction in organizing content, identifying and creating learning objectives, lesson planning, course syllabi, motivational techniques, teaching tools, and styles of presentation. *Lecture, research, presentations. 2 credits, Elective.*

#### **DIMI 4214**

**Research and Independent Study** In consultation with faculty, students design and conduct original research projects in their area of interest. A written report of the project is submitted and an oral presentation is made at the annual Research Colloquium. The presentations will be made to the senior and junior classes, faculty, and invited clinicians from all clinical affiliations. *Prerequisite: DIMI 4015 and MSCI 4100. Lecture, research, presentations. 3 credits.*

#### **DIMI 4301**

##### **Sonography V**

##### **(Vascular & Advanced Topics Ultrasound)**

This course is an in-depth study of cerebrovascular and peripheral arterial and venous Duplex ultrasound. Cerebrovascular, venous, and peripheral arterial disease is studied, as well as identification of what imaging techniques are appropriate. Students learn advanced scanning techniques and complete scanning assignments as applied to abdominal vasculature, and peripheral arterial and venous protocols. The course also includes lectures, advanced topics, and emerging trends in ultrasound. *Lecture, laboratory. Prerequisite: DIMI 4013. 1.0 credit.*

#### **DIMI 4500**

##### **Independent Study**

This course provides students who are on a modified course of study with an opportunity to bolster their skills in a specific area of interest/ need. A faculty member is assigned as the course director to identify their specific goals and objectives to be achieved, select and describe the methodology, and designate a final product. Students and faculty preceptors confer at mutually agreed upon intervals regarding the progress of the study. *Elective offered on an as-needed basis. 1-3 credits.*

#### **DIMI 4220**

##### **Clinical Internship VI**

Clinical Internship VI is the final clinical experience in the Diagnostic Medical Imaging Program. Students are expected to incorporate all of their

sonographic training, knowledge, and experience acquired from Clinical Internships I-V, and refine their scanning skills. Participants should be able to establish professional readiness and demonstrate achievement of entry-level proficiency in Abdominal, Obstetrics & Gynecology, and Adult Cardiac Sonography. The student will provide documentation of completion of all basic competencies for the General (Abdomen, Obstetrics & Gynecology) and Cardiac Sonographer, as described by CAAHEP 2020 Standards & Guidelines. Clinical Internship VI provides the opportunity for students to achieve efficiency, improve self-confidence, and demonstrate skills in the cognitive, affective, and psychomotor domains necessary to perform diagnostic sonograms. Students must also provide documentation of satisfactory completion of all outstanding OSCEs during this clinical internship Interprofessional Courses. See pg. 41 for course descriptions.

**ADMN 3100**

**Health Care Delivery in the United States**

**INDI5012**

**Brooklyn Free Clinic Experience**

**MSCI 4100**

**Research Methods**

## **MEDICAL INFORMATICS**

### **Master of Science Degree**

Chairperson and Associate Professor  
*Mohammad Faysel*

Program Administrator  
*Shaneka John*

Clinical Associate Professor  
*David R. Kaufman*

Assistant Professor  
*Adiebonye Jumbo*

Adjunct and Clinical Faculty  
*Srinivasan Kolla, Frank Luo, Jonathan Mababir,*

Medical informatics professionals implement and manage a wide range of applications and systems that process health-generated information with the support of information technology.

Informaticians integrate computerized health-information databases that store clinical information, radiographic images, and laboratory data that are critical for quality patient care. Several external developments have influenced the need for educational programs in informatics: expanding information technology, enhanced attention to quality assurance and patient safety, HIPPA regulations, and disease surveillance. The curriculum in medical informatics reflects the knowledge and skills necessary to organize, store, and retrieve complex health-information systems. Students are taught to work as members of the healthcare team and to interact with health providers, technologists, and administrators to maximize medical data management. Students also learn the use of new technologies in communication and information management, including telecommunication, medical imaging systems, and digital libraries.

### **THE PROGRAM**

The Medical Informatics Master's Degree Program is a 39-credit full-time or part-time course of study. The curriculum is designed to meet the needs of students from a wide range of backgrounds. The courses are sequenced to encompass an overview of the discipline of medical informatics and to develop competencies and skills required by the discipline. The courses include database systems, network architecture, medical imaging systems, Internet integration, and medical-decision support systems. Students are required to conduct an independent research study in medical informatics.

### **ACCREDITATION**

SUNY Downstate Health Sciences University is accredited by the Middle States Commission on Higher Education. The academic programs of the School of Health Professions are registered with the New York State Department of Education.

### **ADMISSION REQUIREMENTS**

A bachelor's degree or equivalent from an accredited academic institution is required for admission. Please refer to pg. 10-16 of this Bulletin. Check for the latest requirements and apply online through

the Admissions section of Downstate's website:  
<https://www.downstate.edu/education-training/school-of-health-professions/admissions/index.html>

### **GRADUATION HONORS**

*Award for Excellence in Research*—presented to a graduating student in recognition of excellence in student research work.

*Award for Outstanding Service*—Presented to a graduating student for outstanding contributions to the Medical Informatics Program, profession, and the Downstate community.

*Award for Outstanding Leadership*—presented to a graduating student for demonstrating outstanding leadership qualities.

*Award for Academic Excellence*—presented to a graduating student for outstanding academic performance.

*Award for Clinical Excellence*—presented to a graduating student for outstanding clinical performance and professionalism.

### **CAREER OPPORTUNITIES**

An increasing number of healthcare employers are looking for graduates who possess knowledge and skills in the multifaceted field of medical informatics. Employers are looking for people with a technical understanding of computers and networks, problem-solving skills, communication skills, and experiences in health information systems.

Some of the job titles include Systems Administrator, Health Informaticist, Network Manager, Health Information Administrator, Clinical Services Manager, Application Analyst, Healthcare IT Software Trainer, Clinical Analyst, Clinical Information Specialist, EMR Application Analyst, Decision Support Administrator, Clinical Systems Integration Support Analyst, Clinical Systems Trainer, Data Analyst, Epic Support Analyst, and Physician Office IT Coordinator.

### **COURSE DESCRIPTIONS**

#### **MIMS 5001**

##### **Computer Science for Medical Informatics**

This course provides an overview of computer science as a science of abstraction. The course introduces computer programming as a way of thinking. Students create models and implement abstractions using data structures and algorithms. This course is intended for students with limited computer background. *Lecture and computer lab experience. 3 credits.*

#### **MIMS 5002**

##### **Internet Integration in Health Care**

This course provides an overview of the Internet and web integration into health care. The course addresses legal, social, and ethical issues as well as various techniques for creating attractive and functional web-based applications. *Lectures and computer lab. 3 credits.*

#### **MIMS 5100**

##### **Introduction to Medical Informatics**

This course provides an overview of the medical informatics field, combining perspectives from medicine, computer science, and social science. The course covers the organization of medical

information, the effective management of information using computer technology, and the impact of such technology on medical research, education, and patient care. *Lecture and computer lab. 3 credits.*

#### **MIMS 5101**

##### **Database System Applications in Biomedicine**

This course provides an introduction to the fundamentals of the database system. Current database structures such as hierarchical, network, relational, and object-oriented are described and compared in terms of their applications in the health field. Emphasis is placed on relational database systems in health care. *Lecture and computer lab. 3 credit.*

#### **MIMS 5102**

##### **Health Care Across the Lifespan**

This course is designed to examine health care from infancy to old age.

#### **MIMS 5201**

##### **Topics in Medical Informatics**

This course provides a forum for analysis and discussion of various topics in the medical informatics literature under the direction of a faculty advisor. *Lecture. 2 credits.*

#### **MIMS 5202**

##### **User Interface in Medical Informatics**

This course provides an overview of theoretical, development, design, and assessment models and techniques in the field of intelligent user interfaces under an interprofessional approach (computer science, psychology, cognitive science, and artificial intelligence). *Lecture. 3 credits.*

#### **MIMS 5203**

##### **Information Retrieval and Digital Libraries**

This course provides an overview of information-retrieval methods with an emphasis on biomedical information retrieval. *Lecture and computer lab. 3 credits.*

#### **MIMS 5204**

##### **Medical Imaging Systems**

This course provides an introduction to computer graphics and medical imaging techniques. Methods of digital image processing are explored; 2-D and 3-D imaging modalities are reviewed and demonstrated through on-site medical equipment. *Lecture and computer lab. 3 credits.*

These models will be drawn from disease states as they evolve across the lifespan. This course also includes a review of the anatomy, physiology, and pathology of selected organ systems and their associated diseases. *3 credits.*

#### **MIMS 5110**

##### **Health-care Computer Network Architecture**

This course provides an introduction to computer networks and their use in medicine. An overview of the topologies of computer networks is covered. Network security as it applies to HIPPA regulations is also explored. *Lecture and computer lab. 4 credits.*



**MIMS 5111****Research Methods**

This course introduces students to the basics for participating in the development, implementation, and evaluation of research studies in medical informatics. *Lecture and computer lab. 3 credits.*

**MIMS 5112****Medical Decision Support System**

This course provides an introduction to methods of medical decision making in the face of uncertainty, as well as the implementation of electronic health record systems. The course includes training in methods of implementation, including project management, use of appropriate tools, and workflow analysis and redesign. It also covers the design and implementation of decision support and related topics, such as security, working remotely and in multidisciplinary teams, interoperability and HL7, healthcare terminologies, mobile devices, and meaningful use. *Lecture and computer lab. 3 credits.*

**MIMS 5121****Master's Essay in Medical Informatics**

Students are required to develop a proposal for a research project in medical informatics to be carried out under the supervision of a faculty advisor and to conduct the research. A written report on the results of a research project in medical informatics must be presented. *Lecture. 3 credits.*

**MIMS 5201**

**Topics in Medical Informatics** This course provides a forum for analysis and discussion of various topics in the medical informatics literature under the direction of a faculty advisor. *Lecture. 2 credits.*

**MIMS 5202****User Interface in Medical Informatics**

This course provides an overview of theoretical, development, design, and assessment models and techniques in the field of intelligent user interfaces under an interprofessional approach (computer science, psychology, cognitive science, and artificial intelligence). *Lecture. 3 credits.*

**MIMS 5203****Information Retrieval and Digital Libraries**

This course provides an overview of information-retrieval methods with an emphasis on biomedical information retrieval. *Lecture and computer lab. 3 credits.*

**MIMS 5204****Medical Imaging Systems**

This course provides an introduction to computer graphics and medical imaging techniques. Methods of digital image processing are explored; 2-D and 3-D imaging modalities are reviewed and demonstrated through on-site medical equipment. *Lecture and computer lab. 3 credits.*

**MIMS 5205****Evaluation of Health-care Information Systems**

This course provides an overview of methods to evaluate the use of information and information systems in health care. Issues specific to information systems in health care—usability, checklist effect,

difficulty blinding, knowledge-based evaluation, etc.—are highlighted. Case studies will be used to illustrate concepts. Elective. *Lecture. 3 credits.*

**MIMS 5206****Independent Study**

Students are provided an opportunity to independently explore current issues affecting Medical Informatics through evaluation and critical analysis of the current literature and practices. This course will meet the needs of students who would like to study a specific issue under the guidance of a faculty member or as a hands-on experience with a clinical proctor. *Elective. 1–3 credits.*

**MIMS 5207****Clinical Internship in Medical Informatics**

This course is designed to prepare students to meet the challenges of integrating computer systems into the framework of hospital administration, patient care, medical practice, and other aspects of the practice of informatics. Students may evaluate healthcare information systems and their integration in clinical facilities and participate in use, integration, and observing clinical contexts of healthcare information systems. Students may also participate in research and observation of those in various informatics roles, depending on their interests. Student activities depend on the needs of the clinical sites and can include devising evaluation criteria and tools, interviewing stakeholders, evaluating system interfaces, and analyzing the integration of the systems in the overall patient care effort of the clinical facility. *3 credits.*

Interprofessional Courses

See p. 41 for course descriptions.

**INDI 5014****Brooklyn Free Clinic Experience**

## MIDWIFERY

### Master of Science Advanced Certificate

Chairperson and Professor  
*Ronnie Lichtman*

Clinical Assistant Professors  
*MaryAnne Laffin, Susanrachel Condon, Shakima Wiggins*

Clinical Preceptors (CNMs/CMs)

### THE MIDWIFERY PROFESSION

Midwifery Certification Board (AMCB) are prepared to provide prenatal care, labor and delivery management, postpartum care, gynecologic, reproductive, and sexual health care, and primary health care to essentially normal, healthy people with female reproductive organs and to care for normal newborns. The increasing demand for midwifery services throughout the United States has created practice opportunities within a variety of clinical settings. Midwives work in private or group practices, birth centers, health maintenance organizations, hospitals, and ambulatory care centers. Although certified midwives are independent practitioners, they consult and collaborate with physicians and other members of the health care team when people in their care develop complications. They also initiate referrals as appropriate.

### PROGRAMS OF STUDY

The Midwifery Program is a graduate-level program that prepares students to become safe beginning practitioners in accordance with the standards established by the American College of Nurse-Midwives and the American Midwifery Certification Board. The program accepts registered nurses and other individuals who meet admissions requirements. Students wishing to become midwives may select one of two tracks: Advanced Certificate in Midwifery (40 credits for those with a related graduate degree at the discretion of the midwifery faculty and the Master of Science—Midwifery (52 credits. Graduates of either track are eligible to take the national certifying examination administered by the American Midwifery Certification Board (AMCB). The Advanced Certificate track is a two-year program and the Masters track is a three-year program.

### REQUIREMENTS FOR ADMISSION

Please refer to pg. 10-16 of this Bulletin. Check for the latest requirements and apply online through the Admissions section of Downstate's website: <https://www.downstate.edu/education-training/school-of-health-professions/admissions/midwifery/index.html>.

### PROGRAM OBJECTIVE

The objective of the program is to prepare midwives who are able to provide competent, safe, appropriate, compassionate, and comprehensive primary health care to people with female reproductive organs from adolescence through their postmenopausal years; assume responsibility for the management of essentially normal neonates;

and manage collaboratively the care of people with selected obstetrical, gynecologic, and medical problems.

The faculty has developed a curriculum that recognizes the special needs of adult learners and builds upon previous education and experience. a. Clinical practice is provided at a variety of facilities within the New York metropolitan area and surrounding locations. Special provisions are also possible for clinical placements outside of New York City and New York State. A 2:1 student/faculty ratio is maintained within the clinical and laboratory settings. The faculty works collaboratively with the College of Medicine's Department of Obstetrics and Gynecology and shares teaching/ learning resources with other programs within the School of Health Professions.

### PROGRAM HISTORY

This program evolved from the first nurse-midwifery school in the United States. Initially founded in 1932 at the Maternity Center Association (MCA) in New York City, the program moved to Kings County Hospital in 1958 and in 1974 became an integral part of Downstate Health Sciences University. The Midwifery Program was one of the first academic units of the School of Health Professions.

### DIRECT ENTRY

In 1996, an innovative direct-entry option was created for qualified individuals from a variety of backgrounds who desire to become certified midwives. Prerequisite science and social science courses are required for this track. Once accepted, students may be required to successfully complete between a course that has been specifically designed for them; in all other ways, they will be fully integrated into the Midwifery Program along with their nurse peers. At the completion of their program of study, all students will have achieved the same program competencies at comparable levels of performance and may apply for licensure to practice midwifery in New York State. Certified midwives (as compared to certified nurse-midwives), may not receive automatic reciprocity from other states; thus, once licensed, their professional practice may be limited to those states with specific statutes recognizing this certification.

### ACCREDITATION

The program is fully accredited by the Accreditation Commission for Midwifery Education (ACME) and is registered and approved by the New York State Education Department. For more information on midwifery accreditation, contact the ACME, 8403 Colesville Road, Suite 1550, Silver Spring, MD 20910-6374; (204) 485-1802; <http://www.midwife.org/accreditation>.

### CAREER OPPORTUNITIES

Midwives work in private or group practices, including home birth practices, alternative birth centers, health maintenance organizations, hospitals, and ambulatory-care centers. Although midwives are independent practitioners, they consult and collaborate with physicians and other health care providers and initiate referrals as appropriate.

## AWARDS FOR ACADEMIC AND CLINICAL EXCELLENCE IN MIDWIFERY

Academic Excellence Award  
Clinical Excellence Award  
Research Award  
Joan B. Ditchik Memorial Award  
*Laurie Ourlicht Faculty Recognition Award*  
*Lily Hsia Midwifery Student Scholarship Award*  
*The Suzanne Louis Reddick Spirit of Midwifery Award*  
*The Nancy Moley Positivity Award*  
*The Gigi Robin Joyful Midwifery Award*  
*The Marilyn Cottrell Award for Family Planning*

In addition, the following awards are given to members of the midwifery graduating class by their peers:

*Joan Zavitz Memorial Award for Perseverance*  
*Outstanding Student Leadership Award*

### THE CHALLENGE MECHANISM

The Midwifery Program allows selected students to take certain courses via a challenge mechanism. Eligibility for the challenge mechanism as well as appropriate courses to challenge are determined after acceptance in consultation with the faculty. Eligible students include those who have graduated from an accredited nurse practitioner or physician assistant program, hold national certification or licensure in any state in an accepted health profession, or who have graduated from a regionally accredited midwifery or medical program in another country as verified by a member of the National Association of Credential Evaluation Services (NACES).

Challenge courses may be didactic or clinical courses or both. Once the student is accepted to the Midwifery Program, faculty will review whether or not he or she is eligible to take any of the midwifery courses via a challenge mechanism and will determine with the student which courses they may challenge. The faculty and student will then develop a time frame for challenging courses. All challenged courses must be registered and paid for. There is no penalty for failing the challenge. The student who fails a challenge will then complete the course in the usual manner. Detailed policies regarding the challenge mechanism will be made available to qualified students.

### COURSE DESCRIPTIONS

Note: MIDW courses must be taken by direct-entry students who do not hold RN credentials, unless exempted by the midwifery faculty. Course descriptions and requirements are subject to change and updated course descriptions are found on the program's website.

### MIDW 4001

#### Basic Health Skills

This course is designed to provide the student with the opportunity to learn or reinforce basic health skills in a classroom/laboratory setting. Upon completion of the course, the students will be able to demonstrate 1) basic competence, 2) concern for human and environmental safety and 3) sensitivity and respect for patients. Skills covered in this course include understanding and obtaining basic laboratory and diagnostic tests, cultures and specimens; implementation of sterile technique and wound care; and skills such as catheterization,

phlebotomy, dispensing of medication, including oral, intramuscular, subcutaneous, and intravenous routes. 3 undergraduate credits.

#### **NRMW 5009**

**Obstetric Pharmacotherapeutics** This course provides basic concepts and underlying principles of pharmacologic management during pregnancy. Emphasis is given to pharmacokinetics during pregnancy, teratology, vitamins and minerals, immunizations, and hypertensive disorders of pregnancy, as well as obstetric analgesia and anesthesia. 1 graduate credit.

#### **NRMW 5017**

##### **Professional Issues and Leadership in Midwifery**

The purpose of this course is to prepare the student to assume the role and responsibilities associated with professional midwifery practice. This course introduces the student to the development of the profession of midwifery as well as the history, structure, and functions of the American College of Nurse-Midwives (ACNM), midwifery's professional organization. Seminars will cover issues and politics of health care delivery and midwifery practice on the local, national and international levels. Students will participate in field trips and professional activities, including attending professional meetings and meeting with local legislators. The goal is to promote the development of the professional midwifery leader. 3 graduate credits.

#### **NRMW 5018 Toward Racial and Social Justice in Midwifery Practice and Education**

The purpose of this course is to give students an in-depth appreciation of racism and inequity in midwifery practice and education. Topics will cover the history of midwifery from a social and racial justice perspective; social and racial justice in maternity and reproductive and sexual health; and cultural humility and respect. Students will also participate in professional activities including attending Advocacy Day in Albany, New York, sponsored by the New York State Midwives. They will analyze such activities from the lens of racial and social justice and equity. The goal is to continue to promote the development of the professional midwifery leader with a sensitivity to issues of equity and justice. 1 graduate credit

#### **NRMW 5122 Preparation for Midwifery Practice**

The purpose of this course is to build upon the concepts covered in Professional Issues and Leadership and continue to prepare the student to assume the role and responsibilities associated with professional midwifery practice. This course further develops the student's appreciation of the professional responsibilities in midwifery practice beyond clinical practice including precepting students and prepares the students for the process of securing a midwifery position as a new graduate.

1 graduate credit

#### **NRMW 5104**

##### **Neonatology, Didactic**

This course focuses on the care and management of the normal newborn from birth through the

neonatal period. Knowledge and skills of resuscitation, immediate delivery-room management, and comprehensive physical examination, including neurological and gestational age assessment, are presented and practiced. Problems, normal variations in the neonate, pathophysiology, common congenital anomalies, growth and development, and anticipatory guidance are integrated with the midwifery management process. Emphasis is also placed on the midwife's role as an advocate and liaison for families with the healthcare delivery system. 3 graduate credits.

#### **NRMW 5104**

##### **Neonatology, Clinical**

The Neonatology, Clinical course focuses on acquisition of skills involved in providing immediate care of the newborn following birth and a comprehensive assessment of the newborn as well as physical examination, behavioral, and gestational age assessment. Students are taught and practice newborn physical assessment skills prior to being supervised in a clinical setting by midwifery faculty.

This course is taken subsequent to or concurrent with NRMW 5106, Neonatology, Didactic.

#### **NRMW 5105**

##### **Postpartum Care, Didactic**

This course emphasizes the care and management of women from delivery of the infant to four to six weeks postpartum. Topics covered include physiology of involution, comprehensive postpartum assessment skills, needs of the postpartum mother and family, counseling regarding self-care, initiation, and support for lactation, care of the infant, and restorative exercises.

Management of postpartum discomforts and complications are also included. Students will provide assessment and follow-up of women during the early postpartum period with faculty supervision. 1 graduate credit.

#### **NRMW 5105**

##### **Postpartum Care, Clinical**

This course emphasizes care and management of postpartum persons from the birth of the infant to four-to-six weeks postpartum. Topics covered include: physiology of involution, comprehensive postpartum assessment skills, needs of the postpartum person and family, counseling regarding self-care, initiation and support for lactation, care of the infant, and restorative exercises. Management of postpartum discomforts and complications are also included. Students will provide assessment and follow-up of postpartum persons during the early postpartum period with faculty supervision. .5 graduate credits

#### **NRMW 5116**

##### **Advanced Pathophysiology of Acute and Chronic Conditions in Women and Their Primary Care**

The purpose of this course is to give students an in-depth appreciation of racism and inequity in midwifery practice and education. Topics will cover the history of midwifery from a social and racial

justice perspective; social and racial justice in maternity and reproductive and sexual health; and cultural humility and respect. Students will also participate in professional activities including attending Advocacy Day in Albany, New York, sponsored by the New York State Midwives. They will analyze such activities from the lens of racial and social justice and equity. The goal is to continue to promote the development of the professional midwifery leader with a sensitivity to issues of equity and justice. 1 graduate credit

#### **NRMW 5112**

##### **Advanced Physical Assessment of Women Didactic**

This course is designed to provide basic knowledge and skills needed for the practice of primary women's health care. Emphasis is placed on history-taking and physical examination, exclusive of the reproductive system. Relevant anatomy and physiology and normal and abnormal findings are included. Students may take this course as part of the Midwifery Program challenge option. Students will register for the course in the Summer Semester.

All materials and requirements will be given to students. If the student passes the course requirements, the student may then register for Physical Assessment of Women, Clinical (1 grad credit) for the Fall Semester. If the student fails to pass the course requirements, the student will complete this course in the fall semester, along with Physical Assessment of Women, Clinical.

1 graduate credit.

#### **NRMW 5113**

##### **Advanced Physical Assessment of Women, Clinical**

This course is designed to provide skills needed for the practice of primary women's health care. Physical Assessment of Women, Didactic, is a pre-or co-requisite to this course. Emphasis is placed on history-taking and physical examination, exclusive of the reproductive system. Emphasis is on the sequence and techniques of physical examination. Students may take this course as part of the Midwifery Program challenge option. Students will register for the course in the Fall Semester. All materials and requirements will be given to students, including the Competency Performance Examination. The student will take the Competency Performance Examination within the first week of the semester. If the student passes the Competency Performance Evaluation, the student may move onto other didactic and clinical courses in the Midwifery Program. If the student fails to pass the Competency Performance Examination, the student will have the rest of the semester to complete this course by attending the usual classes. 1 graduate credit.

#### **NRMW 5114**

##### **Pelvic Assessment of Women Didactic**

This course is designed to provide basic knowledge needed for the assessment of women's reproductive system. Emphasis is placed on history-taking and pelvic examination techniques. Relevant anatomy and physiology, and normal and abnormal findings are included. Students will register for the course in the Summer or Fall semesters. Physical Assessment



of Women, Didactic, is a pre- or co-requisite. Students may take this course as part of the Midwifery Program challenge options. These students will register in the Summer Semester. All materials and requirements will be given to the students. If the student passes the course requirements, the student may then register for Pelvic Assessment of Women, Clinical (0.5 grad credit) for the Fall Semester. If the student fails to pass the course requirements, the student will complete this course in the Fall Semester, along with Pelvic Assessment of Women, Clinical. *0.5 graduate credit.*

#### **NRMW 5115**

##### **Pelvic Assessment of Women, Clinical**

This course is designed to provide basic skills needed for the assessment of women's reproductive system. Emphasis is placed on sequence and techniques of pelvic examination. Pelvic Assessment of Women, Didactic and Physical Assessment of Women, didactic and clinical are pre- or co-requisite courses. Students may take this course as part of the Midwifery Program challenge option. Students will register for the course in the Fall Semester. All materials and requirements will be given to students, including the Competency Performance Examination. The student will take the Competency Performance Examination within the first week of the semester. If the student passes the Competency Performance Examination, the student may move onto other didactic and clinical courses in the Midwifery Program. If the student fails to pass the Competency Performance Examination, the student will have the rest of the semester to complete this course by attending the usual classes. *0.5 graduate credit.*

#### **NRMW 5117**

##### **Continuity of Care in Midwifery in Midwifery Practice 1**

This course is an elective that, with Continuity of Care 2 and 3, is designed to allow the student midwife to experience the entire childbearing cycle—antepartum, intrapartum, and postpartum and newborn care—with one woman and family in a home birth setting. The student will be mentored by a homebirth midwife. Students will work close by with this midwife, as well as with a faculty clinical liaison, throughout the course. This course is the first part of a three-course didactic and observational sequence. Students will begin the three-course sequence in their first or second year in the program. They will follow women throughout their pregnancy. *0.5 credits*

#### **NRMW 5205**

##### **Advanced Pharmacology**

This course will begin with the basic concepts of pharmacology and the principles of pharmacokinetics and pharmacodynamics. Students will be introduced to the mechanisms by which commonly used pharmacotherapeutics alter normal physiology as well as the pathophysiology of selected disease states. Emphasis will be placed upon the students' knowledge of classifications of drugs rather than individual drug therapies. Students will be encouraged to consider the indication for use, mechanism of action, routes of administration, contraindications, precautions, adverse reactions, and interactions of commonly prescribed

pharmacotherapeutics. The legal basis of prescriptive authority is also addressed. *3 graduate credits.*

#### **NRMW 5208**

##### **Clinical Practicum in Primary Care**

Clinical Practicum in Primary Care is designed to augment the midwifery class Primary Health Care of Women (NRMW 5108), given in the students' first semester. This clinical practicum will take place after the students have already had clinical practice in ambulatory care in the midwifery specialties of well-woman gynecology and antepartum. This will allow the students to be precepted by midwives and thus socialized into the midwifery role before they have primary care clinical experience, which is more general and will include supervision by either adult or family nurse practitioners, primary care physicians, or physician assistants. In addition, students have some introduction to common health problems in their well-woman gynecology and antepartum clinical rotation, and Clinical Practicum in Primary Care will build upon that introduction. In Clinical Practicum in Primary Care, students will spend 42-48 hours in the clinical area, in adult health clinics or practices. They will see only female patients who present with common health problems for initial or follow-up care. They are not expected to achieve independence in management skills, but, rather to be exposed to the variety of health problems with which women present for care, and to begin to develop management skills in these areas. *1 graduate credit.*

#### **NRMW 5209**

##### **Medical and Obstetric Complications of Pregnancy**

This course focuses on the identification, diagnosis, evaluation, and follow-up of women with selected obstetric and medical complications during pregnancy. Emphasis is on the midwife's role in collaborating with physician(s) in the care and management of the high-risk woman during the antepartum, intrapartum, and immediate postpartum periods. Seminars and lectures utilize a case management approach to foster understanding of the pathophysiology, screening methods, diagnosis, treatment, and follow-up of selected complications. Faculty and experienced midwives who have had hands-on experience co-managing patients with complications serve as lecturers and seminar leaders. *1.5 graduate credits.*

#### **NRMW 5212**

##### **Gynecologic, Reproductive, and Sexual Health**

This course provides the knowledge base for gynecologic care from adolescence through postmenopause. Included are health promotion and illness prevention, preconception care and counseling, human sexuality, and family planning, as well as common gynecological problems that may be encountered during various stages of women's lives. Students may take this course as part of the Midwifery Program challenge option. Challenging students will register in the Fall Semester. (All other students will register in the Spring.) All materials and requirements will be given to the challenging students at the time of registration. If the student passes the course requirements, the student may then register for Well-Woman Gynecology, Clinical

for the Spring Semester. If the student fails to pass the course requirements, the student will complete this course in the Spring Semester, along with Well-Woman Gynecology, Clinical. *1.5 graduate credits.*

#### **NRMW 5213**

##### **Gynecologic, Reproductive, and Sexual Health, Clinical**

This course provides the basic skills needed for gynecologic care from adolescence through postmenopause. It gives students the opportunity to implement the knowledge attained in Well-Woman Gynecology, Didactic, in the clinical setting. Students may take this course as part of the Midwifery Program challenge option. All materials and requirements will be given to the students at the time of registration, including the Competency Performance Examination (CPE). The student will take the CPE within the first week of the semester. If the student passes the CPE the student may move onto other didactic and clinical courses in the Midwifery Program. If the student fails to pass the CPE, the student will have the rest of the semester to complete this course by attending the usual classes. *1.5 graduate credits.*

#### **NRMW 5214**

##### **Antepartum Care, Didactic**

This course provides the knowledge base for the management of care of essentially healthy women throughout the antepartum period. Maternal-fetal physiology and assessment, embryology, nutrition, childbirth education, breastfeeding, and the needs of the pregnant woman are presented and integrated with the midwifery management process. Students may take this course as part of the Midwifery Program challenge option. Students in the challenge option will register in the Fall Semester. (All other students will register in the spring.) All materials and requirements will be given to the students in the challenge option at the time of registration. If the student passes the course requirements, the student may then register for Antepartum Care, Clinical for the Spring Semester. If the student fails to pass the course requirements, the student will complete this course in the Spring Semester, along with Antepartum Care, Clinical. *1.5 graduate credits.*

#### **NRMW 5215**

##### **Antepartum Care, Clinical**

This course provides the basic skills needed for the management of care of essentially healthy women throughout the antepartum period. Maternal-fetal physiology and assessment, embryology, nutrition, childbirth education, breastfeeding, and the needs of the pregnant woman are presented and integrated with the midwifery management process. Students will provide care to pregnant women with faculty supervision. Students may take this course as part of the Midwifery Program challenge option. All materials and requirements will be given to the students at the time of registration, including the Competency Performance Examination (CPE). The student will take the CPE within the first week of the semester. If the student passes the CPE the student may move onto other didactic and clinical courses in the Midwifery Program. If the student fails to pass the CPE, the student will have the rest of the semester to complete this course by attending the usual classes. *1.5 graduate credits.*

**NRMW 5216****Continuity of Care in Midwifery Practice 2**

This course is an elective that, with continuity of care 1 and 3, is designed to allow the student midwife to experience the entire childbearing cycle—antepartum, intrapartum, and postpartum and newborn care—with one woman and family in a home birth setting. The student will be mentored by a homebirth midwife. Students will work closely with this mid-wife, as well as with a faculty clinical liaison, throughout the course. This course is the second part of a three-course didactic and observational sequence. Students will register for this course after completing continuity of care in midwifery practice 1. *0.5 credits.*

**NRMW 5302****International Women's Health Care Policy**

This two-week course in a host country provides the student with an overview of the healthcare delivery system of a host country. Students will have an opportunity to compare women's healthcare policy in the host country with that of the United States. Other areas covered are midwifery laws, education, and practice in the host country. Elective. *3 graduate credits.*

**NRMW 5309****Medical Complications of Pregnancy**

This course focuses on the identification, diagnosis, evaluation, and follow-up of women with selected medical complications during pregnancy. Emphasis is on the midwife's role in collaborating with physician(s) in the care and management of the high-risk woman during the ante- partum, intrapartum, and the immediate postpartum periods. Seminars and lectures utilize a case management approach to foster understanding of the pathophysiology, screening methods, diagnosis, treatment, and follow-up of selected complications. Faculty and experienced midwives who have had hands-on experience co-managing patients with complications serve as lecturers and seminar leaders. *1.5 graduate credits.*

**NRMW 5310****Continuity of Care in Midwifery Practice 3**

This course is an elective designed to allow the student midwife to experience the entire childbearing cycle—antepartum, intrapartum, postpartum, and newborn care—with one woman and family in a home birth setting. The student will be mentored by a homebirth midwife. Students will work closely with this midwife, as well as with a faculty clinical liaison, throughout the course. This course is the third part of a three-course didactic and observational sequence. Students will register for this course after completing continuity of care in midwifery practice 1 and continuity of care in midwifery practice 2. *0.5 credits.*

**NRMW 5401****Research I—online course**

This course provides the student with the knowledge and skills necessary to conduct and evaluate research studies. Emphasis is on the application of the research process. The student is expected to identify

a research topic with the appropriate conceptual framework, research questions, criteria for measurement, and methodology for data collection and analysis. An undergraduate course in statistics is a prerequisite for this course. *3 graduate credits.*

**NRMW 5402****Research II—online course**

This course provides the student with the opportunity to further develop a research project initiated in Research I through the collection and analysis of data. The application of statistical methods and standardized computer analysis techniques and programming is an integral part of the course. The student will interpret the results of the study and make recommendations for future research. A research paper is required. *3 graduate credits.*

**NRMW 5403****Health-Care Policy and Community Assessment—online course**

This course provides the student with an overview of the healthcare delivery system in the U.S. Students will have an opportunity to participate in healthcare policy analysis from socioeconomic, ideologic, political, and technological perspectives as well as the development of strategic planning for improving healthcare policy within the community. Other areas covered are issues related to healthcare organizations, mechanisms of financing, the role of the provider and consumer, as well as the influences of the local, state, and federal government in participation of healthcare delivery. Elective. *3 graduate credits.*

**NRMW 5404****Intrapartum Care Didactic**

This course emphasizes the management of care of normal women during labor, delivery, and the immediate postpartum period. Topics covered include anatomy of the pelvis, physiology and mechanisms of labor, care of the laboring woman, maternal and fetal assessment, delivery techniques and procedures, and early maternal/family and newborn bonding. Students will provide complete care and management of the intrapartum woman, including delivery and immediate post-partum with faculty supervision. *Lecture 5.5 graduate credits.*

**NRMW 5404****Intrapartum Care clinical**

This course emphasizes management of care of normal persons during labor, birth, and the immediate postpartum period. Topics covered include anatomy of the pelvis; physiology and mechanisms of labor; care of the laboring person; maternal and fetal assessment; birth techniques and procedures; and early maternal/family and newborn bonding. Students will provide complete care and management of the intrapartum person, including birth and immediate postpartum with family supervision. *3 graduate credits*

**NRMW 5405**

**Integration of Clinical Studies** In this course, the student acquires increased responsibility for clinical management of patients from adolescence through the postmenopausal period, including

antepartum, intrapartum, postpartum, and well-woman gynecologic care. The clinical study allows the student to integrate previously learned knowledge, skills, and judgment essential for the safe practice of midwifery. The student is required to pass a written comprehensive examination in addition to clinical field practice. *4 graduate credits.*

**NRMW 5407****Educational Theories, Philosophies, And Practices for Didactic And Clinical Teaching on-line course**

This course provides the student with the theories and methodology of curriculum planning, implementation, and evaluation. Students will learn the principles of teaching/learning, instructional objectives, methods of teaching, testing, and evaluation. Students will have hands-on experience in designing a micro-curriculum based on theories learned in the classroom. Knowledge of administration and theories of management and change will also be discussed in detail. *3 graduate credits.*

**NRMW 5409****Obstetric Complications of Pregnancy**

This course focuses on the identification, diagnosis, evaluation, and follow-up of women with selected obstetric complications during pregnancy. Emphasis is on the midwife's role in collaborating with physician(s) in the care and management of the high-risk woman during the antepartum, intrapartum, and immediate postpartum periods. Seminars and lectures utilize a case management approach to foster understanding of the pathophysiology, screening methods, diagnosis, treatment, and follow-up of selected complications. Faculty and experienced midwives who have had hands-on experience co-managing patients with complications serve as lecturers and seminar leaders. *1.5 graduate credits.*

**NRMW 5700****Independent Study**

This course provides the student with an opportunity to explore, in-depth and in a self-directed manner, a topic of special interest. Students, either individually or in groups, select a faculty member with whom they: 1) identify their specific focus; 2) define goals to be achieved; 3) select and describe methodology, and 4) designate a final product. Students and faculty preceptors confer at mutually agreed upon intervals regarding the progress of the study. Elective offered on an as-needed basis. *1-3 graduate credits. See the College of Nursing Bulletin for descriptions of the following courses:*

## OCCUPATIONAL THERAPY Master of Science Degree

### Interim Chairperson

*T'Shura Brown*

### Professor Emeritus

Joyce S. Sabari

### Associate Professor Emeritus

*Patricia Trossman*

*Teresa Miller*

### Associate Professor

*Brigitte Desport*

### Assistant Professors

*Krystal Brewington*

*Nancy Kline*

*Vikram Pagpatan*

*Jasmin Thomas*

### Clinical Assistant Professors

*Richard Sabel*

*Dawn Tribble*

### Academic Fieldwork Coordinator

*Jasmin Thomas*

Occupational therapy is the therapeutic use of self-care, work/productive activities, and play/leisure activities designed to achieve functional outcomes that increase independent function, enhance development, promote health, and prevent injury or disability. It includes adapting tasks and the environment to maximize independence and quality of life. The term "occupation" refers to activities that are meaningful to the individual within the environments in which he or she lives and functions.

Occupational therapists work with individuals whose abilities to cope with the tasks of daily living are threatened or impaired by developmental deficits, injury, illness, or disability.

## THE MS PROGRAM

This two-and-one-half-year graduate curriculum is designed to prepare students for professional practice as occupational therapists. Entering students must have completed a baccalaureate degree program in any field of study, as well as specific course requirements.

The curriculum comprises integrated course sequences in the health sciences, occupational therapy foundations, occupational therapy practice, and research theory and application. Fieldwork placements are integrated with related academic courses. Students are required to maintain a 3.0 GPA for retention and graduation from the program. The degree requirement includes six to nine months of full-time fieldwork experience (Fieldwork II Affiliations). A student may extend his/her course work over a three-year period and change to a part-time program after completing the first semester full-time. The full-time program starts at the beginning of June.

## ACCREDITATION, CREDENTIALING, AND LICENSURE

The program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 6116 Executive Boulevard, Suite 200, North Bethesda, Maryland, 20852; phone: (310) 652-6611.

The program is registered by the New York State Education Department. Graduates are eligible to sit for the national certification examination for occupational therapists administered by the National Board for Certification in Occupational Therapy (NBCOT); (301) 990-7979. After successful completion of this examination, the individual is entitled to use the designation, "Occupational Therapist, Registered" (OTR). A passing score on this examination fulfills the examination requirement for professional licensure in the State of New York. All states require licensure in order to practice; state licenses are based on the results of the NBCOT examination. (Applicants for the NBCOT examination will be asked to answer questions related to the topic of felony convictions.)

## ADMISSION REQUIREMENTS

Please refer to pg. 10-16 of this Bulletin. Check for the latest requirements and apply online through the Admissions section of Downstate's website:

<https://www.downstate.edu/education-training/school-of-health-professions/admissions/occupational-therapy/index.html>.

## CAREER OPPORTUNITIES

Graduates of an accredited occupational therapy program can expect excellent career opportunities in a variety of settings including hospitals, rehabilitation centers, ambulatory care centers, home health agencies, nursing homes, schools, psychiatric facilities, community agencies, and private practice. Graduates of the SUNY Downstate program are well prepared to work as clinicians, supervisors, administrators, consultants and educators in a wide variety of settings with diverse populations.

## GRADUATION HONORS

*Sigrid A. Hansen Award*—presented to the graduating student who best exemplifies exceptional levels of academic excellence, service, and professionalism  
*Patricia B. Trossman Award*—presented to the graduating student who best exemplifies commitment to innovation and advancement of the occupational therapy profession.  
*Pi Theta Epsilon (Alpha Kappa Chapter)*—national honor society for occupational therapy students.

## COURSE DESCRIPTIONS

### Foundations of Occupational Therapy I

Introduction to the foundations of the occupational therapy profession. Includes history and philosophy of the profession; professional ethics and issues influencing the consumer of health-care services; effects of disability and hospitalization on occupational performance; professional roles and functions; the interprofessional team; and the therapeutic use of activities and self. *Lecture-seminar. Summer. 2 credits.*

## OTMS 5002

### Kinesiology Laboratory

Laboratory experiences in the assessment of muscle and joint function including goniometry, manual muscle testing, kinematics, and kinetic analysis of activity. *Laboratory. Fall. 1 credit.*

## OTMS 5005

### Group Process

Principles and theories of group dynamics and use of groups in occupational therapy. Skill development in planning, leading and evaluating theory-based activity groups. Participation in and observation of the group process will occur during the class.

*Lecture-laboratory. Fall. 2 credits*

## OTMS 5008

### Introduction to Therapeutic Occupations

Principles of occupation, activity, and occupational performance, including performance areas, contexts, and components. Exploration of sociocultural variables as they influence adaptive behavior and the health-illness continuum. Skill development in administering assessments of occupational performance. Skill development in activity analysis to facilitate engagement in meaningful occupation. *Lecture-laboratory. Fall. 2 credits.*

## OTMS 5100

### Foundations of Occupational Therapy II

Analysis of principles, ethical guidelines, and theories that provide the foundations of occupational therapy practice. Analysis of theoretical, social, political, and cultural influences upon contemporary occupational therapy practice.

*Lecture-Seminar. Fall. 1 credit.*

## OTMS 5102

### Neurophysiology

Neurophysiology of motor function and posture, spatial skills, sensory systems, emotions, cognition and perception, and language. Mechanisms of neural plasticity in learning, memory, and recovery after brain injury. *Lecture. Spring. 1.5 credits.*

## OTMS 5105

### Theory and Practice I: Psychosocial

**Intervention** Introduction to the practice of occupational therapy in psychosocial dysfunction with a focus on issues in the mental health practice arena. Application of frames of reference to evaluation, treatment planning, and implementation. Skill development in case study method; group process techniques; and clinical reasoning. ("OTMS 5111 Fieldwork I: Psychosocial Intervention" must be taken concurrently. *Lecture-Laboratory-Seminar. 4 credits.*

## OTMS 5107

### Occupational Therapy in Early Intervention

This elective course provides an overview of Early Intervention, a specialized area of practice for children under 3 years of age and their families. Students analyze common issues in working with young children and families. Course material is discussed in class and in online discussion groups. *Elective seminar. Spring (when available). 0.5 credit.*



**OTMS 5108**

**Activities of Daily Living** Activity analysis, assessment, and treatment to improve performance of basic self-care skills and instrumental daily activities. Development of skill in treatment planning and environmental adaptation to enhance independent function in activities of daily living. *Lecture-Laboratory. Spring. 2 credits.*

**OTMS 5111****Fieldwork I: Psychosocial Intervention**

Clinical fieldwork in a mental-health setting. Supervised exploration of the practice of occupational therapy for a variety of psychiatric conditions. Emphasis on the development of clinical reasoning. Co-requisite: "OTMS 5105 Theory and Practice I: Psychosocial Intervention" must be taken concurrently. *Fieldwork-seminar. Spring. 2 credits.*

**OTMS 5112****Master's Project I**

Students select from a choice of faculty-generated research projects and develop an initial draft for a formal research proposal. The seminar introduces students to the components of a research proposal and provides tips for preparing effective proposals. Students begin preparation of abstract and materials for presentation to the Institutional Review Board. *Independent study and seminar. Spring. 0.5 credits.*

**OTMS 5205**

**Cognition and Perception** Theories of information processing applied to occupational therapy intervention for children and adults who demonstrate dysfunction in cognitive or perceptual function. Lab sessions allow for skill development in evaluation and treatment of clients with cognitive or perceptual impairments that impact functional performance. *Lecture-laboratory. Summer. 1.5 credits.*

**OTMS 5206**

**Community Practice I: Relationship and Assessment** Occupational therapy practice in community settings. Students identify and participate in a field practicum to learn to develop interprofessional relationships and assess community needs for occupational therapy services. *Community experience and seminar. Summer. 1 credit.*

**OTMS 5208****Designing Therapeutic Environments**

Knowledge and skill development related to assessing and adapting the environmental context to enhance posture, mobility, physical access, and participation in occupations. This includes accessible design, modification of home and work environments, seating and positioning, and wheelchair prescription and maintenance. *Lecture-Laboratory. Summer. 2.5 credits.*

**OTMS 5213****Master's Project II**

Students revise and complete Master's Project proposal, complete materials for presentation to the Institutional Review Board, and make necessary preparations to begin the project in the Fall Semester. Applied statistics lab component prepares students to use computer programs to analyze

quantitative and qualitative data. *Independent Study, Lab, and Seminar. Summer. 2 credits*

**OTMS 5215****Occupational Therapy in Early Intervention**

This elective provides the basics of the early intervention process from its historical underpinnings to practical guidelines to practice in a variety of early intervention settings. This course will include practical assignments and papers, field trips, bulletin board discussion groups, and e-mail communication. *Elective Seminar. Summer (when available). 1.5 credits*

**OTMS 5301**

**Orthotics and Prosthetics** Principles and objectives of the orthotic and prosthetic process in rehabilitation with a focus on the upper limb. Includes static and dynamic splinting, and commercial orthotic devices and a general overview of lower limb orthotics and prosthetics. Laboratory experience develops skills in the design and fabrication of splints using various materials. *Lecture-laboratory. Fall. 2 credits.*

**OTMS 5303****Theory and Practice II: Neurorehabilitation**

Theory and practice of occupational theory in the assessment, formulation, and implementation of treatment plans for adult clients who have sustained stroke and head injury, as well as those with progressive neurological disorders. Lab sessions allow for skill development in treatment approaches and clinical reasoning. OTMS 5305 Theory and Practice III: Physical Rehabilitation and Geriatrics and OTMS 5311 Fieldwork I: Adult and Geriatric Rehabilitation must be taken concurrently. *Lecture-Lab. Fall. 2 credits.*

**OTMS 5305****Theory and Practice III: Physical**

**Rehabilitation and Geriatrics** Theory and practice of occupational therapy for adult clients who participate in therapy at hospitals, rehabilitation programs, geriatric, and home care settings. Includes special problems of the geriatric client. Principles and methods of screening, assessment, clinical reasoning, and formulation and implementation of treatment plans. OTMS 5311 Fieldwork I: Adult and Geriatric Rehabilitation and OTMS 5303 Theory and Practice II: Neurorehabilitation must be taken concurrently. *Lecture-laboratory-seminar. Fall. 5 credits.*

**OTMS 5306****Community Practice II: Marketing and Resources**

Occupational therapy practice in community settings. Students participate in the field practicum selected for Community Practice I to develop skills in marketing occupational therapy services and developing resources for community programs. *Community experience and seminar. Fall. 0.5 credits.*

**OTMS 5311****Fieldwork I: Adult and Geriatric Rehabilitation**

Clinical fieldwork in a setting serving adult and/or geriatric clients. Supervised exploration of the practice of occupational therapy for adults of all ages with a variety of orthopedic, neurological, medical, and surgical conditions. Emphasis on the development of clinical reasoning. OTMS 5303 Theory and Practice II: Neurorehabilitation and OTMS 5305 Theory and Practice III: Physical Rehabilitation and Geriatrics must be taken concurrently. *Fieldwork-seminar. Fall. 2 credits.*

**OTMS 5312****Master's Project III**

Students work independently on data collection and analysis for the Master's Project, meeting regularly with an advisor. A group seminar format provides an opportunity to discuss the implementation of the project and meaning of results with faculty and peers and to discuss the work of other student researchers. *Independent study and seminar. Fall. 2 credits.*

**OTMS 5315****Topics in Early Intervention**

Topics in this elective include best practice, embedded coaching and working with families, special patient populations, assessment, and outcome development for IFSP's and Assistive Technology. This course will include an online course experience with practical assignments and papers, discussion group posts, and e-mail communication. *Elective Seminar. Fall (when available). 1.5 credits*

**OTMS 5003****Assistive Technology**

Principles of assistive technology in occupational therapy practice. Opportunities to practice basic setup and application of computer software and other technological systems used in occupational therapy practice. *Lecture-laboratory. Spring. 2 credits.*

**OTMS 5401****Administration and Professional Issues**

Theories, concepts, and principles of management, supervision, professional ethics, and other issues relevant to practice in occupational therapy. The relationship of health-care systems, organizational structure, financing, and quality assurance to occupational therapy practice. Managerial, supervisory, and consultant roles for OTRs and certified occupational therapy assistants (COTAs) in facility-based, private practice, and school-based occupational therapy practice. *Lecture. Spring. 2.5 credits.*

**OTMS 5406**

**Community Practice III: Service** Occupational therapy practice in community settings. Based on previous work in Community Practice I and II, students provide goal-directed interventions at their assigned practicum sites and share their experiences in a course seminar. *Community experience, lecture, and seminar. Spring. 1 credit.*



**OTMS-5407****Theory and Practice IV: Developmental**

**Assessment** Occupational therapy observation, assessment, measures, and collaboration in evaluation processes from infancy to adolescence. This course presents developmental milestones for children aged birth to adolescence in the context of occupational performance. Course material will emphasize principles and methods of evaluation to include clinical reasoning and critical thinking skills. OTMS-5410 Theory & Practice V: Intervention with Children and OTMS-5411 Fieldwork I: Pediatrics must be taken concurrently.

*Lecture –laboratory. Spring. 3 credits.*

**OTMS-5409****Theory and Practice IV: Young Child**

Designed to provide an overview of occupational therapy in pediatrics, this course emphasizes the young child from birth through preschool and their families in context of environment and culture. This course presents theories, models of practice, and therapeutic approaches in early intervention and preschool environments within the context of state and federal laws in the context of occupational performance. This course covers occupational therapy observation, assessment measures and collaboration in evaluation processes, intervention planning and implementation, including intervention techniques, from a variety of theoretical perspective explored from infancy to five years. Course material will emphasize principles and methods of evaluation to include clinical reasoning and critical thinking skills, and incorporate evidence-based practices with young children. OTMS-5413 Theory & Practice V: School Age to Young Adult and OTMS-5411 Fieldwork I: Pediatrics must be taken concurrently.

*Lecture –laboratory. Spring. 3 credits.*

**OTMS-5413****Theory and Practice V: School Age to Young Adult**

Designed to provide an overview of occupational therapy in pediatrics, this course emphasizes the child from kindergarten to high school (including transitions to vocation and post-secondary education), and their family in context of environment and culture. This course will also serve as a basis for pediatric acute care, pediatric home care, school-based practice as well as specialized services including the use of assistive technology, telerehabilitation and emerging areas of practice. Course material will emphasize principles and methods of evaluation and intervention to include clinical reasoning and critical thinking skills, formulation and implementation of intervention plans and incorporate evidenced based practices with school-aged children. OTMS-5409 Theory & Practice IV: Young Children OTMS-5411 and Fieldwork I: Pediatrics must be taken concurrently.

*Lecture –lab- oratory. Spring. 3 credits*

**OTMS 5411****Fieldwork I: Pediatrics**

Clinical fieldwork in a pediatric setting. Supervised exploration of the practice of occupational therapy for a variety of pediatric conditions. Emphasis on the development of clinical reasoning. OTMS 5409 Theory and Practice IV: Young Children and OTMS 5413 Theory and Practice V: School Age to Young Adult must be taken concurrently. *Fieldwork-Seminar. Spring. 2 credits.*

**OTMS 5412****Master's Project IV**

Students work independently on writing research reports in a format suitable for publication and preparing a poster session for presentation to peers and faculty. The seminar presents basic principles of professional writing and presentation. *Independent study and seminar. Spring. 1 credit.*

**OTMS 5612****Independent Study in Occupational Therapy**

This elective course is designed to provide a learning opportunity for a student to expand knowledge within a specific area of OT practice. The student and assigned instructor work collaboratively to design the course objectives and experiences. Requires permission from the Program Chair. *Elective. Any semester. 1-2.5 credits (Pass/Fail).*

**OTMS 6011****Fieldwork II: Affiliation I**

Full-time clinical fieldwork of three months' duration. Implementation of knowledge, skills, values, and ethics within an occupational therapy practice setting. Refinement of specific practice skills as used in the assigned setting. Application of clinical reasoning skills to individualized client assessment, treatment planning, and treatment. Utilization of the clinical supervision process for professional growth. Collaboration with clinical educators on research and clinical projects of mutual interest. Development of professional leadership skills. *Fieldwork-seminar. Summer. 5 credits.*

**OTMS 6111****Fieldwork II: Affiliation II**

Full-time clinical fieldwork of three months' duration. Implementation of knowledge, skills, values, and ethics within an occupational therapy practice setting. Refinement of specific practice skills as used in the assigned setting. Application of clinical reasoning skills to individualized client assessment, treatment planning, and treatment. Utilization of the clinical supervision process for professional growth. Collaboration with clinical educators on research and clinical projects of mutual interest. Development of professional leadership skills. *Fieldwork-seminar. Fall. 5 credits.*

**OTMS 6211**

**Fieldwork II: Specialty Elective** Full-time clinical fieldwork of six- to twelve weeks duration in a setting that differs from the student's prior Fieldwork II experiences. *Fieldwork-seminar. Spring. 2–5 credits.*

**Interprofessional Courses**

See p. 41 for course descriptions.

**ANAT 5001****Human Gross Anatomy****ANAT 5101****Human Neuroanatomy****INDI 5002****Kinesiology****INDI 5100****Research Methods****MSCI 5211****Medical Sciences**

## **PHYSICAL THERAPY Combined Bachelor of Science in Health Sciences/Doctorate in Physical Therapy**

### **Chairperson and Associate Professor**

*Joanne S. Katz*

### **Associate Professor Emeritus**

*Teresa M. Miller*

### **Assistant Professor**

*Dennis Torre*

*Farhad Haeri*

*Loraine Antoine*

### **Clinical Assistant Professor**

*Toni A. Zuccaro*

*Saren Abearn*

### **Clinical Instructor**

*Roslyn Sofer*

### **Adjunct and Clinical Faculty,**

*Zarah Anvery, Faye Bronstein, Antonette S. Flecha,*

*Henry Hanif, Thomas Holland, Andrew Moscatiello,*

*Laurie Seckel, David Sofer, Afriqiyah Woods*

Physical therapists are involved in the restoration, maintenance, and promotion of optimal physical function. Their services prevent, minimize, or eliminate impairments of body functions and structures, activity limitations, and participation restrictions. Physical therapists work to diagnose and manage movement dysfunction; restore, maintain, and promote optimal physical function; promote wellness and fitness; and prevent the onset and progression of impairments, functional limitations, and disabilities due to various diseases, injuries, conditions, or disorders. They perform the examination, evaluation, and the establishment of a diagnosis and a prognosis in order to determine the most appropriate intervention(s) for patients/clients with neuromuscular, musculoskeletal, cardiovascular/pulmonary, and integumentary disorders.\*

Physical therapist intervention includes patient/client instruction, airway clearance techniques, assistive technology, biophysical agents, functional training, integumentary repair and protection, manual therapy techniques, motor function training, and therapeutic exercise. These interventions are chosen on the basis of patient examination and re-examination findings and the goals and expected outcomes of a particular patient/client diagnostic group.\*

\*From *Guide to Physical Therapist Practice, Version 1.1*, American Physical Therapy Association.

## **CAREER OPPORTUNITIES**

There is a high demand for physical therapists in the workforce. According to the Bureau of Labor Statistics, the employment of physical therapists is expected to grow by 18 percent from 2019 through 2029. Physical therapists work in a variety of primary, secondary, and tertiary care settings. Although many practices in hospitals, physical therapists also work in private practice, schools, wellness and prevention settings, home health, hospice, industry, government settings, and research centers. Physical therapists

today earn the Doctor of Physical

Therapy (DPT) degree and may specialize in orthopedics, neurology, pediatrics, geriatrics, cardiovascular and pulmonary physical therapy, sports physical therapy, women's health, or clinical electrophysiology.

## **PHYSICAL THERAPY PROGRAM: COMBINED BS/ DPT CURRICULUM**

The physical therapy program at SUNY Downstate is a long-standing accredited program, which has been in existence since 1966 and graduated its first class in 1969. In 2006, the BS/ DPT program was awarded approval by the Board of Trustees of the New York State Education Department. In April 2013, it was granted a 10-year full re-accreditation status by the Commission of Accreditation in Physical Therapy Education (CAPTE) to offer a post-baccalaureate entry-level physical therapy program. The physical therapy program is expecting its next on-site accreditation visit in spring 2023.

## **ADMISSION REQUIREMENTS**

Please refer to pg. 10-16 of this Bulletin. Check for the latest requirements and apply online through the Admissions section of Downstate's website:

<https://www.downstate.edu/education-training/school-of-health-professions/admissions/physical-therapy/index.html>

## **THE BS/DPT DEGREE PROGRAM**

The combined BS/DPT curriculum requires the completion of 80 credits of pre-professional (prerequisite) courses and 132.5 credits of physical therapy professional courses. Of the 132.5 credits, 42 credits are at the undergraduate level and the remaining 90.5 credits are at the doctoral level.

The program starts in June each year and is divided into nine semesters. During the first year, students concentrate on the foundational sciences, clinical sciences, research methodology, psychosocial aspects of patient care, ethics in clinical practice, and explore the basic concepts of education as they relate to the profession. In the second year, students take Introduction to Clinical Practice, engage in integrated clinical education experiences (ICE), interprofessional experiences (IPE), begin their first clinical internship, focus on developing their knowledge and skills in the theory and practice of physical therapy, and begin to implement their group research/capstone project.

Understanding of the psychosocial and cultural issues that affect patients and their families, and the role of the physical therapist in helping patients function in a variety of environments (home, work, school) is stressed in all professional courses.

In the third year, students continue with courses focused on the theory and practice of physical therapy, complete and present their group research/ capstone project, and participate in more advanced topics in professional practice such as differential diagnosis. They engage in extensive clinical education and grand rounds courses, which enable them to integrate theoretical and practical skills, develop self-confidence, and become aware

of their responsibilities as members of the health team. Students are supervised by experienced clinicians who will meticulously evaluate their clinical performance in an effort to maximize their overall effectiveness. This curriculum helps students develop the critical thinking and clinical decision-making skills warranted of graduates of a Doctor of Physical Therapy degree program.

In the various professional courses, students make class presentations and/ or provide critical analyses of journal articles and case studies. They will learn how to engage in evidence-based practice, using the highest form of evidence, the randomized controlled clinical trial, upon which to base their clinical decisions. Students also learn in an interprofessional environment, taking various courses with physician assistants, occupational therapists, and medical students. They also participate in college-wide interprofessional activities and learn from a variety of professionals in the clinical education setting. Students complete a research/capstone project with a small group of 2-4 students under the guidance of a faculty mentor. They are required to present their research/ capstone project in a platform presentation at a center-wide colloquium. They may also submit an abstract of their project for presentation at a state-wide or nationwide physical therapy conference.

## **CLINICAL EDUCATION**

Over 100 physical therapy centers representing a variety of practice settings are affiliated with SUNY Downstate's physical therapy program. The majority of these clinical centers are located in the New York metropolitan area. However, to accommodate the interests of students who would like to explore other settings and cultures, clinical affiliation sites outside the tri-state area and abroad are available. During Introduction to Clinical Practice in the second year, students are required to complete a placement request form indicating their preferences for clinical sites. Student needs and assignment requests are taken into account and matched with available sites whenever possible.

The clinical education program has been developed to reflect the importance of professional growth and good patient/client care. In the curriculum, clinical education is integrated with the progressively increasing levels of expected student performances in various domains of physical therapy clinical practice. The objectives of each clinical education course are derived from the knowledge and skills developed in the previously completed academic components of the curriculum. Students complete a total of 39 credits in full-time Clinical Education courses.

Clinical Education I is the students' first experience under the supervision of clinical faculty and their first full-time clinical educational experience. It is an eight-week, full-time clinical educational experience that occurs during the second year in the program. This spring semester course emphasizes appropriate professional behavior, communication skills, and the performance of essential physical therapy examination, evaluation, diagnosis, prognosis, plan of care, and intervention skills. Students are assigned to hospitals, ambulatory care centers, geriatric facilities, or outpatient practices. Following

Clinical Education I, the students learn more advanced theories and skills. Problem-solving sessions and discussions give the students an opportunity to build on experiences from Clinical Education I.

Clinical Education II is a 9-week, full-time clinical experience that is scheduled for the summer semester of the third year. This course will foster the development of more advanced skills inpatient/client management. The goal is for students to continue to integrate their academic knowledge with clinical skills and experiences and to continue to develop as doctoral-prepared practitioners. By the time the students engage in Clinical Education II, they have successfully completed course work in all foundational sciences, as well as physical therapy professional courses in all major areas of physical therapy practice, including musculoskeletal, neuromuscular, cardiovascular/pulmonary, and integumentary areas. The students are assigned to a wide variety of clinical settings, including acute care, adult rehabilitation, orthopedic outpatient, and cardiovascular/pulmonary settings.

Clinical Education III is a 10-week, full-time clinical educational experience that occurs in the fall semester of the third year, following most of the academic course work. This course will foster the development of entry-level skills inpatient/client management and continue the integration of academic knowledge with clinical skills and experience as students continue to develop to become doctoral-prepared practitioners. They will be assigned to the broadest range of clinical educational experiences available, including specialty areas, such as pediatrics, geriatrics, burn rehabilitation, performing arts physical therapy, and home care.

Clinical Education IV is a 12-week, full-time clinical educational experience that occurs in the spring semester of the third year. This course fosters the development of more advanced patient/client management skills. The ultimate goal is for the student to become a competent, doctoral-prepared, entry-level physical therapist who utilizes clinical reasoning and clinical decision-making skills.

Clinical Education IV is the most advanced course in the clinical education sequence. Following Clinical Education III, the student returns to the classroom to integrate all academic knowledge learned in the program with the clinical educational experiences through Differential Diagnosis. The student then returns to the clinic in Clinical Education IV in a culminating clinical educational experience. Before entering this experience, the student has satisfactorily completed all coursework in the foundational sciences, clinical sciences, and professional courses. Learning experiences are planned with the student to allow him/her to demonstrate increasing ability in the skills of examination, evaluation, diagnosis, prognosis and intervention, and flexibility in administering these skills in accordance with the patient's/client's medical, physical, and psycho-social profile; the patient's/client's environment; and objectives of the patient's/client's total program.

## ACCREDITATION, CREDENTIALING, AND LICENSURE

The Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association (APTA), located at 1111 North Fairfax Street, Alexandria, VA 22314-1488, accredits the program. The program is registered by the New York State Education Department. Graduates are eligible to sit for the National Physical Therapy Examination (NPTE) administered by the Federation of State Boards of Physical Therapy (FSBPT). All 50 states and three additional jurisdictions use the NPTE as one factor in the licensure of physical therapists. To be licensed as a physical therapist in New York State, the individual must be of good moral character, at least 18 years of age, meet education and examination requirements, and file an application with the New York State Education Department Office of the Professions.

## GRADUATION HONORS

*Samuel B. Feitelberg Award for Academic and Clinical Excellence*—presented to a graduating student for outstanding achievement.

*APTA New York Student Participation Award*—presented to a graduating student for leadership qualities, initiative, involvement in professional or community activities, and demonstration of humanitarian concerns.

*Brooklyn-Staten Island District, APTA New York Student Participation Award*—presented to a graduating student for leadership qualities, initiative, and involvement in professional activities.

*Program Research Award*—presented to the graduating students with the best group research/capstone project.

*Alumnae Award*—presented to a graduating student for leadership qualities, initiative, and involvement in professional or community activities.

*Brooklyn Free Clinic Award*—presented to a graduating student or students for outstanding volunteer physical therapy service to the Brooklyn Free Clinic (BFC). The student must have been registered in the SOHP BFC elective course for at least two consecutive semesters to be considered for this award.

*Physical Therapy Initiative Award*—presented to a graduating student for achievement, initiative, and professional commitment.

*Student Leadership Award*—the student who receives this award is chosen by their classmates. Students will choose a classmate who has demonstrated strong leadership qualities and involvement in campus and community activities

## COURSE DESCRIPTIONS-BS IN HEALTH SCIENCES

The BS/DPT curriculum in the physical therapy program at SUNY Downstate consists of 132.5 credits of physical therapy professional courses. The 132.5 credits consist of 42 credits at the undergraduate level and 90.5 credits at the graduate level. Interprofessional courses are described on pages 41 of this Bulletin. The following are descriptions of the Undergraduate Physical Therapy professional courses.

## PHTH 3205

### Pathology

Basic disease processes and functional impairments are studied in correlation with their anatomical substrates; major emphasis is on the Cardiovascular/ pulmonary, neuromuscular, and musculoskeletal systems. This is a foundational science course, which builds upon the previous study of anatomy and physiology and concurrent knowledge being learned in the Medical Sciences course. Pathology provides an important background for study of the clinical sciences and physical therapy professional courses. Students learn through interactive lectures and textbook readings. *Lecture. Spring. 2 credits.*

## PHTH 3206

### Musculoskeletal Physical Therapy I

This course will develop the student's clinical decision-making skills and ability to appropriately screen, examine, evaluate, develop, and implement physical therapy plans of care for people who have musculoskeletal dysfunctions. In this lecture/laboratory course, the student will critically review the theory and practice of musculoskeletal physical therapy with emphasis on methods of examination, evaluation, and manual therapy interventions for the extremities. The student will also have an opportunity to observe musculoskeletal examination and intervention in a physical therapy clinic. *Lecture/laboratory/Clinical Preceptorship. Spring. 3 credits*

## PHTH 3207

### Principles of Education in Physical Therapy

This course covers the study and application of teaching techniques as applied to the practice of physical therapy. There will be opportunities to design home programs and to discuss issues of patient adherence to physical therapy programs. Students will also have the opportunity to develop skills in preparing and presenting teaching modules to various target audiences. The clinical education of the physical therapy student will be addressed, including preparation for their future role as a clinical instructor and challenges they might face in the clinical or workplace environment. *Discussion/laboratory. Spring. 2 credits.*

## PHTH 3201

### Professional Development I

This course covers the psychosocial manifestations of disability, issues related to professionalism, ethics, patient rights, and physical therapy practice. The following topics will be explored: history and development of the profession, legal and ethical aspects of physical therapy practice, The Guide to Physical Therapy Practice, professional and ethical patient care responsibilities, interpersonal communication, the Americans with Disability Act, and issues surrounding people with disabilities. In an off-campus assignment, students will measure the accessibility of a public facility in NYC and compare their findings to ADA guidelines. *Lecture/discussion. Summer. 1.5 credits.*



**PHTH 3304****Physical Therapy Examination I**

This laboratory course is taught concurrently with Kinesiology lecture, and is designed to provide students with an opportunity to integrate the lecture's theoretical concepts with "hands-on" practical application of musculoskeletal and neuromuscular tests and measures that form the foundation of physical therapy examination. This course covers specific musculoskeletal and neuromuscular tests and measures including goniometry, manual muscle testing, sensory testing, deep tendon reflex testing, posture evaluation, gait analysis, and select musculoskeletal special tests. Issues of reliability, validity, sensitivity, and specificity will be addressed with all examination techniques. *Laboratory. Fall. 1.5 credits.*

**PHTH 3302****Patient/Client Management I**

This course will introduce the key concepts needed for patient/client interactions for the practicing clinician, including documentation and patient-clinician communication. In addition, students will investigate the best evidence for complementary and integrative therapeutic interventions and the role of the physical therapist in administering and supervising hands-on interventions. Laboratory experiences focus on the process of using the hands-on intervention of therapeutic touch (i.e. massage) to help facilitate the restoration of function and the reduction of pain. Students learn to design goals and plans of care and select and administer hands-on therapies based upon current evidence, the needs of the individual and the results of patient/client examination and evaluation. Conceptual frameworks for clinical decision-making models are discussed along with the need for appropriate and thorough documentation. *Lecture/laboratory/discussion. Fall. 2.5 credits.*

**PHTH 3401****Physical Therapy Examination II**

This course is designed to integrate the neuromuscular tests and measures covered in Physical Therapy Examination I into a patient evaluation that leads to a diagnosis based on subjective and objective evidence. The elimination of biases and errors in the clinical decision-making process and the role of the examiner as an instrument in the physical therapy patient examination process will be covered, with an emphasis on performing the subjective examination. This course will also provide an introduction to the differential diagnosis of sensory complaints by integrating the "MRS" process into the objective examination. Concepts such as cerebral perfusion pressure, mean arterial pressure, intracranial pressure, cerebral autoregulation and the pathophysiology underlying the onset of upper motor signs in traumatic brain injury will also be covered. This course will also cover specific neuromuscular tests and measures including, but not limited to, cutaneous sensory testing, the King-Devick Test, Sensory Organization Testing, the Berg Balance Test, the Multidirectional Reach Test, the Timed Up and Go Test, the Dizziness Handicap Inventory, the Standards for Classification of Neurologic Injury (ASIA) and the Glasgow Coma Scale. *Lecture/laboratory/discussion. Spring. 1 credit.*

**PHTH 3402****Patient/Client Management II**

In this course, students discuss, identify, select, and implement basic patient care strategies and techniques related to range of motion, transfers, ambulation with assistive devices, strength, endurance, plyometrics and flexibility training, basic care skills in acute care settings, and use of therapeutic exercise equipment. Students critically evaluate and practice ways to maximize the relationship between the patient/client and therapist, educate others and assure efficient posture and body mechanics/ergonomics of both parties. Students apply the patient/client management model, preferred practice patterns, and the International Classification of Functioning, Disability, and Health (ICF) as part of clinical decision-making in this basic skills course. This course provides a foundation for the learning of therapeutic exercise, which will be further integrated in the musculoskeletal physical therapy courses. The learning format of this class is lecture, laboratory, clinical observation, role-playing, case-based learning, and discussion.

*Lecture/laboratory/discussion. Fall. 3 credits.*

**COURSE DESCRIPTIONS****– DOCTOR OF PHYSICAL THERAPY (DPT)**

The BS/DPT curriculum in the physical therapy program at SUNY Downstate consists of 132.5 credits of physical therapy professional courses. The 132.5 credits consist of 42 credits at the undergraduate level and 90.5 credits at the graduate level. Interprofessional courses are described on page 41 of this Bulletin.

**PSYH 5111****Psychiatry**

The course will expose the physical therapist student to behavioral and social abnormalities commonly seen in hospital/clinical practice. The course will cover a range of topics that may have an impact on the patient's mental health. They will learn the various DSM-V criteria generated by the American Psychiatric Association required for specific mental health diagnoses. The students will be taught to utilize and interpret the pertinent information as provided from patients to assist with the formation of the appropriate diagnosis.

This course is designed to introduce physical therapist students to the concepts of psychiatry as they relate to mental health and mental illness in the Primary Care setting. Utilizing didactic instruction, role-playing, evidence-based research, problem-based learning, and group discussions, students explore the recognition, assessment, treatment, and referral of the patient who is psychologically impaired and the mentally ill as encountered in the primary care and emergency department settings. Students are introduced to techniques utilized in performing a psychiatric interview and formulating appropriate treatment and management plans. As part of primary care practice, techniques for patient education, prevention, and early detection of psychiatric illness are highlighted. *Lecture. Spring. 2 credits.*

**PTDP 6110****Capstone Project I:**

This course provides a forum for students to develop an initial draft of the introduction section of a formal proposal for their final capstone project. Students working in small groups select from a choice of faculty-generated projects. Students will identify a conceptual framework, problem statement, and purpose for their proposed project, and provide a preliminary review of relevant literature to support the structural framework for their final project. Students submit the written capstone proposal at the end of the semester. Examples of projects include, but are not limited to:

1. Research study
  2. Disability awareness education module for a specified audience
  3. Development of an evidence-based home exercise program for a specific diagnosis
  4. Development of an exercise video for a specified audience
  5. Development of an educational video for a specified audience
  6. Examining different modes of learning in physical therapy education
  7. Pilot testing examination and intervention equipment used in PT lab courses
- Seminar/Independent Study. Spring. 1 credit.*

**PTDP 6101****Clinical Education I**

This is the first course in the clinical education sequence. The clinical education experience is planned by the Director of Clinical Education (DCE) and faculty to augment the individual learning needs and goals of the student. Students are placed in one clinical site for an eight-week clinical educational experience. *Clinical experience. Spring. 8 credits.*

**PTDP 6113****Grand Rounds I**

This is the first course in the Grand Rounds sequence. This seminar will focus on exploring the expectations of physical therapy students in a clinical setting. Issues related to the therapist-patient relationship and student-clinical instructor (CI) relationship will be examined. Issues regarding professional behavior, dealing with clinical problems, and the grading scheme used by the CI will be discussed. Students will learn how to effectively approach the clinical educational experience through discussion, role-play, and selected readings. Following the Clinical Education I course, students will continue with Grand Rounds I to discuss and provide feedback regarding their clinical educational experience. They will also present a 20-minute case report concerning one relevant case for physical therapy based on Clinical Education I. Physical therapy faculty are invited to attend and participate in Grand Rounds I. Furthermore, Grand Rounds I will be open to members of the Downstate community and the program's clinical sites. *Seminar. Spring. 0.5 credit.*

**PTDP 6105****Motor Control and Motor Learning I**

In this course students will discuss and compare theories of motor control of movement & motor

learning, issues related to motor skill classification & abilities, performance measurement, sensory input & vision, attention & memory, assessing & defining learning, stages & transfer of learning, and instruction & augmented feedback as well as practice conditions & schedules to facilitate motor learning. Students will evaluate clinical and scientific evidence supporting the different theories of motor control and motor learning. Students will also critically evaluate evidence for development and control of posture; mobility; and reach, grasp, and manipulation activities. Influences of action and perception of the individual on motor control and motor learning will be discussed; and the effects of constraints of the individual, task and environment on motor outcomes will be appraised. *Lecture/ discussion. Summer. 2 credits.*

#### **PTDP 6107**

##### **Clinical Electrophysiology**

This course is designed to provide students with the underlying theories, scientific bases, biological effects, and clinical applications that support the use of electrotherapeutic modalities. The course includes a lecture component during which theoretical processes will be presented and a supervised laboratory component for practice in the selection, rationale for use, effects, indications, and contraindications for the application of the various electrotherapeutic modalities. Students will be given basic information on electro diagnostic testing; however, the course will emphasize the examination, evaluation and indications for, and the application of, electrotherapy. Students will learn the use of therapeutic electricity for muscle strengthening, pain management, and enhancement of circulation and wound and bone healing. *Lecture/ laboratory. Summer. 2.5 credits.*

#### **PTDP 6108**

##### **Patient/Client Management III: Physical Agents**

This course focuses on critically analyzing the thermal and mechanical agents that are used by physical therapists. The physical principles and physiological effects of heat, cold, water, light, traction, and ultrasound are presented. Clinical decision-making in the selection, application and evaluation of thermal and mechanical modalities is discussed and practiced within the context of a comprehensive plan of care to address impairments and functional limitations. The safe and effective practical applications of the modalities are part of comprehensive laboratory sessions. *Lecture/ laboratory. Summer. 2 credits.*

#### **PTDP 6109**

##### **Introduction to Clinical Practice**

The classroom portion of the course prepares students to enter the clinical environment by providing them with a short review of major coursework in musculoskeletal, neuromuscular, basic examination, treatment and interviewing skills. Students will also be introduced to Case Report Methodology, introduced to journaling with an awareness of self, and complete the training for the Web Clinical Performance Instrument (CPI) with knowledge expectations of the four Clinical Education courses.

Students will utilize clinical videos to reinforce

clinical concepts learned in the academic setting. Students will be required to document observations in the clinical video to assist in preparing for Clinical Education courses. *Clinical Preparedness/Lecture. Fall. 2 credits.*

#### **PTDP 6210**

##### **Capstone Project II**

This is a continuation of Capstone Project I. It is a preparatory course that may include the beginning of the data collection phase of the students' final capstone project. While working closely with a faculty mentor, students examine ethics in research and complete the online Collaborative IRB Training Initiative training program and submit a mock IRB application and informed consent form to their capstone project mentor. *Seminar/Independent Study. Summer. 1 credit.*

#### **PTDP 6201**

##### **Clinical Education II**

This course is a continuation of the clinical education sequence (II of I-IV). This is a 9-week, full-time clinical educational experience that is scheduled for the summer semester of the third year. This course will cultivate the development of advanced skills in patient/ client management. Students will be assigned to clinical settings that are appropriate for their knowledge base at that juncture of the program. Clinical sites include, but are not limited to, adult rehabilitation, acute care, orthopedic outpatient, and cardiovascular/pulmonary settings. *Clinical experience. Summer. 9 credits.*

#### **PTDP 6213**

##### **Grand Rounds II**

This is the second course in the Grand Rounds sequence. The DCE will coordinate a general Grand Rounds, in which each student will be required to present a 10-minute case report concerning one relevant case for physical therapy based on Clinical Education II. Physical therapy faculty are invited to attend and participate in Grand Rounds. Furthermore, Grand Rounds will be open to members of the Downstate community and the program's clinical sites.

This seminar will focus on exploring the expectations of physical therapy students in a clinical setting. Issues related to the therapist-patient/client relationship and student-clinical instructor relationship will be discussed. Issues regarding professional behavior, dealing with clinical problems, and the grading scheme used by the CI will be emphasized. *Seminar. Summer. 0.5 credit.*

#### **PTDP 6204**

##### **Musculoskeletal Physical Therapy II**

This course will develop the student's ability to appropriately examine, evaluate and apply physical therapy interventions for people who have neuromusculoskeletal dysfunctions of the extremities and vertebral column. *Lecture/discussion/ laboratory. Fall. 5 credits.*

#### **PTDP 6205**

##### **Motor Control and Motor Learning II**

This course is a continuation of Motor Control and Motor Learning I in which students compare and

contrast different therapeutic models related to atypical human movement. Students design, implement, and modify therapeutic exercise and movement intervention plans based upon examination, evaluation, and diagnosis of impairments and functional limitations. Evidence for the various therapeutic exercise models will be evaluated. The learning format of this class is lecture, laboratory, clinical observation, role-playing, case-based learning, and discussion. *Lecture/ discussion/ laboratory. Fall. 4 credits.*

#### **PTDP 6206**

##### **Cardiovascular/Pulmonary Physical Therapy**

This course covers screening, examination, differential diagnosis, and therapeutic interventions specific to the cardiac, vascular, and pulmonary systems. An emphasis will be placed on impairments related to primary and secondary dysfunction of the cardiac and ventilatory pumps. Topics include cardiovascular and pulmonary rehabilitation, wellness, and preventative care for acute and chronic conditions across the lifespan. Issues of reliability, validity, sensitivity, and predictability of screening and examination techniques will be addressed. Laboratory assignments emphasize examination and designing and implementing interventions for patients/ clients with cardiovascular/pulmonary impairments. *Lecture/ laboratory/discussion. Summer. 5 credits.*

#### **PTDP 6208**

##### **Neuromuscular Physical Therapy**

This course is a continuation of Motor Control and Motor Learning I and II, in which students integrate screening, examination, evaluation, physical therapy diagnosis, prognosis, plan of care, intervention, reassessment, and discharge planning into the total care of patients/clients. In this course, students apply the Nagi Model of Disablement, the patient/ client management model, the ICF Model and preferred practice patterns to the physical therapy management of patients/ clients with neuromuscular disorders through discussion, role modeling, and case-based learning. Students are guided through problem-solving activities to design, supervise, and implement physical therapy intervention based upon the needs of the individual with complex neurological and multisystem impairments. Students integrate the needs of the patient, family, caregivers, and society into the practice of physical therapy. *Lecture/ laboratory/ discussion. Spring. 4 credits.*

#### **PTDP 6310**

##### **Capstone Project III**

This is a continuation of Capstone Project II. Under the guidance of a faculty mentor, students implement the capstone project proposed in Capstone Project I and II by collecting quantitative and/or qualitative information or developing the product proposed in the earlier courses. This data collection process or product development will lead toward the completion of their capstone project. *Independent Study. Fall 1 credit.*

#### **PTDP 6301**

##### **Clinical Education III**

This course is a continuation of the clinical education sequence (III of I-IV). This is a 10-week,

full-time clinical educational experience that is scheduled for the fall semester of the third year. This course will cultivate the development of entry-level skills inpatient/client management and continue the integration of academic knowledge with clinical decision-making and critical thinking skills as students continue to develop to become doctoral-prepared practitioners. Students will be assigned to clinical settings appropriate with their knowledge base at that juncture of the program. Clinical sites may include specialty areas such as pediatrics, geriatrics, burn rehabilitation, performing arts physical therapy, and home care settings. *Clinical experience. Fall. 10 credits.*

#### **PTDP 6313**

##### **Grand Rounds III**

This is the third course in the grand rounds sequence. The DCE will coordinate a general Grand Rounds, in which each student will be required to present a 15-minute case report (5 minute for questioning, 20 minutes total) concerning one relevant case for physical therapy based on Clinical Education III. Physical therapy faculty are invited to attend and participate in Grand Rounds III. Furthermore, Grand Rounds III will be open to members of the Downstate community and the program's clinical sites. This seminar will focus on exploring the expectations of physical therapy students in a clinical setting. Issues related to the therapist-patient/client relationship and student-clinical instructor relationship will be discussed. Issues regarding professional behavior, dealing with clinical problems, and the grading scheme used by the CI will be emphasized. *Seminar. Fall. 0.5 credit.*

#### **PTDP 6304**

##### **Professional Development II**

In this course students will examine both accepted principles of medical ethics and ethics in the profession of physical therapy. Legal and established professional standards will be identified. Students will address issues related to the forces that shape ethical development such as social, cultural, and historical influences. Students will learn to analyze ethical dilemmas and develop ethical reasoning in pursuit of appropriate action. The learning format of this class is lecture and discussion based on assigned readings and case studies. *Lecture/discussion. Fall. 1 credit.*

#### **PTDP 6305**

##### **Preventative Care and Health and Wellness**

This course will provide an overview of the concepts of health promotion and wellness and is directed towards the prevention of primary and secondary impairments, functional limitations, and disabilities of individuals within communities. The social determinants of health will be explored and theories affecting wellness behaviors introduced. The course will entail the critical analysis and design of typical intervention sites as well as a framework for implementing effective programs. The format of teaching will include lecture, small-group discussion, peer instruction and lab. *Lecture/discussion/laboratory. Summer. 1 credit.*

#### **PTDP 6306**

##### **Pediatric Physical Therapy**

This course focuses on the physical therapy

management of neuromuscular, musculoskeletal, and pulmonary impairments and selected medical diagnoses in pediatric patients/clients. Pediatric Physical Therapy places emphasis on developmental disabilities.

As a continuation of the Pediatrics Module of Medical Sciences, it offers a specific application and synthesis of earlier knowledge specifically related to the pediatric population. The major theories of physical therapy patient/client management for children with developmental and acquired disabilities are discussed. Classroom instruction includes interactive lectures discussions, and laboratory sessions with an emphasis on problem-based learning, handling and facilitation techniques, baby observation, and therapeutic exercise. Pediatric clinical preceptorship experiences are also included. *Lecture/discussion/laboratory. Fall. 3 credits.*

#### **PTDP 6307**

##### **Radiology**

The purpose of this course is to provide the student with the knowledge necessary to visually comprehend plain radiographs and to integrate radiologic assessment into the physical therapy decision making process. The principles of radiodensity with respect to human tissue, contrast methods, effect of projection angle, correct viewing methods, fracture assessment and perception of the third dimension will be discussed to provide the basis for radiographic assessment of the axial and appendicular skeleton. This course will also cover the role of the ACR Appropriateness Criteria in the diagnostic imaging decision making process, and the capacity of plain radiographs, contrast radiography, CT, and MRI to define different pathologies. *Lecture/discussion. Spring. 1 credit.*

#### **PTDP 6308**

##### **Integumentary Physical Therapy: Prosthetics and Orthotics**

This course covers the pathomechanics, biomechanics, evaluation and prescription of prosthetic and orthotic devices, as well as the examination and intervention of individuals with wounds, amputations, and peripheral vascular compromise. The use of sterile technique, hydrotherapy, and the principles of wound care are included. The course will be in the form of lecture, discussion, laboratory, and demonstration sessions in order to prepare the student for working with individuals with peripheral vascular compromise, wounds, limb amputations, and prescription prosthetics and orthotics in the clinical setting. *Lecture/laboratory/discussion. Fall. 4 credits.*

#### **PTDP 6311**

##### **Administration and Supervision in Physical Therapy**

This course is designed to provide information and develop skills to manage an organized physical therapy service. There is an emphasis on effective management principles, including organizational structure, human resource management, fiscal planning, department design, continuous quality improvement, and risk management. The course will also describe the external environment of healthcare delivery, such as regulatory requirements, professional ethics, and medical-legal issues.

The purpose of the doctoral program in physical therapy is to prepare professionally competent practitioners capable of performing comprehensive physical therapy differential diagnosis, intervention, and clinical research. Graduates of our DPT curriculum will provide competent and thorough physical therapy services to a diverse population of clients based on available evidence-based practice. This will include patients with musculoskeletal, neuromuscular, integumentary, and/or cardiopulmonary conditions as well as health promotional and wellness services to the general population. This required course provides a foundation that is designed to provide the student with the skills and knowledge necessary to manage a physical therapy service. This course is 100% lecture. *Lecture/discussion. Spring. 2 credits.*

#### **PTDP 6410**

##### **Capstone Project IV**

This is a continuation of Capstone Project III. It is the final course in the capstone project series, which leads toward the completion of the project under the guidance of a faculty mentor. Students will complete their capstone project and present it at a scientific forum to be arranged by the Physical Therapy Department. Students will submit a final manuscript detailing the project. Students may also submit their abstracts to a professional association for presentation. Students will work closely with their faculty mentor to complete the activities required for this course. *Independent Study. Spring. 1 credit.*

#### **PTDP 6401**

##### **Clinical Education IV**

This course is the most advanced course of the clinical education sequence (I-IV). This is a 12-week, full-time clinical educational experience that is scheduled for the spring semester of the third year. The student, before entering this course, has satisfactorily completed all coursework in the program. The ultimate goal is for the student to become a competent, doctoral-prepared physical therapist with entry-level skills in inpatient/client management and integration academic knowledge with clinical decision-making and critical-thinking skills. Students will be assigned to all clinical settings that are available to the program and will be expected to exhibit the skills and abilities of an entry-level practitioner by the end of this course. Clinical sites may include specialty areas such as pediatrics, geriatrics, burn rehabilitation, performing arts physical therapy, and home-care settings. *Clinical experience. Spring. 12 credits.*

#### **PTDP 6402**

##### **Grand Rounds IV**

This is the fourth and final course in the Grand Rounds sequence. The DCE will coordinate a general Grand Rounds, in which each student will be required to present a 20-minute case report concerning one relevant case for physical therapy based on Clinical Education IV. Physical therapy faculty are invited to attend and participate in Grand Rounds IV. Furthermore, Grand Rounds IV will be open to members of the Downstate community and the program's clinical sites. This seminar will focus on exploring the expectations of physical therapy students in a clinical setting. Issues



related to the therapist-patient/client relationship and student-clinical instructor relationship will be discussed. Issues regarding professional behavior, dealing with clinical problems, and the grading scheme used by the clinical instructor will be emphasized. *Seminar. Spring. 1 credit.*

#### **PTDP 6404**

##### **Pharmacology**

This course is designed to provide the student with the fundamental knowledge of different drug classifications and the pharmacodynamics of the most frequently used drugs. Learning methods include lecture, audiovisual materials, journal articles, and simulations. *Lecture/discussion.*

*Fall. 2 credits.*

#### **PTDP 6405**

##### **Differential Diagnosis**

In this course, students will learn to formulate a diagnosis based upon the screening, examination, and evaluation of impairments and functional limitations of the patient/client. Students and faculty will use role-play and discussion to further integrate the screening, examination, and evaluation of patients/clients with complex multi-system conditions. Through evidence-based clinical decision making, students will discuss the process of making a differential diagnosis. A case-based format will be used to integrate clinical findings in order to arrive at a diagnosis and to determine whether to initiate intervention or refer to another practitioner. Students will critically appraise the different physical therapy diagnoses made by classmates and those of expert practitioners. The scope of the physical therapy practice, formulating diagnoses, and referring to physicians and other health-care practitioners will be discussed.

*Lecture/discussion/lab. Spring. 2 credits.*

#### **PTDP 6406**

##### **Musculoskeletal Physical Therapy III**

This course will develop the student's skills to appropriately examine, evaluate, and design physical therapy interventions for people who have had musculoskeletal surgeries of the extremities and vertebral column. *Lecture. Fall. 1 credit.*

#### **Interprofessional Courses**

See p. 41 for course descriptions.

#### **ANAT 3010**

##### **Human Gross Anatomy**

#### **ANAT 3210**

##### **Human Neuroanatomy**

#### **INDI 3110**

##### **Kinesiology**

#### **MSCI 3211**

##### **Medical Sciences**

#### **PHTH 3303**

##### **Research Methods and Evidence-Based Practice**

#### **PHYS 3110**

##### **Principles of Human Physiology and**

##### **Biochemistry**

#### **PHYS 3212**

##### **Neurophysiology of Motor Control**

#### **INDI 5014**

##### **Brooklyn Free Clinic Experience**



## PHYSICIAN ASSISTANT Master of Science Degree

Chairperson and Clinical Assistant Professor  
*Andrea Trimmingham-Aina*

Medical Director  
*Samy I. McFarlane, MD*

Assistant Professor  
*Norman McCulloch, Jennifer Otey, Edward Perchik  
Edison Ruiz, Abdallah Saudi*

Clinical Assistant Professor  
*Jennifer Otey, Julie Black-Pearl, Lorraine Sanassi*

Adjunct and Clinical Faculty  
*Daniel Agoba, Darin Gilstrap, Henry Landais, Kimberly  
Laughton, Kurt Loney-Walsh, James Lukose, Dawn  
Morton-Rias, May Nguyen, Joseph Turkson, Brittany  
Wilson*

The physician assistant is a professional member of the healthcare team who is qualified by academic and clinical education to practice medicine with supervision by a licensed physician. Following a medical model of patient care, physician assistants are qualified to perform a wide range of duties traditionally performed only by physicians. Physician assistants obtain patient histories; perform physical examinations; diagnose illness; determine treatment plans; order and interpret laboratory, diagnostic, and therapeutic procedures; and prescribe medication as well as provide patient education, counseling, and follow-up care. Physician assistant program graduates in New York State are required to successfully complete the National Commission on Certification of Physician Assistant (NCCPA at [www.nccpa.net](http://www.nccpa.net)) initial certification examination, before becoming licensed and registered to practice medicine in the state. However, they may obtain a limited permit, which allows physician assistants to practice temporarily prior to passing the board exam. The physician assistant's scope of practice is determined by medical discipline, practice setting, level of expertise, and institutional guidelines.

Detailed information regarding the physician assistant profession in New York State and licensure requirements may be obtained by contacting the Office of the Professions, Board of Medicine ([www.op.nysed.gov/prof/med](http://www.op.nysed.gov/prof/med)). NCCPA is the only credentialing organization for physician assistants in the United States and is dedicated to assuring the public that certified physician assistants meet established standards of knowledge and clinical skills upon entry into practice and throughout their careers. Academic regulations are outlined in the SUNY Downstate Student Handbook and PA Program Handbook, provided on-line to all entering students.

### THE PROGRAM

The twenty-seven-month full program is designed to provide the academic and clinical foundations for primary-care physician assistants; foster the development of the attitudes, values, and behavior or appropriate for healthcare providers; and prepare students to participate in a team approach

to patient care. Emphasis is placed on understanding the role and responsibilities of physician assistants in the provision of quality health service, inclusive of: the treatment and management of disease states, meeting the healthcare needs of a richly diverse patient population, and fostering health promotion and disease prevention.

### PROGRAM BACKGROUND

The SUNY Downstate Physician Assistant Program was developed in 1990 to meet the expanding healthcare needs of the underserved in Brooklyn and New York City. The program graduated its first class in 1992 and continues to enroll a richly diverse, well-qualified applicant pool. The program is nationally recognized for its leadership in urban PA education and deployment of diverse physician assistants. The program, which begins in late May or early June, offers a 27-month, professional course of study leading to the MS degree. The curriculum integrates the basic sciences, social sciences, medical sciences, and clinical experiences needed to provide a comprehensive introduction to the practice of medicine. The four-semester didactic phase consists of lectures, laboratories, and practical and simulation experiences designed to provide students with the knowledge necessary to address patients in a clinical context. The clinical phase consists of ten supervised clerkships (clinical training experiences) at a broad range of clinical affiliates, designed to provide senior students with a valuable opportunity to develop and refine their professional clinical skills. Graduates of the program are trained with an emphasis on primary care but are qualified to practice in a broad range of medical disciplines under the supervision of a licensed physician.

### ADMISSION REQUIREMENTS

Please refer to pg. 10-16 of this Bulletin. Check for the latest requirements and apply online through the Admissions section of Downstate's website: <https://www.downstate.edu/education-training/school-of-health-professions/admissions/physician-assistant/index.html>.

### ACCREDITATION

The program is accredited by the Accreditation Review Commission on Education for the Physician Assistant, Inc. and is approved by the New York State Board of Higher Education and Board of Regents. The next accreditation review will take place in 2019.

### GRADUATION HONORS

*Academic Excellence* – to the student who has maintained a high GPA during the didactic phase and has demonstrated outstanding professionalism.  
*Clinical Excellence* – to the student who has demonstrated outstanding clinical acumen, professionalism, and other qualities, which typify the PA Profession.  
*Patricia Devine Award for Achievement, Perseverance, and Professional Commitment* – to a senior student who performed very well while experiencing extraordinary personal circumstances.  
*Research Award* – to the student who has demonstrated exceptional performance in clinical research.  
*PA Class Facilitator* – to the student who demonstrates

exemplary facilitation of the success of their fellow classmates above and beyond their own individual needs.

*Student Leadership Award* – to the PA class president for providing able leadership of the PA class and PA Club and confidently representing the class to the PA program and campus community.

### CAREER OPPORTUNITIES

Employed in healthcare settings and in every medical and surgical specialty, physician assistants function to increase access and enhance the quality of patient care while contributing to medical cost containment. Demand for physician assistants is steadily increasing, with approximately three to four employment opportunities for every new graduate. For detailed information regarding the physician assistant profession on a national level, contact the American Academy of Physician Assistants (AAPA) at [www.aapa.org](http://www.aapa.org); the New York State Society of Physician Assistants (NYSSPA) at [www.nysspa.org](http://www.nysspa.org); and the Physician Assistant Education Association (PAAEA) at [www.paeonline.org](http://www.paeonline.org).

### COURSE DESCRIPTIONS

#### PAMS 5006

##### Interviewing and Physical Diagnosis

This course introduces the student to the fundamental of the medical interview and the physical examination. Students acquire the knowledge and skill necessary to obtain a complete medical history. Topics include interviewing techniques, cultural barriers, and effective communication methods. Students develop the skill necessary for performing and recording a complete physical examination, including medical note-taking. This course is also designed to prepare the physician assistant student for the clinical phase of the curriculum. Emphasis is on the development of the skills and techniques necessary for performing comprehensive and focused physical examinations, utilizing specific techniques and diagnostic procedures. As part of the development of these clinical skills, students participate in the Physician Assistant Mentoring Program, in which students are paired with and observe a practicing physician assistant. (*Prerequisite: ANAT 5012 Human Gross Anatomy.*) *Lecture-Practicum. 4 credits.*

#### PAMS 5011

##### Neuroanatomy for PA Students

This course is designed to introduce the student to the major functional components of the central nervous system. Emphasis is given to those aspects that relate to the role of the central nervous system in health and disease. *Lecture/Practicum. 1 credit.*

#### PAMS 5100

##### Clinical Microbiology/ Immunology

This course builds upon the general principles of microbiology and examines the role of bacteria, fungi, parasites, protozoa, and viruses in disease, immunity, and public health practice. Emphasis is placed on medical application and basic clinical diagnostic procedures. *Lecture/ Laboratory Demonstration. 2 credits.*

**PAMS 5101****EKG Interpretation**

This course provides the student with knowledge and skills in electrocardiogram interpretation.

(Prerequisite: PHYS 5110 Physiology & Biochemistry, Pathophysiology.) Lecture. 0.5 credits.

**PAMS 5102****Health Promotion and Disease Prevention**

This course is designed to provide PA students with a didactic foundation in the principles of health promotion, risk reduction, and disease prevention so that they will be able to integrate components of clinical preventive services into their daily clinical PA practice. (Prerequisite: MSC1 5100 Research Methods.) Lecture/Practicum. 2 credits.

**PAMS 5207****Physician Assistant Practice**

The course provides physician assistant students with an introduction to clinical practice through the study of the development of the physician assistant profession. Emphasis is placed on understanding the physician assistant's role in the team approach to primary health care through cost-effective treatment and management, health promotion and disease prevention and patient/community education. Lecture-Field Work. 0.5 credits.

**PAMS 5211****Clinical Decision Making**

This course is designed to reinforce and refine the skills obtained in inter-viewing & Physical Diagnosis, and to further prepare the physician assistant student for the clinical phase of the curriculum. Students begin to integrate information: formulate diagnoses and differential diagnoses through critical thinking; and establish appropriate treatment plans. (Prerequisite: PAMS 5006 Interviewing & Physical Diagnosis & PAMS 5301 Adult Primary Care Medicine Lecture Practicum.) 2 credits.

**PAMS 5212****Introduction to Psychiatry**

This course utilizes didactic instruction, role playing and responsibilities in the recognition, assessment, treatment and referral of the psychologically impaired and the mentally ill as encountered in the primary care and emergency department settings. Students are introduced to techniques utilized in performing a psychiatric interview and formulating appropriate treatment and management plans. (Prerequisite: PAMS 5006 Interviewing and Physical Diagnosis.) Lecture. 2 credits.

**PAMS 5241****Clinical Procedures**

A series of lectures and practice provide the physician assistant student with basic knowledge and clinical skill necessary to perform minor suturing, venipuncture, medication administration, splinting and casting, endo-tracheal/nasogastric intubation, urinary bladder catheterization, and lumbar puncture. In addition, issues of principles of radiology are presented. (Prerequisite: PAMS 5301 Adult Primary Care Medicine.) Lecture Laboratory. 3 credits.

**PAMS 5251****Human Sexuality**

This course is designed to introduce the student to the bio-social basis of gender development, including sex, gender and sexual orientation, variety of sexual behaviors, values and attitudes and dysfunctions. (Prerequisite: 5006 Interviewing and Physical Diagnosis.) Lecture. 1 credit.

**PAMS 5252****Long-Term Care and Gerontology**

This course will provide an overview of the physiologic and psychosocial aspects of aging appropriate for the Primary Care PA. (Prerequisite: PAMS 5212: Introduction to Psychiatry.) Lecture. 2 credits.

**PAMS 5300****Pathophysiology**

Pathophysiology provides a basic introduction to the study of disease and disease processes as a scientific basis for understanding health and disease in the study of medicine. A clear understanding of structural and functional changes in cells, tissues and organs is imperative for optimal patient management, including appropriate utilization of diagnostic techniques, therapeutic management and patient education and counseling. (Prerequisite: PAMS 5012 Gross Anatomy.) Lecture. 8 credits.

**PAMS 5301****Adult Primary Care Medicine**

This course provides physician assistant students with the didactic foundation necessary to address patients in the clinical context. It introduces the fundamentals of disease processes and principles of Primary Care Medicine. Emphasis is on the primary care approach to patient care, including the common clinical presentations, signs and symptoms as well as evaluation and management techniques. (Prerequisite: PAMS 5012 Anatomy, PHYS 5110 Physiology, PAMS 5300 Pathophysiology.) Lecture. 8 credits.

**PAMS 5311****Pharmacotherapeutics**

This course is an intensive review of clinical pharmacology and clinical pharmacy. Drug classifications are discussed as they affect specific organ systems with emphasis on common dosage, potential side effects, and drug reactions, factors influencing safety and effectiveness. (Prerequisite: PAMS 5012 Anatomy, PHYS 5110 Physiology and PAMS 5316 Intro to Pharmacology.) Lecture. 4 credits.

**PAMS 5316****Introduction to Pharmacology**

This course provides the student with the basic concepts and underlying principles of Pharmacology. Emphasis will be in the areas of pharmacokinetics and pharmacodynamics. Formalized models will be used to systematically demonstrate the behavior of drugs in the body. (Prerequisite: Neuroanatomy.) Lecture. 1 credit.

**PAMS 5411****Essentials of Pediatrics, Obstetrics, and Gynecology**

This course serves as a basic introduction to the diagnosis and management of common problems

in the areas of obstetrics/ gynecology and pediatrics. (Prerequisite: PAMS 5301 Adult Primary Care Medicine.) Lectures, community service. 4 credits.

**PAMS 5421****Essentials of Emergency Medicine and Surgery**

This course serves as a basic introduction to the diagnosis and management of common problems in the areas of surgery and emergency medicine. (Prerequisite: PAMS 5301 Adult Primary Care Medicine.) Lectures. 5 credits.

**PAMS 5501****Issues of Professional Practice**

This course provides a personal exploration of values as well as a survey of contemporary thoughts on ethical and legal issues concerning medical treatment and professional practice. Lecture. 1 credit.

**CLINICAL CLERKSHIPS**

Clinical clerkships are assigned by the program. Clinical assignments cannot be refused by students except in extraordinary circumstances. (Prerequisite: successful completion of all didactic courses.)

**PAMS 6000****Clerkship in Internal Medicine**

This clerkship provides physician assistant students with practical clinical experience to interpret and integrate information obtained via the comprehensive history and physical examination, to formulate diagnoses, and to develop effective treatment plans. In addition, physician assistant students learn the indications and limitations of diagnostic procedures and therapeutic regimens common to internal medicine. 6 credits/6 weeks.

**PAMS 6010****Clerkship in Internal Medicine (Sub-specialty Elective)**

This clerkship provides the physician assistant student with an additional opportunity to experience patient management in the medical subspecialties such as cardiology, hematology infectious disease, etc. 3 credits/3 weeks.

**PAMS 6100****Clerkship in Pediatrics**

This clerkship acquaints the physician assistant students with practical clinical experience in diagnosis, evaluation and management of primary care pediatric patients encountered in the ambulatory as well as in-patient setting. Emphasis is on the recognition of normal as well as abnormal findings, diagnosis and management of common childhood illnesses, assessment of developmental milestones, immunizations and well-child care from birth through adolescence. 6 credits/6 weeks.

**PAMS 6200****Clerkship in Surgery**

This clerkship acquaints physician assistant students with the diagnosis and management of general surgical problems encountered in the hospital as well as ambulatory setting. Students participate in surgical management during the pre-operative phase, assist during surgery and provide post-operative management. 6 credits/6 weeks.

**PAMS 6210**  
**Clerkship in Surgery (Sub-specialty Elective)**

This clerkship provides the physician assistant student with an additional opportunity to experience patient management in surgical sub-specialties such as trauma, neurosurgery, orthopedics and/or plastic surgery. *3 credits/ 3 weeks.*

**PAMS 6300**  
**Clerkship in Emergency Medicine**

This clerkship provides physician assistant students with practical clinical experience by working in an urban acute care setting. It enables the student to develop a focused and systematic approach in the diagnosis and treatment of common medical and surgical emergencies. *6 credits/6 weeks.*

**PAMS 6400**  
**Clerkship in Obstetrics and Gynecology**

In this clerkship, physician assistant students gain practical clinical experience in the diagnosis, evaluation and management of the normal and abnormal conditions in obstetrics and gynecology. In addition, students learn to provide prenatal and postpartum care, family planning, and health education and counseling as appropriate to the obstetrics and gynecology patient. *6 credits/6 weeks.*

**PAMS 6500**  
**Clerkship in Primary Care**

This clerkship provides physician assistant students with the opportunity to gain experience in the treatment and management of ambulatory medical conditions. Emphasis is on effective and empathetic interviewing and counseling as well as management of the broad spectrum of primary care medical conditions that are encountered in the ambulatory setting. It will also focus on health promotion and disease prevention. *6 credits/6 weeks.*

**PAMS 6600**  
**Clerkship in Psychiatry**

This clerkship acquaints physician assistant students with the diagnosis and management of ambulatory as well as emergency psychiatric problems. Students learn to recognize and treat acute as well as chronic mental health disorders, affective and cognitive disorders, as well as disorders associated with substance abuse. *3 credits/ 3 weeks.*

**PAMS 6700**  
**Clerkship in Geriatrics**

This clerkship provides physician assistant students with practical clinical experience in the diagnosis and management of common geriatric medical conditions. Additional emphasis is placed on rehabilitation techniques, nutritional support and psychosocial issues associated with the care of the elderly patient. *3 credits/ 3 weeks.*

*\*CLINICAL CLERKSHIPS ARE ASSIGNED BY THE PROGRAM. CLINICAL ASSIGNMENTS CANNOT BE REFUSED BY STUDENTS EXCEPT IN EXTRAORDINARY CIRCUMSTANCES.*

**PAMS 6001**  
**Masters Project I**

This is the introductory segment of the senior year Masters Project work. During this course, salient topics that cover the master's project overview, selection of project topics, plagiarism, citation & writing and capstone presentation are presented over the course of the first clerkship semester. Major issues in primary care as well as current changes/trends in medicine are also addressed. Students develop and demonstrate the skills necessary to research and prepare formal presentations (from Senior Seminar). Students are assigned to project advisors who will guide them in selecting a topic acceptable for the master's project. By the end of this course, students will have settled on their choice/title of a master's project. The project topics will be focused on topics in medicine and public health. After final review by their faculty advisor(s), the student can start working on the initial draft to be used as a basis for the final paper that will be covered in MP II and MP III. *Lecture/Discussions. 1 Credit*

**PAMS 6002**  
**Masters Project II**

During this course semester, the student will continue to follow up with their advisors as they continue to progress and revision of their project. The students will meet with their course advisors, no less than three times.

The student comes prepared to meetings and provides the mentor with a reasonable amount of time to review the materials before meeting. The student makes arrangements with the mentor to review the problem statement, bibliography and rough draft at a time convenient to the mentor, but within the confines of the class deadlines. *Lecture. 1 Credit.*

**PAMS 6003**  
**Masters Project III**

The Masters Project III is the capstone component of the clinical year masters project and a continuation from Masters Project II. It culminates in a completed written project and its oral presentation. It also concludes the MS curriculum. Students will continue to work with assigned advisors to revise their papers and the eventual power-point presentations. The eventual findings from the Master's Project work are subsequently presented to the PA Program in two ways: as a written paper of a high scholarly or clinically relevant quality that is potentially publishable in a peer-review publication or another medical journal, and as a PowerPoint presentation to their course mates and PA Program or college faculty. During the concluding capstone practicum, students demonstrate their mastery of the subject of their Masters Project. Each student presents their Masters Project. *Lecture. 1 Credit*

**PAMS 5000 AND PAMS 5001**  
**Independent Study**

Each of these courses provides students who are on a modified course of study an opportunity to review anatomy and physiology, interviewing, physical examination, fundamentals of

pathophysiology, laboratory Courses are individualized to meet student's academic and clinical needs. This is accomplished through written assignments, independent reading, auditing of lectures, reviewing software, audio and video resources, classroom demonstrations, and presentations. *Students on a modified course of study are required to register for PHAS 5000 and/or PHAS 5001 and PHAS 5000 (3 credits) and PHAS 5001 (4 credits).*

Interprofessional Courses  
**ADMIN 5100**  
Health Care Delivery in the United States

**ANAT 5012**  
Human Gross Anatomy

**INDI 5012**  
Brooklyn Free Clinic Experience

**PHYS 3110**  
Principles of Human Physiology and Biochemistry

**MSCI 5100**  
Research Methods

**INTERPROFESSIONAL COURSES**

The following courses are taken in common by students in different pro- grams. See the individual Program of Study forms to find out which courses are required for each program.

**ADMN 5100**  
**Health Care Delivery in the United States**

This course provides an overview and analysis of the US healthcare delivery system and the Inter-relationships among the various elements of the system. The organizational structures and types of hospitals are described, along with ambulatory care, long-term care, home care, and mental health services. Financing and DRGs are reviewed and described. Quality assurance measures and ways to better control health- care delivery are reviewed. *Lecture. 1.5 credits*

**ANAT 5012**  
**Human Gross Anatomy**

Regional dissection and observation of the human body is combined with lectures and the use of models and films.. *Lecture. 5.5 credits.*

**INDI 5014**  
**Brooklyn Free Clinic Experience** This elective course is designed to provide a community service experience for undergraduate and graduate students. Registered students may participate by providing clerical and administrative duties and health care services related to their professions, including patient evaluation, taking vital signs, obtaining patient histories, performing physical exams, and providing patient management services under supervision. *0 credit*

**MSCI 5100**  
**Research Methods**

Introduction to designing and the critiquing of research studies. The lecture includes the fundamentals of defining a research problem, designing a study, measuring variables, selecting a sample, and analyzing data. In separate program



seminars, students design research proposals and apply general research concepts to their individual professions. *Lecture. 2.5 credits.*

### **PHYS 5110**

#### **Principles of Human Physiology and Biochemistry**

A study of the basic physiological and biochemical principles governing the properties of living tissue and the functions of various systems of the body (cardiovascular, respiratory, excretory, digestive, and endocrine), emphasizing the underlying unity of biological processes in responding and adjusting to environmental change. (*Prerequisite: Human Gross Anatomy for PA students*). *Lecture. Demonstration. 6 credits*

### **POST-PROFESSIONAL MASTERS COMPLETION PROGRAM**

This program of study is comprised of 30 credits. The courses are divided between core Physician Assistant program courses (*15 credits*) and required electives from the School of Public Health (*15 credits*) as noted below. (Please see the School of Public Health Bulletin for course descriptions.) Courses can be taken in any order and configuration with the exception of PAMS 5205 Master's Degree Project, which is completed at the culmination of studies.

#### School of Public Health Courses:

**BIOS 5200: Principles of Biostatistics** (*3 credits*)

**EPID 5200: Principles of Epidemiology** (*3 credits*)

**CHSC 5206: Program Design and Evaluation** (*3 credits*)

**EOHS 5200: Issues in Environmental Health** (*3 credits*)

**HPMG 5206: Introduction to Health Policy and Management** (*3 credits*)

#### Core Physician Assistant Program Courses:

### **PAMS 5201**

#### **Leadership in Healthcare Organizations**

The course will explore applied leadership theories, leadership skills,

and the organizational context in healthcare. A key purpose of this course is to help Physician Assistants in clinical practice become more effective leaders and to better understand the demands of leadership.

The course will cover topics that will serve as a guide for students on how to demonstrate leadership and management in an interprofessional and interprofessional health team-based context, and with individuals having different levels of clinical knowledge and competencies. Students will be introduced to concepts, metrics, and tools that will augment their effectiveness and improve efficiency. *Lecture 3 credits.*

### **PAMS 5202**

#### **Advanced Pharmacotherapeutics**

This course is designed as a general review and refresher on the clinician's knowledge of pharmacotherapeutics and clinical skills. It is also designed to help the clinically practicing Physician Assistant in an eventual Physician Assistant National Recertification Examination (PANRE). Additionally, this course is to present an up-to-date overview of pharmacotherapeutics, their clinical applications and to engage students in interactive, case-based learning experiences designed to enhance the clinical judgment and problem-solving skills requisite in clinical practice experience. Professional responsibilities of the clinician's prescriptive privileges will be covered. *Lecture 3 credits.*

### **PAMS 5203**

#### **Medical Writing**

This course provides Physician Assistant students with an introduction to medical writing in clinical practice. The production of educational material from primary and secondary research must be carried out in an organized fashion and the final product presented in a clear and efficient manner. The course discusses the proper techniques for identifying scholarly articles from educational journals and internet resources and examines the elements required for the successful publication of a journal article or clinical case review. All students are required to develop and submit a quality paper that

meets the requirements for publication in a peer-reviewed professional or biomedical journal in the American Psychological Association (APA) format. *Lecture 3 credits.*

### **PAMS 5204**

#### **Complementary and Alternative Medicine**

This course will explore complementary and alternative healing practices. The course will be conducted in the context of a scientific review of recent evidence-based biomedical research on the effectiveness and mechanism of action for various therapeutic modalities.

The course will also include a review of the scientific method as it is applied in medicine. The materials for the study will be based on a survey of the evidence-based biomedical research literature, towards the goal of advancing scientific knowledge.

*Lecture 3 credits.*

### **PAMS 5205**

#### **Master's Degree Project**

This course serves as a capstone experience for Physician Assistants enrolled in the Post Professional Masters Completion Degree program. The intent of the course is to provide students an opportunity to apply knowledge and skills developed through their MS program in an area of particular applicability to their practice and clinical interests. A comprehensive, synthesizing project applying the knowledge and skills learned in the courses that comprise a student's degree program is a valuable and essential component of the graduate education experience. Projects must have theoretical/academic and clinical components.

(*Prerequisites: PAMS 5201, PAMS 5202, PAMS 5203, PAMS 5204 and required School of Public Health electives.*) *Lecture 3 credits.*



## INTERPROFESSIONAL COURSES

The following courses are taken in common by students in different programs. See the individual Program of Study forms to find out which courses are required for each program.

### ADMN 3100/5400\*

#### Health Care Delivery in the United States

This foundation course provides an introduction to the present-day health care system in the United States. It provides an overview of historical perspective of health care to present day and changes in the future. Health economics, health care reform and financial reimbursement will be covered. The course provides an opportunity for students to explore issues related to professionalism and professional practice. *Computer presentation and discussion. Fall. 1.5 credits*

### ANAT 3010

#### Human Gross Anatomy

This course is designed with three separate but overlapping Anatomy formats for you to learn from: 1) laboratory dissection, 2) correlated lectures, and 3) text-graphics (print or electronic). At the crux of this learning triangle is the laboratory. You will readily see that each presents information and perspectives that parallel your dissection. These different resource formats are designed to clarify and amplify your dissection experience. The congruency of this format then becomes like a pair of 3-D eyeglasses, creating a vivid three-dimensionality of Anatomy that energizes your study and maximizes your knowledge and understanding.

The laboratory and other activities in this course are carried out in a dyad arrangement of students. A list of dyads, randomly paired by the staff, will be presented on the first day of the course. The natural inter-/intra-dependent learning units form the infrastructure of this instructional approach in this Human Anatomy course. Dyads share learning responsibilities and develop their own process for maximizing the use of all resources both those identified here-in and those that may be discovered by each team in the access and acquisition of knowledge and skills pertaining to this course. The dyad approach extends far beyond this course by developing a team approach to problem-solving, presentation techniques, in-depth reasoning; expanded use of resources; built-in feedback and pacing; and a broad repertoire of school and workplace behaviors and skills.

Palpation laboratory (Part of the requirement for Human Gross Anatomy): In this palpation lab class, students will learn to locate soft tissue and bony structures on live subjects which will supplement learning in the Human Gross Anatomy course. Students will also learn the different ranges of motion of specific body segments and basic

muscle function for human movement.

*Lecture-laboratory. Summer. 6 credits*

### ANAT 3012

#### Human Gross Anatomy

Human gross anatomy provides students with an understanding of the structure of human body using regional dissection and observation of the human body is combined with lectures and use of models and films. *Lecture-laboratory. Summer. 5.5 credits*

### ANAT 3210

#### Human Neuroanatomy

This is a lecture and laboratory course in Human Neuroanatomy. There will be 17 two-hour lectures, 4 two-hour lab sessions, and one lab review session (practice practical) distributed throughout the semester. Lecture material in the first half of the course covers regional descriptions of brain organization and, additionally, covers such topics as the blood supply of the central nervous system, neuronal development and neurohistology, fine structural organization of selected brain regions, and the organization of transmitter systems. Lecturers will provide handouts and assign required readings from the textbook. The midterm and final written exams will include both lecture material and assigned readings.

The laboratory sessions use whole and sectioned brain material in exercises on brain and the vascular structure. In the second half of the course, neuroanatomy is taught with an emphasis on how an intact nervous system leads to perception and behavior and how a damaged nervous system fails. *Lecture-laboratory. Spring. 1.5 Credits*

### ANAT 5001

#### Human Gross Anatomy

This course involves regional dissection, observation of the human body, and lectures, with emphasis on the musculoskeletal system. Palpation laboratories are correlated with specific areas of dissection. Case-based assignments apply course content to occupational therapy practice. *Lecture-laboratory. Summer. 6 credits*

### ANAT 5101

#### Human Neuroanatomy

This course consists of the study of the central nervous system, including laboratory examination of gross morphology of the human brain in both fresh and stained material. Includes basic anatomy, systems and tracts, vascular system, and integrative function of the nervous system as evidenced in behavioral phenomena. Journal club component requires synthesis of information about clinical applications of neuroanatomy concepts. *Lecture-laboratory. Spring. 2.5 credits*

### INDI 3110

#### Kinesiology

An analysis of human motion including kinematic and kinetic analysis, muscle action, arthrokinematics and osteokinematics, and the biomechanical principles of human motion. The information presented in this course builds upon the knowledge gained in "Human Gross Anatomy." This course forms an important foundation for students' analysis and synthesis of how the body moves through space and the specific internal and external constraints on the body. This foundation will be essential for all clinical courses in physical therapy. Classroom instruction includes traditional lectures, interactive lectures, and demonstrations of biomechanical principles. *Lecture. Fall. 3 credits*

### INDI 5002

#### Kinesiology

This course consists of the study of human movement. Principles of biomechanics, kinematics, and kinetics are applied to students' foundations in musculoskeletal anatomy. Kinetic and kinematic analysis of normal and abnormal movement. Additional lab and/or journal club component provides an application to occupational therapy practice. *Lecture. Fall. 3 credits*

### INDI 5100

#### Research Methods

This course is an introduction to designing and critiquing research studies in the allied health professions. Lectures include the fundamentals of defining research problems, conducting literature reviews, selecting appropriate quantitative or qualitative designs, adhering to research ethics, designing studies, and collecting and analyzing data. In a separate program seminar, students apply general research concepts to the occupational therapy profession and research principles to the use of standardized testing in occupational therapy. *Lecture-seminar. Fall. 2.5 credits*

### INDI 5012/5014\*

#### Brooklyn Free Clinic Experience

This elective course is designed to provide a community service experience for undergraduate and graduate SOHP students. Registered students may participate by providing clerical and administrative duties and health care services related to their professions, including patient evaluation, taking vital signs, obtaining patient histories, performing physical exams, and providing patient management services under supervision. *1 credit*

### MSCI 3211

#### Medical Sciences

Study of patients with medical, neuromuscular, musculoskeletal and cardiopulmonary conditions across the lifespan. Lecture, case-study presentations and discussion of etiology, symptoms

and medical management of patients by faculty from the School of Health Professions. This course is divided into four modules: Pediatrics, Medicine, Neurology, and Orthopedics. Each module is worth one credit.

The Pediatrics module will provide Occupational Therapy and Physical Therapy students with a basic understanding of several developmental disorders of children. The etiology of these conditions will be discussed, as well as their treatment. The role of the Occupational Therapist and Physical Therapist in recognizing these conditions and how they may affect rehabilitation, as well as further development of children in adolescence, will be discussed.

The Medicine module is one of four course modules that constitute Medical Sciences. Using case-based learning, students will become familiar with the etiology, pathophysiology, symptoms, signs, and medical management of selected medical diagnoses.

The Neurology module is one of four course modules that constitute Medical Sciences. Using case-based learning, students will become familiar with the etiology, pathophysiology, symptoms, signs, and medical management of selected neurological diagnoses.

The Orthopedics module is one of four course modules that constitute Medical Sciences. Using case-based learning, students will become familiar with the etiology, symptoms, and medical management of selected orthopedic diagnoses. *Lecture. Spring 4 credits.*

### **MSCI 4100** **Research Methods**

This course is an introduction to designing and critiquing research studies in the allied health professions. The lecture includes the fundamentals of defining a research problem, constructing a rationale, conducting a literature review, formulating hypotheses, designing a study, measuring variables, selecting a sample, and analyzing data. In separate program seminars, students apply general concepts to their individual professions. *Lecture-Seminar. Fall 2.5 credits*

### **MSCI 5211** **Medical Sciences**

This course involves lectures, case-study presentations and discussion of etiology, symptoms and medical management of patients with medical, pediatric, orthopedic, and neurological diagnoses. *Lecture. Spring. 4 credits.*

### **Research Methods and Evidence-Based Practice**

Introduction to designing, critiquing and understanding quantitative and qualitative research designs and studies to inform practice. Lecture includes the fundamentals of designing a study, measuring variables, selecting a sample and analyzing data. In separate program seminars, students design research proposals, apply research concepts and begin to understand the evidence base of their individual professions.

Research Methods seminar (part of the requirements for Research Methods and Evidence-Based Practice): In a separate program seminar, students critique literature and apply general research concepts to the physical therapy profession. This course forms the research foundation for the capstone project which will be undertaken in Capstone Project I-IV. The students use their knowledge gained from Human Gross Anatomy, and Professional Development I, as well as from courses taken concurrently, such as Kinesiology, Physical Therapy Examination I, and Patient/Client Management I and II, to understand concepts gleaned from the physical therapy literature. *Lecture/seminar. Fall. 2.5 credits*

### **PHYS 3110** **Principles of Human Physiology and Biochemistry**

A study of basic physiological and biochemical principles governing the properties of living tissue and their participation in the coordinated function and control of various systems of the body with emphasis on the underlying unity of biological processes in response to and adjustment to environmental change.

The emphasis in this course will be on normal functions, but to some extent we shall consider the consequences of disease and injury, and deal with the body's potential for recovery and for compensation. Behavioral responses to environmental conditions will be considered, but in this area our chief concern will be with the regulation and control of fundamental reflexes or neuro-endocrine mechanisms. *Lecture/Laboratory. Fall 6.0 credits*

### **PHYS 3212** **Neurophysiology of Motor Control**

This course expands upon the neurophysiology presented in Principles of Human Physiology and Biochemistry, going into greater depth in aspects of sensorimotor control of movement, especially relevant in understanding patients.

The approach to sensorimotor control will usually initially stress the importance of studying human neurological disease in providing the first clues as to the function of brain structures. Subsequent understanding of structure-function relationships has usually depended heavily on animal experimentation. Such animal experiments have led to explanations at progressively finer structural levels, especially membrane function. The intellectual challenge is to reverse the reductionist trend and deploy the membrane mechanisms that have been elucidated to explain motor behavior – the integrated expression of the sensorimotor areas and nuclei.

In recent years, technical advances, both non-invasive and invasive, have transformed our ability to investigate the mechanisms operating in human sensorimotor control. Where appropriate, these will be discussed in lectures or demonstrated on human subjects during lectures. Thus, our understanding of human sensorimotor control now rests on the study of human disease, animal experiments and experiments on humans, which serve to test and validate the applicability of animal research to humans. *Lecture/discussion. Spring. 1.5 credits.*

### **PUBH 5102** **Health Care Across the Lifespan**

This course is designed to examine health care from infancy to old age.

Selected models are presented for understanding development processes as an individual age. These models will be drawn from disease states as they evolve across the lifespan. That knowledge will be applied to issues of health maintenance and disease prevention.

Introduction to public health topics related to human health and disease, including a review of anatomy, physiology, and pathology of selected organ systems and associated diseases will be discussed. *Lecture. 3 credits*

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\* This course is offered to both undergraduate and graduate students.

# Teaching Facilities

The classroom and laboratory facilities of the School of Health Professions are located in both the Health Science Education Building (395 Lenox Road) and the Basic Sciences Building (450 Clarkson Avenue). Clinical content is taught at SUNY Downstate Health Sciences University's Downstate University Hospital, Kings County Hospital Center, and a large network of affiliated hospitals and community health facilities.

## ADVANCED LEARNING RESOURCE CENTER (ALRC)

Located on the sub-floor of the Medical Library, the ALRC provides immersive and simulation-based educational programs for students, clinical trainees, and faculty. High-fidelity mannequins permit identification of pathologic physical exam findings and foster the development of clinical reasoning and procedural skills in a zero-fault environment. Partial Task Trainers allow trainees to practice specific skills such as endotracheal intubation, central and peripheral line placement, pericardiocentesis, transvenous pacemaker insertion, and other invasive procedures. Compact ultrasound systems and tissue phantoms permit trainees to learn and practice ultrasound-guided techniques for invasive procedures such as thoracentesis, paracentesis, vascular access, and regional anesthesia. A live Standardized Patient Program involving trained actors who play the role of patients, family members, and others fosters history taking, physical exams, and communication skills.

## COLLEGE COMPUTER LABORATORY

The School of Health Professions computer lab is equipped with a laser printer and 24 PCs. Students can use Microsoft Office applications (Word, Excel, and PowerPoint) to create documents, spreadsheets, and slide presentations. In addition, students have fast access to the Internet via the campus network. SPSS and SAS are available throughout the campus.

Each student is issued an email account that can be used for local and Internet messages. The computer lab is open 24 hours, seven days a week for SOHP students. A basic orientation to the computers and the network is offered at the beginning of each semester.

The Medical Informatics Program also has a dedicated computer lab on the 8th floor of the Education Building. The lab has 20 stations, fully equipped with software programs specific to the educational needs of students in this master's program. In this lab, eClinical Works is available for the Medical Informatics students to be able to practice with the Electronic Medical Record.

## OTHER LABORATORY FACILITIES

Many programs offer specially equipped laboratories. They include:

### Diagnostic Medical Imaging Laboratory

This lab houses ultrasound machines, phantom trainers, and a unique collection of models for teaching sectional anatomy.

### Midwifery Classroom/Laboratory

This facility is equipped with gynecologic examining tables, lights, and screens to enable students to learn and practice physical and pelvic assessments in a comfortable, private space.

**Occupational Therapy Laboratory** Adapted computer workstations with assistive technology software, current assessment tools, activities of daily living assistive devices, state-of-the-art sensory processing equipment, and a sensory room are used for teaching and research.

### Physical Therapy Research Laboratory

Equipped with a full range of advanced assessment tools, the laboratory is a resource for students pursuing independent study or research. Students also have access, with faculty supervision, to the Human Performance Laboratory in the Department of Orthopedic Surgery and Rehabilitation Medicine.

### Physician Assistant Classroom/Laboratory

This facility is equipped with examination tables, screens, models, and medical office equipment to enable students to learn and practice physical exam assessments, venipuncture, IV and Foley catheter placements, suturing, casting, and other diagnostic and therapeutic procedures under faculty supervision. Students also practice in the ALRC Simulation Center.

## Clinical Care Facilities

Allied health students receive their clinical training at SUNY Downstate's University Hospital and at affiliated institutions and sites throughout the metropolitan area. Clinical sites used in the teaching program may vary from year to year.

### **DOWNSTATE UNIVERSITY HOSPITAL**

Downstate University Hospital) is the 376-bed plus 30-bassinet teaching hospital of SUNY Downstate Health Sciences University and is integral to the clinical education provided to students. As the regional center for Brooklyn and Staten Island, UHB provides, on average, care to approximately 16,000 inpatients and nearly 360,000 visits in its on-site Outpatient Department, Dialysis Center, and offsite ambulatory care centers. More than 71,000 visits are made to UHB's Emergency Department yearly. UHB is a full-service hospital fully accredited in all medical subspecialties. Downstate University Hospital is a regional provider of outstanding primary and advanced medical care. The cardiothoracic surgery, cardiovascular medicine, and interventional cardiology programs at UHB are among the leading cardiac-care teams in Brooklyn. As part of an academic medical center, UHB has several specialized programs that support its Children's Hospital and enable it to excel among pediatric services in Brooklyn and New York. The hospital is the designated Regional Perinatal Center for Brookdale, Interfaith, Lenox Hill, and Long Island College Hospitals. UHB's Pediatric Kidney Center is the second-largest facility for pediatric dialysis in the state. UHB's integration with the College of Medicine has made it possible to assemble a full-time staff of clinicians, basic

scientists, and other healthcare professionals who have strong academic backgrounds in their fields of specialization. Faculty members closely supervise the care of patients while instructing allied health students along with medical and nursing students.

### **KINGS COUNTY HOSPITAL CENTER**

One of the largest acute-care hospitals in the country and the largest municipal hospital in New York City, with 43 acres and 23 buildings, Kings County Hospital Center offers clinical opportunities of every description. Operated by the Health and Hospitals Corporation of the City of New York, Kings County recently completed a state-of-the-art 338-bed inpatient tower as part of its modernization project. Its facilities include one of the country's busiest emergency rooms, a nationally recognized Level I trauma center, and more than one hundred ambulatory care services.

### **MEDICAL CENTERS, HEALTH AGENCIES, AND CLINICAL SITES**

Complementing the clinical experiences available at Downstate University and Kings County Hospital Center, the School of Health Professions maintains affiliations with a broad network of community agencies and hospitals, as detailed in the box "Medical Centers, Health Agencies, and Clinical Sites" in the pages that follow.



## CLINICAL AFFILIATES

Adam I. Cohen, DPT, PC Physical Therapy & Sports Rehabilitation  
 Advance Orthopedics & Sports Medicine Institute  
 Ahava Medical and Rehabilitation Center  
 AHS Hospitals Corp  
 Albany Obstetrics & Gynecology, PC  
 Apicha Community Health Center  
 Artistic Quality Therapy Associates, LLC  
 Aristocrat Plastic Surgery & MedAesthetics  
 Atlantic Health System (AHS)  
 Attentive Midwifery, PC  
 Austin Area Birthing Center-Duval, WM Cannon  
 Baby+Company Charlotte 1 LLC  
 Back to Health Physical & Occupational Therapy  
 Barbara A. Charles, CNM  
 Barrier Free Living  
 Bedford Center for Nursing & Rehabilitation  
 Bellevue Hospital Center (HHC)  
 Best Medical Care, PC  
 Beth Israel Medical Center  
 Blythedale Children Hospital  
 Board of Cooperative Educational Services of Nassau County (BOCES)  
 Boro Park OB/GYN  
 Boro Park Pediatric Associates, PLLC  
 Boston Medical Center Corporation  
 Brookdale Hospital Medical Center  
 Burke Rehabilitation Center  
 Catholic Charities Neighborhood Services/Early Childhood Services  
 Catholic Charities Neighborhood Services/Senior Services  
 Central Park South Obstetrics & Gynecology Associates  
 Challenge Early Intervention Center  
 Charles B. Wang Community Health Center  
 Chattanooga-Hamilton County Hospital Authority  
 Chiang Mai University's OT Clinic & Thai Elephant-Assistant Therapy Program  
 CityCare Medical, PC  
 Clinical Directors Network, Inc.  
 Coler Goldwater Memorial Hospital (HHC)  
 Coler-Goldwater Specialty Hospital & Nursing (HHC)  
 Collaborative Support Programs of New Jersey, Inc.  
 Community Care Midwifery  
 Community Midwifery Care  
 Compass Learning Advantage  
 Coney Island Hospital (HHC)  
 Connecticut Childhood & Women's Center  
 Cornell University for its Weill Medical Center  
 Cumberland Diagnostic & Treatment Center (HHC)  
 D/B/A Erlanger Health System  
 Department of Education  
 Department of Veteran's Affairs (VA) Brooklyn, Bronx, Queens  
 DotHouse Health  
 Downstate University Hospital  
 Downtown Women's OB-GYN Associates  
 Dr. Boris Ripa, MD  
 Dr. Ghatan Dermatology, Cosmetic & Laser Surgery  
 Dr. Susan Smith McKinney Nursing & Rehab Center (HHC)  
 EBS Therapy of New York  
 East New York Diagnostic & Treatment Center (HHC)  
 Eduglobal Associates (EA)  
 Elmhurst Hospital Center (HHC)  
 Emilia's Kids  
 Evolve Physical Therapy and Sports Rehabilitation  
 Excelsior Orthopaedics  
 Federation Employment & Guidance Services (FEGS)  
 First Step Therapy, PLLC  
 Flatiron Dermatology  
 Forward Occupational Therapy, PLLC  
 Fox Rehabilitation  
 GCP Management (Garden OBGYN)  
 Gentle Care OB/GYN, PC  
 Golden Gate Rehabilitation & Health Care Center  
 Gouverneur Health (HHC)  
 Gramercy Cardiac Diagnostic Services, PC  
 Greater Harlem Nursing Home  
 Hand in Hand Early Childhood Center  
 Hands On Physical Therapy P. C.  
 Harlem Hospital Center (HHC)  
 HCR Healthcare, LLC (OT & PT)  
 Health SOS Physical Therapy  
 HeartShare Human Services of New York  
 Helen Hayes Hospital  
 Helen Keller Services for the Blind  
 HITLAB (Healthcare Innovation & Technology Lab, Inc.)  
 Holistic Ob/Gyn & Midwifery  
 Hospital for Special Surgery  
 Imagine Academy for Autism  
 Infinity Dermatology NYC  
 Institute for Community Living, Inc.  
 Institute of Continuous Learning @ SUNY HSEB/SLIP  
 Interfaith Medical Center  
 Irene Perloff, D.O., MD  
 Ironman Sports Medicine Institute at Memorial Hermann  
 Isabella Geriatric Center Inc.  
 J.F.K. Medical Center  
 Jacobi Medical Center  
 JAG Physical Therapy  
 Jamaica Hospital Medical Center  
 Jamaica Hospital Women's Health Center  
 Jamaica Physical Therapy  
 Jana Healthcare: Dr. Laila Farhat  
 Journey to Birth Midwifery, PLLC  
 Keller Army Community Hospital  
 Kessler Institute for Rehabilitation (PT-OT all affiliated sites)  
 Kessler Institute for Rehabilitation  
 Kingsbrook Jewish Medical Center/Rutland Nursing Home  
 Kingsbrook Jewish Medical Center (Internal Medicine, Emergency Medicine)  
 Kings County Hospital Center (HHC)  
 Kings Harbor Multi-Care Center  
 Kingston University  
 Kingston upon Thames Surrey KT1 1LQ  
 Lenox Hill Hospital (NSLIJHS)  
 Levit Dermatology  
 Linden Family Medical Care, PC  
 Long Island Care Center  
 Maimonides Medical Center  
 Mandel Dermatology  
 Manhattan Sports & Manual Physical Therapy  
 Mannam Medical Center  
 Memorial Hermann Sports Medicine & Rehabilitation  
 Memorial Hospital for Cancer & Allied Diseases  
 Mercy Medical Center  
 Metro Physical & Aquatic Therapy  
 Metropolitan Hospital Center (HHC)  
 Midwifery Care NYC  
 Modern Medical PC  
 ModernMD Urgent Care  
 Montefiore Medical Center/Albert Einstein Hospital  
 Montefiore Medical Center  
 Montefiore Nyack Hospital

Morris Heights Health Center  
 Mount Sinai Health System  
 Mount Sinai Medical Center  
 Motion PT Group  
 Mozelle Tobias  
 Mt. Sinai Hospital  
 Mt. Sinai St. Luke's Roosevelt  
 New Rochelle Hospital Medical Center  
 New York Cardiovascular Associates, PLLC  
 New York City Board of Education  
 New York City Department of Health  
 New York City Health & Hospitals Corporation (HHC)  
 NYC Medical Doctor, PC  
 NY Physical Therapy & Wellness  
 New York Presbyterian-Brooklyn Methodist Hospital  
 New York-Presbyterian Hospital  
 New York Presbyterian-Columbia UMC  
 New York Presbyterian-Queens  
 New York Surgical Associates  
 Nursing & Rehab Center (HHC)  
 NYU Langone Hospital  
 Newburgh Physical Therapy Center  
 Nick Roselli Occupational Therapy (NR-OT)  
 North Central Bronx Hospital (HHC)  
 Northwell Health, Inc. (all programs/all locations)  
 NU Image Medical Associates, LLP  
 NYU Hospitals Center (Joint Disease, Rusk, etc)  
 NYU Langone Hospitals  
 Ocean View Medical, PC DBA Ocean View Rehabilitation  
 One on One PT & Sports Rehabilitation (Bklyn & SI)  
 Optimum Health Physical Therapy  
 Pathways OT Therapeutic Wellness/Ebert OT, LLC  
 Pediatric Urology Associates, PC &  
 Pediatric Gynecology Associates  
 Physio Elements Physical Therapy  
 Precision Rehab Occupational Physical & Hand Therapy, PLLC  
 Premium Health Centers  
 Professional Physical Therapy  
 Project Renewal, Inc  
 Queens Hospital Center (HHC)  
 Radiant Skin & Dermatology, LLC  
 Rebecca School  
 Rehabilitation Associates of Brooklyn  
 Rehoboth Care, Inc  
 Richmond University Medical Center  
 RJ Medical & Urgent Care  
 RPT Physical Therapy  
 Schulman & Schachne Institute for Nursing & Rehabilitation  
 Seagate Rehabilitation & Nursing Center  
 Seaview Hospital Rehabilitation Center & Home-HHC Staten Island  
 Selfhelp Community Services, Inc  
 Sensory Freeway Therapy Center  
 Sensory Freeway Therapy Services, OT, PT & SLP, PLC  
 Sensory Street Pediatric Occupational Therapy, P.C.  
 Small Things Grow Midwifery  
 South Shore Midwives (formerly Gaia Midwifery)  
 Speak Easy Rehabilitation, PLLC  
 SPEAR Physical Therapy & Occupational Therapy  
 Sports Therapy and Rehabilitation-  
 STAR Physical Therapy  
 St. John's Episcopal Hospital  
 St. Luke's-Roosevelt Hospital Center  
 Staten Island University Hospital  
 Stellar Physical & Occupational Therapy & Acupuncture, PLLC  
 Strivright Auditory Oral School of NY  
 SUNY Stony Brook University Hospital  
 Sure Medical Care, PC  
 Sutter Valley Hospitals  
 Texas Children Hospital  
 The Brooklyn Hospital Center  
 The Children's Learning Center (Brooklyn)  
 The Children's Learning Center at CP Nassau  
 The Guirguis Obstetrics & Gynecology Group  
 The Heartshare School  
 The Lang School  
 The Mount Sinai Hospital  
 The Mount Sinai Hospital of Queens  
 The New York-Presbyterian Hospital (all sites)  
 The New York-Presbyterian Hospital / Weill Cornell  
 The Rebecca School  
 TheraGen, LLC  
 TIRR Memorial Hermann  
 Total Urology Care of New York  
 Universal Institute of Rehabilitation & Nursing  
 University Professionals of Brooklyn, Inc. (UPB)  
 University Professionals of Brooklyn, inc. (UOA Physical Therapy)  
 Upper East Side Rehabilitation & Nursing Center  
 Urban Health Plan, Inc  
 Urban Resource Institute  
 VA Boston Healthcare System  
 Variety Child Learning Center  
 Vascular Institute of New York  
 VPS Medical PLLC, Aleksandr Sheteynberg, MD  
 Village Center for Care  
 Visiting Nurse Service of New York  
 Volunteers of America Staten Island  
 Volunteers of America-Bronx Early Learning Center  
 Weill Cornell Imaging at New York-Presbyterian  
 Weill Cornell Medical College (School/not Hosp.)  
 Williamsburg Infant & Early Childhood Development Center  
 Winthrop University Hospital  
 Women's Medical Services of New York, PC  
 Woodhull Hospital and Mental Health Center (HHC)  
 Wyckoff Heights Hospital  
 Yeled V'Yalda Early Childhood Center (PT & OT)

# Alphabetical Faculty Listing\*

Ahearn, Saren  
*DPT (Upstate Medical University), PT*  
*Clinical Assistant Professor*  
*Physical Therapy*

Antoine, Lorraine  
*DPT (Temple University), PT*  
*Assistant Professor*  
*Physical Therapy*

Black-Peart, Julie  
*MPAS (University of Nebraska), PA-C*  
*Clinical Assistant Professor*  
*Physician Assistant*

Brewington, Krystal  
*OTD (Concordia University-Wisconsin), OTR/L, CPAM*  
*Assistant Professor*  
*Occupational Therapy*

Brown, T'Shura  
*OTD (Chatham University), OTL*  
*Interim Chairperson*  
*Occupational Therapy*

Condon, Susanrachel  
*DM (Jefferson University), CNM, LM, FACNM*  
*Clinical Assistant Professor*  
*Midwifery*

DeOliveira, Shushawna  
*DHA (Central Michigan University)*  
*Associate Dean for Program Operations & Quality and*  
*Associate Professor*  
*School of Health Professions Dean's Office*

Desport, Brigitte  
*DPS (New York University), OTR/L, ATP*  
*Associate Dean of Strategic Initiatives and Associate Professor*  
*School of Health Professions Dean's Office*

Faysel, Mohammad  
*PhD (University of Medicine and Dentistry of New Jersey)*  
*Chairperson & Associate Professor*  
*Medical Informatics*

Haeri, Farhad  
*DPT (University of St. Augustine), PT, MTC, OCS*  
*Assistant Professor*  
*Physical Therapy*

Hellmann, Rivka  
*MS (SUNY Downstate Health Sciences University), RDMS Clinical*  
*Associate Professor & Clinical Coordinator*  
*Diagnostic Medical Imaging*

Jumbo, Adiebonye  
*PhD, (Rutgers University), ITIL*  
*Assistant Professor*  
*Diagnostic Medical Imaging*

Katz, Joanne  
*PhD (New York University), PT, DPT*  
*Chairperson and Associate Professor*  
*Physical Therapy*

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*PhD, (McGill University), FACMI*  
*Clinical Associate Professor*  
*Diagnostic Medical Imaging*

Kline, Nancy  
*PhD (New York University), OTR*  
*Assistant Professor*  
*Occupational Therapy*

Laffin, MaryAnne  
*MS (Pace University), RN, FNP, CNM, LM, FACNM*  
*Clinical Assistant Professor*  
*Midwifery*

Lewis, Allen Nelson, Jr.  
*PhD (Virginia Commonwealth University) Dean*  
*School of Health Professions*  
*Dean*

Lichtman, Ronnie  
*PhD (Columbia University), CNM, LM, FACNM*  
*Chairperson and Professor*  
*Midwifery*

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*MBA (Colorado Technical University), PA-C*  
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*Physician Assistant*

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*MPAS (University of Nebraska), PA-C*  
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*Physician Assistant*

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*MS (York College), OTR/L, ATP, CAS*  
*Assistant Professor*  
*Occupational Therapy*

Perchik, Edward  
*MBA (Wagner College), PA-C*  
*Assistant Professor*  
*Physician Assistant*

Pessin, Yosefa Joy  
*MS, (SUNY, Albany) RDMS, RDCS, RVT*  
*Chairperson*  
*Associate Professor*  
*Diagnostic Medical Imaging*

Ruiz, Edison  
*MPH (Brooklyn College), PA-C*  
*Assistant Professor*  
*Physician Assistant*

Sabel, Richard  
*MA (New York University), MPH (University of Texas), OTR, GCFP*  
*Clinical Assistant Professor*  
*Occupational Therapy*

Sanassi, Lorraine  
*DHSc (Nova Southeastern University), MHS, PA-C*  
*Clinical Assistant Professor*  
*Physician Assistant*

Saudi, Abdallah  
*MD (Technological University of Santiago – School of Medicine)*  
*Assistant Professor*  
*Physician Assistant*

Sofer, Roslyn  
*PhD (Touro University)*  
*PT, DPT, OCS Clinical Instructor*  
*Physical Therapy*

Struk, Iryna  
*BS, (SUNY Downstate Health Sciences University), RDMS, RDCS,*  
*RVT*  
*Clinical Assistant Professor*  
*Diagnostic Medical Imaging*

Thomas, Jasmin  
*MS (Utica College), OTR/L*  
*Academic Fieldwork Coordinator and Assistant Professor*  
*Occupational Therapy*

Torre, Dennis  
*PhD (Seton Hall University) PT*  
*Assistant Professor*  
*Physical Therapy*

Tribble, Daurin  
*MS (SUNY Downstate Medical Center), OTR/L*  
*Clinical Assistant Professor*  
*Occupational Therapy*

Trimmingham, Andrea  
*MA (Queens College), PA-C*  
*Chairperson and Clinical Assistant Professor*  
*Physician Assistant*

Wiggins, Shakima  
*MS (SUNY Downstate Health Sciences University, CNM, LM*  
*Clinical Assistant Professor*  
*Midwifery*

Zuccaro, Toni  
*PhD (Temple University), PT, NCS*  
*Clinical Assistant Professor*  
*Physical Therapy*

*\*Principal faculty as of January 2022*



# State University of New York

The State University of New York's geographically dispersed campuses bring educational opportunities within commuting distance of virtually all New Yorkers and make up the nation's most diverse system of public higher education.

The State University of New York's 64 campuses are divided into four categories, based on educational mission, the kinds of opportunities available, and degrees offered.

SUNY offers students a wide diversity of educational options: short-term vocational/technical courses, certificate programs, associate degree programs, baccalaureate degree programs, graduate degrees, and postdoctoral studies. SUNY offers access to almost every field of academic or professional study somewhere within the system—some 6,688 degree and certificate programs overall.

Students pursue traditional study in classrooms and laboratories or work from home, at their own pace, through such innovative institutions as the SUNY Learning Network and Empire State College.

SUNY's students are predominantly New York State residents, representing every one of the state's 62 counties. SUNY students also come from every other state in the United States, from four U.S. territories or possessions, and 171 foreign countries.

SUNY enrolls 40 percent of all New York State high-school graduates and has a total enrollment of nearly 468,000 students. SUNY students represent the society that surrounds them. More than 21 percent of all students are minorities.

SUNY numbers more than 3 million graduates on its rolls. The majority of SUNY's alumni reside and pursue careers in communities across New York State, contributing to the economic and social vitality of its people.

SUNY is committed to bringing its students the very best and brightest scholars, scientists, artists, and professionals. SUNY campuses boast nationally and internationally recognized figures in all the major disciplines. Their efforts are regularly recognized in numerous prestigious awards and honors.

# State University Campuses

## University Centers

University at Albany  
Binghamton University  
University at Buffalo  
Stony Brook University

## University Colleges

Brockport  
Buffalo State  
Cortland  
Empire State College  
Fredonia  
Geneseo  
New Paltz  
Old Westbury  
Oneonta  
Oswego  
Plattsburgh  
Potsdam  
Purchase College

## Health Sciences Centers

Downstate Health Science University  
Upstate Medical University  
Health Science Center at Buffalo\* Health  
Science Center at Stony Brook\*

## Colleges of Technology

Alfred State College  
Canton  
Cobleskill  
Delhi  
Farmingdale State College  
Maritime College

## Specialized Colleges

College of Environmental Science and Forestry  
Maritime College  
College of Optometry

## Statutory Colleges \*\*

New York State College of Agriculture and Life Sciences at  
Cornell University  
New York State College of Ceramics at Alfred University  
New York State College of Human Ecology at  
Cornell University  
New York State School of Industrial and Labor Relations at  
Cornell University  
New York State College of Veterinary Medicine at  
Cornell University

## Community Colleges

Adirondack  
Broome Community College  
Cayuga Community College  
Clinton Community College  
Columbia-Greene Community College  
Corning Community College  
Dutchess Community College  
Erie Community College  
Fashion Institute of Technology  
Finger Lakes Community College  
Fulton-Montgomery Community College  
Genesee Community College  
Herkimer County Community College  
Hudson Valley Community College  
Jamestown Community College  
Jefferson Community College  
Mohawk Valley Community College  
Monroe Community College at Rochester  
Nassau Community College  
Niagara County Community College  
North Country Community College  
Onondaga Community College  
Orange County Community College  
Rockland Community College at Suffern  
Schenectady County Community College  
Suffolk County Community College  
Sullivan County Community College  
Tompkins Cortland Community College  
Ulster County Community College  
Westchester Community College

\*The Health Science Centers at Buffalo and Stony Brook are operated under the administration of their respective university centers

\*\*These operate as contract colleges on the campuses of independent universities.

## EDUCATIONAL RIGHTS\*

The Family Educational Rights and Privacy Act of 1974 protect the rights of students to inspect and review certain educational records and prohibit the non-consensual release of personally identifiable information from such records which is not "directory information." Students currently enrolled at Downstate may object to the release of certain categories of directory information pertaining to them by providing written notification to the Dean's Office of their college within 14 days following the first day of classes. The categories of directory information at Downstate are:

- Name address, telephone numbers, dates of attendance
- Previous institutions, major field of study, degrees conferred
- Past and present participation in officially recognized activities, student photo, date, and place of birth

The failure of any student to object specifically to the release of certain or all categories of directory information within the time indicated is interpreted as approval. Please see policy "Family Education Right and Privacy Act" in the *Student Handbook* for further information.

## EDUCATION LAW

The following applies to students who are unable to attend classes on certain days because of their religious beliefs: Sect. 224-a. (New York State Education Law).

1. No person shall be expelled from or be refused admission as a student to an institution of higher education for the reason that s/he is unable, because of religious beliefs, to register or attend classes or to participate in an examination, study, or work requirement on a particular day or days.

2. Any student in an institution of higher education who is unable, because of his or her religious beliefs, to attend classes on a particular day or days shall, because of such absence on the particular day or days, be excused from any examination or any study or work requirements.

3. It shall be the responsibility of the faculty and of the administrative officials of each institution of higher education to make available to each student who is absent from school because of his or her religious beliefs an equivalent opportunity to register for classes or make up an examination, study, or work requirements which he or she may have missed because of such absence on any particular day or days. No fees of any kind shall be charged by the institution for making available to the said student such equivalent opportunity.

4. If registration, classes, examinations, study, or work requirements are held on Friday after 4:00 p.m. or on Saturday, similar or make-up classes

4. If registration, classes, examinations, study, or work requirements are held on Friday after 4:00 p.m. or on Saturday, similar or make-up classes examination, study, or work requirements, or opportunity to register shall be made available on other days, where it is possible and practicable to do so. No special fees shall be charged to the student for these classes, examinations, study, or work requirements, or registration held on other days.

5. In effectuating the provisions of this section, it shall be the duty of the faculty and the administrative officials of each institution of higher education to exercise the fullest measure of good faith. No adverse or prejudicial effects shall result to any student because of his or her availing himself or herself of the provision of this section.

6. Any student who is aggrieved by the alleged failure of any faculty or administrative officials to comply in good faith with the provisions of this section shall be entitled to maintain an action or proceeding in the supreme court of the country in which such institution of higher education is located for the enforcement of his or her rights under this section.

7-a. It shall be the responsibility of the administrative officials of each institution of higher education to give written notice to students of their rights under this section forming them that each student who is absent from school, because of his or her religious beliefs, must be given an equivalent opportunity to register for the class- es or make up any examination, study or work requirements which he or she may have missed because of such absence on any particular day or days. No fees of any kind shall be charged by the institution for making available to such student such equivalent opportunity.

8. As used in this section, the term "institution of higher education" shall mean any institution of higher education, recognized and approved by the Regents of the University of the State of New York, which provides a course of study leading to the granting of a post-secondary degree or diploma. Such term shall not include any institution which is operated, supervised, or controlled by a church or by a religious denominational organization whose educational programs are principally designated for the purpose of training ministers or other religious functionaries or for the purpose of propagating religious doctrines. As used in this section, the term "religious belief" shall mean beliefs associated with any corporation organized and operated exclusively for religious purposes, which is not disqualified for tax exemption under section 501 of the United States Code.

\* See the *Student Handbook* for a full description of student rights.

SUNY Downstate reserves the right to alter the existing rules and regulations, and academic programs, as deemed necessary by the institution. SUNY Downstate expressly reserves the right, whenever deemed advisable: (1) to change or modify its schedule of tuition and fees; (2) to withdraw, cancel, or reschedule, or modify any course, a program of study, degree or any requirement or policy in connection with the foregoing; and (3) to change or modify any academic or other policy.

Essential changes of information in this Bulletin concerning new academic regulations, policies, or programs will be published in newsletters or other University publications. It is the responsibility of each student to ascertain current information that pertains to the individual's program, particularly with regard to satisfaction of degree requirements by consultation with the student's advisor, the student's program, the office of the student's dean, the Office of Student Affairs, the Registrar's Office, and other offices as appropriate. In preparing this Bulletin, every effort has been made to provide pertinent and accurate information; however, SUNY Downstate Health Sciences University assumes no liability for Bulletin errors or omissions. The State University of New York Downstate Health Science Center does not discriminate on the basis of race, sex, sexual orientation, color, creed, age, national origin, handicap, religion, marital status, or status as a disabled veteran or veteran of the Vietnam era in the recruitment and employment of faculty or staff, in the recruitment of students, or the operation of any of its programs and activities, as specified by Federal and State laws or regulations. Applications are encouraged and welcomed from New York State residents, out-of-state students, and members of underrepresented minority groups. New York State residents receive preference for admission.

Note: The contents of this Bulletin are applicable to students entering Summer 2022 and beyond.

# State University of New York Downstate Health Sciences University

SUNY Downstate Health Sciences University  
450 Clarkson Avenue  
Brooklyn, NY 11203

- College of Medicine
- School of Graduate Studies
- School of Health Professions
- School of Public Health
- College of Nursing

## **ADMISSIONS**

### **School of Health Professions**

Phone: (718) 270-2446; Fax: (718) 270-4775  
[admissions@downstate.edu](mailto:admissions@downstate.edu)

## **FINANCIAL AID**

Phone: (718) 270-2488; Fax: (718) 270-7592  
[FinancialAid@downstate.edu](mailto:FinancialAid@downstate.edu)

## **ADDITIONAL INFORMATION**

Office of Diversity Education & Research  
(718) 270-3033  
[diversityprograms@downstate.edu](mailto:diversityprograms@downstate.edu)

## **RESIDENTIAL LIFE AND SERVICES**

Phone: (718) 270-1466; Fax: (718) 270-1466  
[residentialLife@downstate.edu](mailto:residentialLife@downstate.edu)

## **WEBSITE**

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

## **E-MAIL**

Diagnostic Medical Imaging: [admissions@downstate.edu](mailto:admissions@downstate.edu)

Medical Informatics: [Informatics.CHHP@downstate.edu](mailto:Informatics.CHHP@downstate.edu)

Midwifery: [Midwifery.SOHP@downstate.edu](mailto:Midwifery.SOHP@downstate.edu)

Occupational Therapy: [OT.SOHP@downstate.edu](mailto:OT.SOHP@downstate.edu)

Physical Therapy: [admissions@downstate.edu](mailto:admissions@downstate.edu)

Physician Assistant: [PA.SOHP@downstate.edu](mailto:PA.SOHP@downstate.edu)

Bulletin is produced by the Office of Institutional Advancement, Office of Student Affairs, and the School of Health Professions. The contents of this Bulletin are applicable to students entering Summer 2022 and beyond.



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## W

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 Bookstore <https://www.downstate.edu/about/our-administration/finance/faculty-student-association/bookstore/index.html>

**Bursar’s Office**, see Student Handbook, page 19  
<https://www.downstate.edu/education-training/student-services/bursar/>

### Academic Calendars

<https://www.downstate.edu/education-training/academic-calendars/sohp.html>

**Office of Diversity & Inclusion**, see Student Handbook, p 31  
<https://www.downstate.edu/about/our-administration/diversity/index.html>

### Faculty Student Association

<https://www.downstate.edu/about/our-administration/finance/faculty-student-association/>

### Financial Aid

<https://www.downstate.edu/education-training/student-services/financial-aid/>  
 Library

<https://www.downstate.edu/research/medical-research-library/index.html>

### Programs of Study

#### Diagnostic Medical Imaging

<https://www.downstate.edu/education-training/student-services/registrar/programs-of-study/school-of-health-professions/diagnostic-medical-imaging.html>

#### Medical Informatics

<https://www.downstate.edu/education-training/student-services/registrar/programs-of-study/school-of-health-professions/medical-informatics.html>

#### Midwifery – Master of Science

<https://www.downstate.edu/education-training/student-services/registrar/programs-of-study/school-of-health-professions/midwifery.html>

#### Midwifery – Advanced Certificate

<https://www.downstate.edu/education-training/student-services/registrar/programs-of-study/school-of-health-professions/advanced-midwifery.html>

#### Occupational Therapy

<https://www.downstate.edu/education-training/student-services/registrar/programs-of-study/school-of-health-professions/occupational-therapy.html>

<https://www.downstate.edu/education-training/student-services/registrar/programs-of-study/school-of-health-professions/occupational-therapy.html>

#### Physical Therapy

<https://www.downstate.edu/education-training/student-services/registrar/programs-of-study/school-of-health-professions/physical-therapy.html>

#### Physician Assistant

<https://www.downstate.edu/education-training/student-services/registrar/programs-of-study/school-of-health-professions/physician-assistant.html>

#### Registrar, Office of

<https://www.downstate.edu/education-training/student-services/registrar/>

#### Residential Life

<https://www.downstate.edu/education-training/student-services/residential-life/>

#### Student Affairs, Office of

<https://www.downstate.edu/education-training/student-affairs/index.html>

#### Student Center

<https://www.downstate.edu/education-training/student-services/student-center/index.html>

#### Student Handbook

<https://www.downstate.edu/education-training/student-affairs/student-handbook.html>

#### Support Services for Students

Academic Support Services & Advisement  
<https://www.downstate.edu/education-training/student-services/academic-support/index.html/>

#### Student Health

<https://www.downstate.edu/education-training/student-services/student-health/index.html>

#### Student Counseling

<https://www.downstate.edu/education-training/student-services/student-counseling/index.html>

#### Tuition and Fees (Bursar’s Office)

<https://www.downstate.edu/education-training/student-services/bursar/tuition-fees.html>

**University Police**, see Student Handbook, p 32

<https://www.downstate.edu/about/our-administration/university-police/index.html>