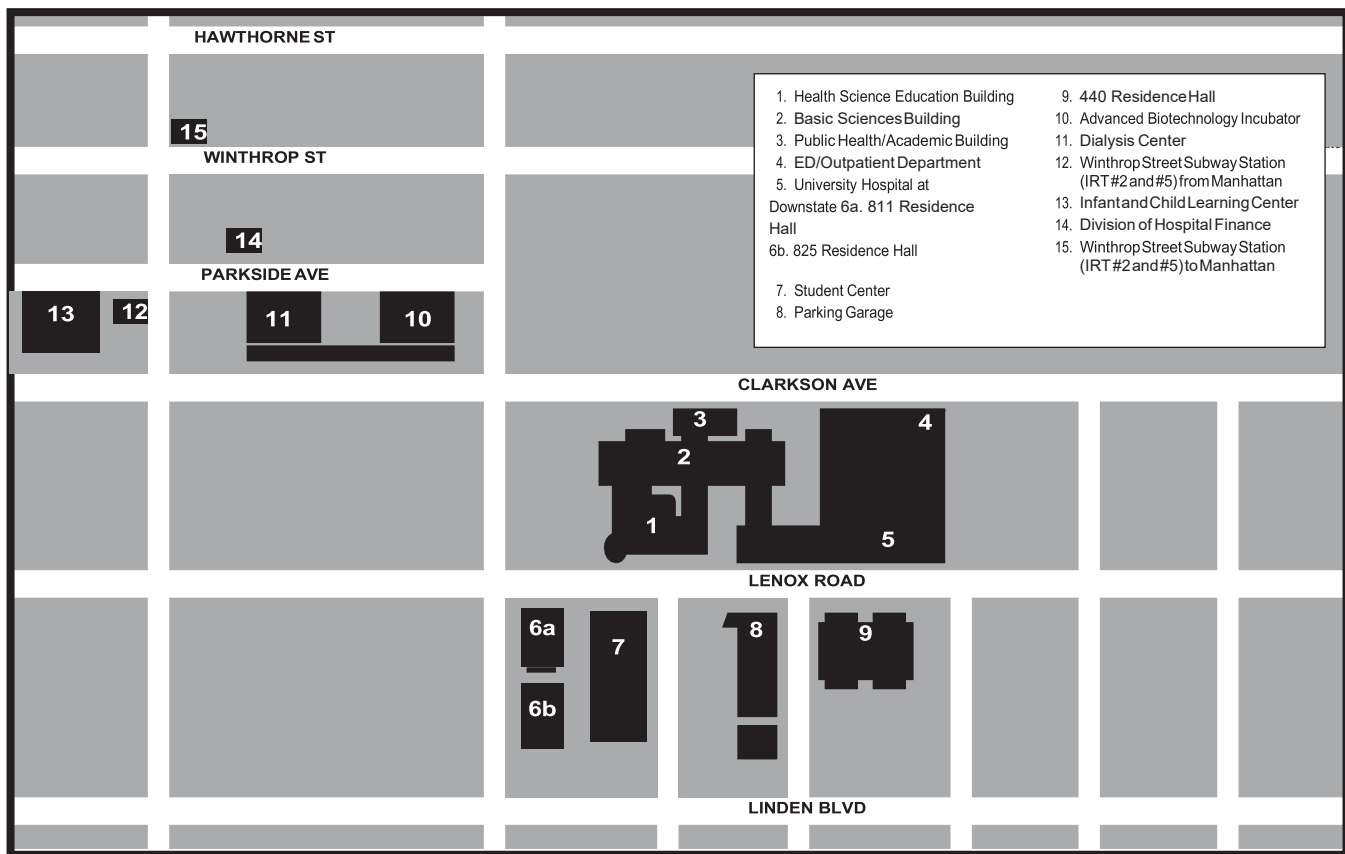


School of Health Professions
School Catalog 2025-2029



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.

INTRODUCTION

Administration	5
SUNY Downstate Health Sciences University	6
Mission, Vision, and Values	6
The Founding of SUNY Downstate	7

SCHOOL OF HEALTH PROFESSIONS

Mission and Educational Environment	9
Admissions	10
Academic Programs	17
Applied Behavior Analysis	18
Diagnostic Medical Sonography	18
Health Informatics	22
Midwifery	24
Occupational Therapy	28
Physical Therapy	31
Physician Assistant	37
Teaching Facilities	43
Clinical Care Facilities	44
School of Health Professions Faculty	47

STATE UNIVERSITY OF NEW YORK

SUNY Overview	49
State University Campuses	50

EDUCATIONAL RIGHTS AND EDUCATION LAW.....51

CONTACTS 55

INDEX..... 56

FOR THE FOLLOWING INFORMATION, PLEASE REFER TO THE DOWNSTATE WEBSITE AND THE STUDENT HANDBOOK:

Academic Policies
Student Conduct
Student Financial Aid
Support Services for Students
Tuition and Fees
University Resources
Facilities for Instruction
Student Life
University Services
Bookstore
Bursar's Office
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

See Index for specific page numbers and links.

Administration

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

STATE UNIVERSITY OF NEW YORK

Deborah F. Stanley
Interim Chancellor

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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. Certificate, 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 Applied Behavior Analysis (MS and Advanced Certificate), Diagnostic Medical Sonography (Certificate), Health Informatics (MS and Advanced Certificate), Midwifery (MS and Advanced Certificate), Occupational Therapy (MS and OTD), 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 coursework 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 coursework and participation in 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. 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/>

APPLIED BEHAVIOR ANALYSIS

Master of Science Criteria

Distance Education

Full-Time & Part-Time Option

1. A baccalaureate degree in any discipline from colleges or universities accredited by one of the following: The Middle States Commission on Higher Education (MSCHE), the New England Commission on Higher Education (NECHE), The Higher Learning Commission (HLC), the Northwest Commission on Colleges and Universities (NWCCU), the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the Western Association of Schools and Colleges (WASC) Senior College and University Commission (WSCUC) or the Accrediting Commission for Community and Junior Colleges (ACCJC), United States Department of Education (USDE). 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 from a Professor or an employer/supervisor/leadership at the place of employment. Please visit the [application instructions](#) to learn more about the letter of recommendation requirement.
3. A minimum, cumulative undergraduate Grade Point Average (GPA) of 3.0 on a 4.0 scale
4. CV or Resume
5. An interview with an Applied Behavior Analysis Program faculty

Advanced Certificate Criteria

Distance Education

Synchronous/Part-Time

1. A master's or doctoral degree in any discipline from colleges or universities accredited by one of the following: The Middle States Commission on Higher Education (MSCHE), the New England Commission on Higher Education (NECHE), The Higher Learning Commission (HLC), the Northwest Commission on Colleges and Universities (NWCCU), the Southern Association of Colleges and Schools Commission on Colleges

(SACSCOC), the Western Association of Schools and Colleges (WASC) Senior College and University Commission (WSCUC) or the Accrediting Commission for Community and Junior Colleges (ACCJC), United States Department of Education (USDE). 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 the exclusive use of electronic recommendation submissions. Letters should be from a professor or an employer/supervisor/leader at your place of employment. Please visit the [application instructions](#) to learn more about the letter of recommendation requirement.
3. A minimum cumulative graduate Grade Point Average (GPA) of 3.0 on a 4.0 scale.
4. CV or Resume
5. An interview with an Applied Behavior Analysis Program faculty

DIAGNOSTIC MEDICAL SONOGRAPHY

Certificate

1. A minimum of 23 college prerequisites credits from colleges or universities accredited by one of the following: The Middle States Commission on Higher Education (MSCHE), the New England Commission on Higher Education (NECHE), The Higher Learning Commission (HLC), the Northwest Commission on Colleges and Universities (NWCCU), the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the Western Association of Schools and Colleges (WASC) Senior College and University Commission (WSCUC) or the Accrediting Commission for Community and Junior Colleges (ACCJC), United States Department of Education (USDE). 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 & Science cumulative Grade Point Average (GPA) of 2.75 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.

4. 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 letterhead and signed by the supervisor in the medical setting where you volunteered.

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
Medical Terminology**	3
General Physics	3
College Mathematics or Statistics (not Remedial Math)	3
English/Communications	6

* All science courses must have labs

** *must be less than 6 years old*

Note: If accepted, CPR certification is required by August 15 of your planned year of matriculation. The DMS Program accepts the following courses: 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.

HEALTH INFORMATICS

Master's of Science Criteria In-Person/Distance Education Full-Time & Part-Time Option

1. A baccalaureate degree in any discipline from colleges or universities accredited by one of the following: The Middle States Commission on Higher Education (MSCHE), the New England Commission on Higher Education (NECHE), The Higher Learning Commission (HLC), the Northwest Commission on Colleges and Universities (NWCCU), the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the Western Association of Schools and Colleges (WASC) Senior College and University Commission (WSCUC) or the Accrediting Commission for Community and Junior Colleges (ACCJC), United States

Department of Education (USDE). 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

Advanced Certificate Criteria Distance Education Full-Time & Part-Time Option

1. A baccalaureate degree in any discipline from colleges or universities accredited by one of the following: The Middle States Commission on Higher Education (MSCHE), the New England Commission on Higher Education (NECHE), The Higher Learning Commission (HLC), the Northwest Commission on Colleges and Universities (NWCCU), the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the Western Association of Schools and Colleges (WASC) Senior College and University Commission (WSCUC) or the Accrediting Commission for Community and Junior Colleges (ACCJC), United States Department of Education (USDE). 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 one letter 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.

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.

Master of Science, Midwifery

1. A baccalaureate degree in any discipline from colleges or universities accredited by one of the following: The Middle States Commission on Higher Education (MSCHE), the New England Commission on Higher Education (NECHE), The Higher Learning Commission (HLC), the

Northwest Commission on Colleges and Universities (NWCCU), the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the Western Association of Schools and Colleges (WASC) Senior College and University Commission (WSCUC) or the Accrediting Commission for Community and Junior Colleges (ACCJC), United States Department of Education (USDE). 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. The letters should be from: 1) 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. Please visit the [application instructions](#) to learn more about the letters of recommendation requirements.

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: (RNs are exempt from prerequisite courses).

SUBJECT	CREDITS
Anatomy & Physiology w/labs	2 semesters
General Biology/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* or Developmental Psychology	1 course
Statistics	1 course

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

OPTION FOR MIDWIVES

Master of Science Completion, Midwifery

1. A baccalaureate degree in any discipline from colleges or universities accredited by one of the following: The Middle States Commission on Higher Education (MSCHE), the New England Commission on Higher Education (NECHE), The Higher Learning Commission (HLC), the Northwest Commission on Colleges and Universities (NWCCU), the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the Western Association of Schools and Colleges (WASC) Senior College and University Commission (WSCUC) or the Accrediting Commission for Community and Junior Colleges (ACCJC), United States Department of

Education (USDE). 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. The letters should be from: 1) 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. Please visit the [application instructions](#) to learn more about the letters of recommendation requirements.
3. Graduate of an accredited midwifery education program (CNM, CM).
4. A minimum cumulative Grade Point Average (GPA) of 3.0 on a 4.0 scale.

Advanced Certificate

A master's degree in a related field (as determined by the Midwifery faculty from colleges or universities accredited by one of the following: The Middle States Commission on Higher Education (MSCHE), the New England Commission on Higher Education (NECHE), The Higher Learning Commission (HLC), the Northwest Commission on Colleges and Universities (NWCCU), the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the Western Association of Schools and Colleges (WASC) Senior College and University Commission (WSCUC) or the Accrediting Commission for Community and Junior Colleges (ACCJC), United States Department of Education (USDE). 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. The letters should be from: 1) 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. Please visit the [application instructions](#) to learn more about the letters of recommendation requirements.
3. A minimum cumulative Grade Point Average (GPA) of 3.0 on a 4.0 scale
4. A grade of "C" or better in the following prerequisite courses: (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. Course must cover from birth to aging	

OCCUPATIONAL THERAPY Master's of Science Criteria

1. A baccalaureate degree in any discipline from colleges or universities accredited by one of the following: The Middle States Commission on Higher Education (MSCHE), the New England Commission on Higher Education (NECHE), The Higher Learning Commission (HLC), the Northwest Commission on Colleges and Universities (NWCCU), the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the Western Association of Schools and Colleges (WASC) Senior College and University Commission (WSCUC) or the Accrediting Commission for Community and Junior Colleges (ACCJC), United States Department of Education (USDE). 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 or	

Physics 1 w/lab/Kinesiology w/lab*	3-4
Statistics	3
Sociology or Anthropology	3
General Psychology	3
Abnormal Psychology	3
Developmental/Life Span Psychology** or	
Child Psychology & Adult Development	
or Child Psychology & Psychology	
of Aging	3-6

* Beginning with the 2027 incoming class, Physics/Kinesiology course (w/lab; 3-4 credits) will become a mandatory prerequisite.

** 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:

- i. Volunteer experience in a clinical setting related to Health . **No specific number of hours is mandatory, but knowledge of the profession is required.**
- ii. Completed/plan to complete a Physics /Kinesiology course with Lab 3-4 credits prior to matriculation and who have completed the science prerequisites within the past 5 years.
- iii. Engaged in interactive classroom and extracurricular activities during their undergraduate college experience.
- iv. Note: The Occupational Therapy program **strongly prefers** science courses completed in a classroom setting with wet lab

Post-Professional Doctorate Criteria

1. A Master's degree in Occupational Therapy from colleges or universities accredited by one of the following: The Middle States Commission on Higher Education (MSCHE), the New England Commission on Higher Education (NECHE), The Higher Learning Commission (HLC), the Northwest Commission on Colleges and Universities (NWCCU), the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the Western Association of Schools and Colleges (WASC) Senior College and University Commission (WSCUC) or the Accrediting Commission for Community and Junior Colleges (ACCJC), United States Department of Education (USDE). 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. Current license to practice as an Occupational Therapist in a US

jurisdiction

3. Current National Board for Certification of Occupational Therapists (NBCOT) registration
4. 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 Professor or an employer/supervisor at your place of employment. Please visit the [application instructions](#) to learn more about the letter of recommendations requirement.
5. Resume or Curriculum Vitae

PHYSICAL THERAPY Bachelors/Doctorate Criteria

1. A minimum of 80 semester credits from colleges or universities accredited by one of the following: The Middle States Commission on Higher Education (MSCHE), the New England Commission on Higher Education (NECHE), The Higher Learning Commission (HLC), the Northwest Commission on Colleges and Universities (NWCCU), the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the Western Association of Schools and Colleges (WASC) Senior College and University Commission (WSCUC) or the Accrediting Commission for Community and Junior Colleges (ACCJC), United States Department of Education (USDE). 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 observation hours 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. Minimum scores on GRE of 150 verbal and 150 quantitative are preferred.
9. 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.

General Education Requirement
Prior to matriculation, you must have earned
a minimum of 80 credits, including a
minimum of 33 credits in Liberal Arts and
Sciences and 30 credits in at least seven of
the ten SUNY-GER subject areas and two
required competencies listed [here](#).

Four of the seven Knowledge and Skills
areas must be in:

- Communication: Written and Oral
- Diversity: Equity, Inclusion and Social Justice
- Mathematics and Quantitative Reasoning
- Natural Sciences and Scientific Reasoning

You must also demonstrate competencies in
two required core competencies:

- Critical Thinking and Reasoning
- Information Literacy.

The remaining credits can be obtained from
the other 6 knowledge and skill areas:
Humanities, Social Sciences, The Arts, US
History and Civic Engagement, World
History and Global Awareness, and World
Languages.

Note: The SUNY-GER is required for all
bachelor's degree candidates and the SUNY-
GER credits can simultaneously fulfill

requirements for LAS.

PHYSICIAN ASSISTANT Master's of Science Criteria

1. A baccalaureate degree in any discipline
from colleges or universities accredited by
one of the following: The Middle States
Commission on Higher Education
(MSCHE), the New England Commission
on Higher Education (NECHE), The
Higher Learning Commission (HLC), the
Northwest Commission on Colleges and
Universities (NWCCU), the Southern
Association of Colleges and Schools
Commission on Colleges (SACSCOC), the
Western Association of Schools and
Colleges (WASC) Senior College and
University Commission (WSCUC) or the
Accrediting Commission for Community
and Junior Colleges (ACCJC), United States
Department of Education (USDE). 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 must
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 "B" is the acceptable minimum in the following prerequisite courses. Competitive applicants are those who have earned "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/lab and General Biology 2 with lab	8
General Chemistry 1 w/lab & General Chemistry 2 w/lab	8
Microbiology (not Bacteriology) w/ lab	3
Mathematics (not Statistics)	3
General Psychology	3
Abnormal Psychology/Life Span Psychology*	3
English	6
Humanities or Social Science courses**	6
Two upper-division science courses***	6–8

- One must be in Biochemistry, Organic Chemistry, Pathophysiology, Genetics,

Pharmacology.

- (Research Science courses may not be used to fulfill this requirement)

* 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 coursework 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
- Neuroanatomy
- Nutrition
- Pathophysiology
- Pharmacology
- Statistics
- Or other upper-division biology courses at the 300–400 level

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.

Post Professional MS

1. Baccalaureate degree in PA education from an ARC-PA-accredited PA program or institution.
2. Applicants are required to hold a license to practice as a Physician Assistant.
3. Two letters of recommendation are

required. The letters must be from the following:

- i. A director of the Physician Assistant program from where you graduated, or a professional colleague
 - ii. 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:
 - i. Research Methods (any course in Research methodology will be reviewed for acceptance)
 - ii. 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. 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:

- Applied Behavior Analysis
- Diagnostic Medical Sonography
- Health 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 Colleges

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 are 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 *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

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

Excelsior College phone: (888) 647-2388
web: 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

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:

- Health 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.

In cases where an applicant presents a U.S. baccalaureate or master's degree that includes transfer credits from an international institution, the following policy shall apply:

a) Recognition of Prior Evaluation:

- If a regionally accredited U.S. institution has accepted transfer credits from an international institution and awarded a baccalaureate/master's degree based on those credits, our programs will recognize that evaluation as sufficient evidence of academic achievement.
- b) **Program-Level Evaluation:**
- If a program determines that coursework taken at an international institution are equivalent in content, credit hours, and academic rigor to what is offered in the program, and the international institution is recognized by an accrediting body that the program accepts, then the coursework may be eligible for transfer credit, subject to program review of the course syllabi, official transcripts, and other relevant documentation and approval by Committee on Admissions and Academic Standards (CAAS).
- c) **Transcript Requirements:**
- Applicants will not be required to provide an official transcript from the international institution if:
- The institution no longer exists and cannot issue official records.
 - The transfer credits are documented on the official transcript of a regionally accredited U.S. institution that awarded the degree, and the degree is equivalent to a U.S. baccalaureate, master's, or doctorate.
- d) **Documentation** Applicants must provide:
- An official transcript from colleges or universities accredited* by one of the following: The Middle States Commission on Higher Education (MSCHE), the New England Commission on Higher Education (NECHE), The Higher Learning Commission (HLC), the Northwest Commission on Colleges and Universities (NWCCU), the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the Western Association of Schools and Colleges (WASC) Senior College and University Commission (WSCUC) or the Accrediting Commission for Community and Junior Colleges (ACCJC), United States Department of Education (USDE) showing the awarded degree and any transfer credits.
 - If an international institution has permanently closed, the applicant must provide a written explanation/documentation confirming the closure of the institution. In cases where the applicant is unable to obtain such written confirmation, the application will be reviewed on a case-by-case basis by the Program Chair and the Committee on Admissions and Academic Standards.

- iii. Applicants who complete prerequisites or earn a degree at an international institution and whose grades, credits, or degree are not reflected on a US regionally accredited college/school/university will be required to submit a course-by-course, detailed educational credential evaluation. Requirements will be reviewed. The evaluation must be completed by a member of the National Association of Credential Evaluation Services (NACES). The evaluation must verify the equivalency of the international coursework/degree and confirm that all prerequisite requirements have been met. If a prerequisite grade is not reflected in the course-by-course evaluation, it will be reviewed on a case-by-case basis by the Program Chair and the Committee on Admissions and Academic Standards.
- e) **Exceptions and Appeals:** In rare cases where additional verification is required, the matter may be referred to the Committee on Admissions and Academic Standards (CAAS) for review. Applicants may also submit a formal appeal if they wish to contest a transfer credit decision. All appeals will be reviewed by CAAS, whose decision shall be final.

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: Health 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

Applied Behavior Analysis
admissions@downstate.edu

Diagnostic Medical Sonography:
admissions@downstate.edu

Health Informatics:
Informatics.SOHP@downstate.edu

Midwifery:
Midwifery.SOHP@downstate.edu

Occupational Therapy:
OT.SOHP@downstate.edu

Physical Therapy:

admissions@downstate.edu

Physician Assistant:
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 Applied Behavior Analysis, Diagnostic Medical Sonography, Health Informatics, Midwifery and Occupational Therapy programs begin in August of the academic year.

Early March: Deadline for Diagnostic Medical Sonography Mid-April: Deadline for Health Informatics

Mid-April: Deadline for Midwifery

Early submission of the application is highly recommended.

Academic Programs

- Applied Behavior Analysis
Master of Science and Advanced Certificate
- Diagnostic Medical Sonography
Certificate
- Health Informatics
Master of Science and Advanced Certificate
- Midwifery
Master of Science and Advanced Certificate
- Occupational Therapy Program
Master of Science & Doctorate
- 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) is included in the SUNY Downstate Health Sciences University and offers courses of study in Diagnostic Medical Sonography leading to a certificate with a pathway to degree completion with SUNY Empire. These programs are open to upper-division transfer students.

Master's degree programs are offered in Applied Behavior Analysis, Health Informatics, Occupational Therapy, Physician Assistant Studies, and Midwifery, along with a combined BS/DPT program in Health Sciences and Physical Therapy. The School of Health Professions also provides advanced certificates in Applied Behavior Analysis, Health Informatics, and Midwifery for both registered nurses and non-RNs.

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

Non-Credit Certificate Program

Diagnostic Medical Sonography .1225

Combined BS/DPT Program

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

Master of Science Programs

Health Informatics.....1299
Applied Behavior Analysis1299
Midwifery 1203.10
Occupational Therapy.....1208
Physician Assistant 1299.10

Doctorate Programs

Occupational Therapy.....1208

Advanced Certificate Programs

Applied Behavior Analysis1299
Health Informatics.....1299
Midwifery 1203.10

APPLIED BEHAVIOR ANALYSIS Masters of Science & Advanced Certificate

Chairperson and
Professor
Jason Vladeanu

Adjunct Faculty
Leif Albright

Applied behavior analysis (ABA) is not just a field of study. It's a game-changer. Recognized by experts in research and health services as one of the most evidence-based approaches for producing meaningful behavior change, ABA combines the rigor of science with the compassion of practice.

Behavior analysis is the scientific study of learning and behavior. The field includes both the experimental analysis of behavior (the basic science that has shaped our understanding of how behavior is learned and maintained) and applied behavior analysis (the practical application of those principles to improve socially significant behavior).

ABA uses systematic, data-driven methods to identify environmental factors that influence behavior and to design effective, ethical interventions. Practitioners provide services consistent with the established dimensions of ABA, such as conducting behavioral assessments, analyzing data, developing and overseeing behavior-analytic treatment plans, and training other to implement evidence-based interventions. Behavior analysts work with clients across the lifespan and in diverse settings, supporting goals such as enhancing communication and adaptive skills, reducing challenging behavior, and improving organizational performance.

SUNY Downstate offers two academic pathways in ABA, each designed to prepare students for professional practice while meeting coursework requirements toward the Board Certified Behavior Analyst® (BCBA®) credential and New York State licensure as a Licensed Behavior Analyst (LBA)*.

Master of Science in Applied Behavior Analysis (42 credits, ABAI-Recognized)

Established in 2024, the MS program is designed for students who hold a bachelor's degree and are seeking comprehensive graduate-level training in behavior analysis. It provides the full academic foundation for practice in educational, clinical, and community settings. The curriculum offers in-depth exposure to the principles of behavior, research methods, and applications to support individuals with autism spectrum disorder and other behavioral or developmental needs. Our program meets the behavior-analytic coursework requirements for those pursuing the BCBA Pathway 1 eligibility route. The program also includes a portion of the supervised fieldwork required for BCBA eligibility.

Advanced Certificate in Applied Behavior Analysis (21 credits; Limited-Time Program)

Launched in 2026, the Advanced Certificate is designed for professionals who already hold a master's degree or higher in a related field (e.g., psychology, education, social work). This certificate enables students to complete the ABA coursework requirements for BCBA certification and NYS licensure. Our program meets the behavior-analytic coursework requirements for those pursuing the BCBA Pathway 2 eligibility route. Offered for a limited period through the 2029–2030 academic year, the program addresses current workforce needs and expands access to specialized training in behavior analysis.

*Eligibility for certification and licensure requires meeting all coursework, supervised fieldwork, and examination requirements as specified by the *the Behavior Analyst Certification Board® and New York State*.

RECOGNITION

The Master of Science degree program in ABA at SUNY Downstate Health Sciences University is recognized as Tier 2a by the Association for Behavior Analysis International (ABAI). This recognition applies to the MS program only and does not extend to the Advanced Certificate program.

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 Applied Behavior Analysis program, student life, or the community.

Research Award – presented to a graduating student who conducted the best research project.

CAREER OPPORTUNITIES

Graduates of the ABA program are prepared for careers as behavior analysts, clinicians, supervisors, consultants, and program administrators across a wide range of settings. Most graduates work in clinical or educational environments, including schools, private practices, hospitals, and community-based programs that serve individuals with autism spectrum disorder and other developmental or behavioral needs. Graduates may also pursue careers in higher education and research, teaching future practitioners and contributing to the advancement of the science of behavior.

COURSE DESCRIPTIONS

The curriculum is reviewed periodically. Please consult the program webpage [https://www.downstate.edu/education-training/school-of-health-](https://www.downstate.edu/education-training/school-of-health-professions/programs/applied-behavior-analysis/curriculum/index.html)

[professions/programs/applied-behavior-analysis/curriculum/index.html](https://www.downstate.edu/education-training/school-of-health-professions/programs/applied-behavior-analysis/curriculum/index.html)

COURSE DESCRIPTIONS

The curriculum is reviewed periodically. Please consult the program webpage <https://www.downstate.edu/education-training/school-of-health-professions/programs/applied-behavior-analysis/curriculum/course-descriptions.html>

ABA 6001

Research Methods in Applied Behavior Analysis

This course provides an in-depth overview of research methodologies that utilize direct observation and single-case experimental designs commonly used in applied behavior analysis. Students will learn how behavior analysts establish functional relationships between environmental variables and behavior. Key content areas include (a) Measurement: Understanding and defining both independent and dependent variables; (b) Data Displays and Techniques for visually presenting data; (c) Interpretation: Analyzing and making sense of data; and (d) Experimental Design: Various research designs such as withdrawals, reversals, alternating treatments, multi-element, changing-criterion, and multiple-baseline designs. Additional topics cover considerations for using these designs, identifying behavior dimensions (e.g., rate, duration, latency, inter-response times), operational definitions, measurement procedures, interobserver agreement, reliability and validity, and Standard Celeration Charts. The course will also focus on making informed treatment decisions based on data presented in various formats. *Lecture. 3 credits.*

ABA 6002

Applied Behavior Analysis

This course is designed to introduce students to applied behavior analysis (ABA). It provides an overview of ABA's assumptions, characteristics, and goals. The course content focuses on introducing behavior analytic concepts and principles as they relate to everyday life. Students learn how to apply behavior-analytic procedures to change behavior and improve conditions for individuals and articulate the science of learning and behavior in both scientific and layman's terms. *Lecture. 3 credits.*

ABA 6003

Ethics & Professionalism in Behavior Analysis

This course offers a comprehensive understanding of how to analyze and apply behavior-analytic principles in a legal and ethical manner. Emphasizing professionalism, the curriculum covers the history of ethics in human services, ethical considerations for special populations, and the philosophical and theoretical foundations of ethics and morality. Additionally, students will explore the professional code of ethics specific to behavior analysis, ensuring they are well-equipped to uphold high standards of professional conduct in their practice. *Lecture. 3 credits.*

ABA 6004

Experimental Analysis of Behavior

In the Applied Behavior Analysis course, students learn how basic concepts and principles are applied to behaviors of social significance. During this course, students will examine the experimental analysis of behavior literature to learn about the origin of these concepts and principles. Students learn how basic behavior analysts study the functional relations between environment and behavior across a variety of species. Content includes basic learning processes (Pavlovian and operant conditioning), experimental tools, and approaches in basic behavioral research. *Lecture, 3 credits.*

ABA 6005 Functional Behavior Assessment & Intervention

This course will provide an overview of functional behavior assessment and function-based interventions for application in a wide range of settings. The purposes of this course are to: (a) provide students with a background in the seminal research in the area of functional assessment, (b) teach students to distinguish between the various types of functional assessment (i.e., indirect, descriptive, and experimental approaches), (c) teach students to identify the strengths and weaknesses of different functional assessment approaches, (d) familiarize students with methodological and procedural variations of experimental functional analysis, (e) teach students to critically evaluate functional assessment/treatment literature, and (f) to prepare students to conduct functional behavior assessments in practice. *Prerequisites: 6001, 6002 Lecture, 3 credits.*

ABA 6006 Verbal Behavior

Professionals who provide services based on the principles of behavior to support the needs of individuals with autism spectrum disorder (ASD) are required to use evidence-based assessment and intervention practices. A substantial portion of this practice will likely promote the development of language. Doing so requires an understanding of current conceptual developments in the analysis of verbal behavior and how those developments have and might be translated into applied practice for individuals with ASD. This class provides modern and practical content for individuals who work directly with individuals with ASD. This class introduces core verbal behavior concepts, principles, and approaches, covers the full spectrum of language repertoires, and includes consideration of interdisciplinary collaboration. *Prerequisites: 6001, 6002 Lecture, 3 credits.*

ABA 6007 Philosophy of Behaviorism

B.F. Skinner stands out as a key figure in 20th-century psychology, known for his Radical Behaviorism philosophy. Skinner's (and others') approach fundamentally challenges traditional psychological theories by insisting on a naturalistic scientific framework and practical application. Consequently, mainstream psychologists have often rejected his (and others') views and are misunderstood by the public. This course aims to demystify Skinner's (and others') theories on behavioral science and its philosophical

foundations, supporting the advancement of psychology as a natural science. *Lecture, 3 credits.*

ABA 6008 Organizational Behavior Management

This course will provide an overview of contemporary research and practice in organizational behavior management, including exposure to behavioral systems analysis, performance management, and behavior-based safety. This class aims to increase understanding and application of behavioral science in business, emphasizing human service organizations. Specific topics and activities will include organizational and systems-level analysis, identifying and measuring pinpoints, assessing performance problems, linking assessment to intervention, identifying interventions, social validity, rule-governed behavior, and supervision and mentorship. *Prerequisites: 6001, 6002 Lecture, 3 credits.*

ABA 6009 Thesis/Capstone in Applied Behavior Analysis I

This course is the first course in a three-course sequence in which a student will complete a thesis (or equivalent) project. This first course will focus on standards for scientific dissemination (e.g., writing, presenting) relevant to behavior analysis; additionally, students (in conjunction with their assigned thesis/capstone chair) will develop their project idea and begin writing their proposal. *Prerequisites: 6001, 6002, 6003, 6004, 6005 Lecture-Laboratory, 3 credits.*

ABA 6010 Thesis/Capstone in Applied Behavior Analysis II

This course is the second course in a three-course sequence in which a student will complete a thesis (or equivalent) project. During this second course, students (in conjunction with their assigned thesis/capstone chair) will complete their proposal, identify a committee, submit IRB documents (if applicable), orally defend their proposal, and begin data collection (if applicable). *Prerequisites: 6009 Lecture-Laboratory, 3 credits.*

ABA 6011 Thesis/Capstone in Applied Behavior Analysis III

This course is the third course in a three-course sequence in which a student will complete a thesis (or equivalent) project. During this third course, students (in conjunction with their assigned thesis/capstone chair) complete data collection (if applicable), write their final thesis/capstone document, and orally defend their project. *Prerequisites: 6010 Lecture-Laboratory, 3 credits.*

ABA 6012 Practicum in Applied Behavior Analysis I

This course is the first of a two-course sequence in which students will participate in fieldwork in an applied behavior analytic setting. For this first course, a total of 180 hours of fieldwork that includes applied behavior analytic assessments and interventions is required.

Prerequisites: 6001, 6002, 6003, 6004, 6005, 6006 Lecture-Laboratory, 3 credits.

ABA 6013 Practicum in Applied Behavior Analysis II

This course is the second of a two-course sequence in conducting fieldwork in applied behavior analytic settings. For this second course, a total of 180 hours of fieldwork that includes applied behavior analytic assessments and interventions is required. *Prerequisites: 6012 Lecture-Laboratory, 3 credits.*

ABA 6014 Professional Possibilities as a Practicing Behavior Analyst

There has been rapid advancement in the professionalization of the field of applied behavior analysis (ABA) over the last several decades. Much of this progress is likely attributable to the success in application to support the needs of individuals with autism spectrum disorder/autistic individuals. Yet, the power and potential of ABA is not in application to a specific area but to any area of social significance. This class will provide a modern, in-depth look at professional possibilities for practicing behavior analysts. This class will introduce a plethora of specialties and, for each specialty, review applicable conceptual and basic work, discuss how this work has been adopted for practical application, and end with guidance on skills and knowledge necessary for entering the relevant workforce. Specific industries covered may include pediatric feeding disorders, severe problem behavior, behavioral pediatrics/pediatric psychology, clinical behavior analysis, education, child maltreatment, juvenile correctional services, brain injury rehabilitation, behavioral gerontology, substance use, applied animal behavior, marketing/sales, physical fitness (sports psychology, health & fitness), public health, social work, social responsibility & sustainability, data science and other technology fields (UI/UX design, software development, robotics). *Prerequisites: 6001, 6002, 6003 Lecture, 3 Credits – Elective*

ABA 6015 Autism Interventions

This course is designed to provide an overview of autism spectrum disorder (ASD) and related disabilities and examines empirical literature regarding evidence- and non-evidence-based treatments. Students learn about the prevalence of ASD and related disabilities as well as diagnosis, assessment, and evidence-based treatments. This course also presents non-evidenced-based treatments as well as the implications associated with selecting treatments for individuals diagnosed with ASD or related disabilities. *Prerequisites: 6001, 6002, 6003 Lecture, 3 Credits – Elective*

DIAGNOSTIC MEDICAL SONOGRAPHY Certificate

Interim Chairperson and
Clinical Associate Professor
Iryna Struk

Medical Director
Harris L. Cohen

Clinical Assistant Professor
Yanlu Li, Richard Yannotta

Associate Professor (part-time)
Yosefa Pessin

Adjunct Faculty
Artur Babayan, , Rena Orman Sabina Gitlits, Rhonda Osborne, Lisa Furman

Clinical Instructor
Angela Abramov, Mohammed Abu-Sabe, Sadqua Ahmad, Daniel Appau, Kevin Barakat, Svetlana Bekmuratova, Paul Bezgryzyk, Jeannie Bomvino, Dionne Boreland, Tonya Brathwaite, Natalia Bulgakova, Steven Calvin, Alanna Camacho, Anthony Cinco, Taneille Clouden, Gina Conigliaro, Magalie Desinor, Varsha Dharja, Glenise Douglas, Jennifer Feldman, Lillia Frayman, Louis Grassi, Min Guang Liu, Vera Gurgova, Eris Halery, Anna Hamza, Thomas Hoffman, Ricky Hony, Probaakar Hosanagara, Steven Hua, Qiao Huang, Dana Ionescu, Jay Jacobs, Mariella Jimenez, Janice Johnson, Minsik Jung, Chrisoula Kalloudis, Jennifer Karr, Maya Kleyman, Alona Kogosov, Suneetha Kota, Arsen Kottri, Harry Mawze, Alwyn McCalla, Yabaira Medina, Milana Menabem, David Minsky, Jessica Moon, Robert Nicolosi, Connie O'Neill, Fay Perry, Beverly Prentice, Jaime Lee Prestano, Elena Prokopenko, Daniel Pudrud, Eleonora Rozman, Ella Rudyak, Dalia Sapozhnikov, Andrea Scherer, Judy Schwartz, Fernando Seoane, Gretta Sobol, Adetokunbo Soboyejo, Margarita Sokolovski, Jenna Southard, Rijka Stolzenberg, Tomonori Tamura, Blana Torres-Santiago, Dina Traub, Janet Uvaydova, Jill Vahab, Esther Vogel-Bass, Lancelot Walker, Jacqueline Williams, Esther Witkes, Connie Wong, Yong Ming Xian, Boris Yusim

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 Sonography 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.

Deverell 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 who can provide quality patient care in the medical community.

Membership in 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 Sonography 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 Statistics, employment for sonographers is expected to grow 13% by the year 2034.

COURSE DESCRIPTIONS

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

DIMC 3105

Human Anatomy & Physiology for the Sonographer

This course offers a comprehensive and integrated study of human anatomy and physiology, emphasizing the structure, function, and interrelationships of body systems essential to

diagnostic medical sonography. Students will explore the fundamental physical and chemical processes governing cells, tissues, organs, and organ systems, with particular focus on how these systems maintain homeostasis and respond to physiologic and environmental changes. The course covers major systems—including the nervous, endocrine, muscular, circulatory, respiratory, digestive, and reproductive systems—highlighting their relevance to sonographic practice. Emphasis is placed on understanding physiologic mechanisms and anatomic relationships as they relate to cardiovascular imaging, fetal biophysical profiling, and tissue characterization (benign vs. malignant). This foundational knowledge enables students to accurately identify normal anatomy, recognize pathologic conditions, and apply physiologic principles to real-world sonographic imaging. *60 hours.*

DIMC 3101 Abdominal Sonography I (Abdomen/Ob-Gyn)

This course offers a comprehensive study of abdominal and pelvic sonography, including sonographic anatomy, patient preparation, scanning techniques, and image interpretation. Students learn to identify normal and abnormal structures of the abdomen, male pelvis, and small parts, and to apply appropriate transducers, patient positioning, and imaging protocols. Emphasis is placed on developing communication, technical, and analytical skills essential for accurate diagnostic imaging and professional patient care. *Course co-requisites: DIMC 3110, DIMC 3235. Lecture. 45 hours.*

DIMC TBD Obstetric and Gynecologic Sonography I

This course provides a detailed study of obstetric and gynecologic sonography, focusing on the anatomy and pathology of the female pelvis and developing fetus. Students learn to perform and interpret both transabdominal and transvaginal sonographic examinations, recognizing normal and abnormal findings across all trimesters of pregnancy. Emphasis is placed on identifying gynecologic pathologies, applying fetal measurement techniques, and understanding the components of a biophysical profile. The course integrates clinical applications with image analysis to prepare students for advanced practice in obstetric and gynecologic ultrasound. *Course co-requisites: DIMC 3110, DIMC 3235. Lecture. 15 hours.*

DIMC 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. 45 hours.*

DIMC 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: DIMC 3101, DIMC 3110. 15 hours.*

DIMC 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 DMI Lab, being introduced to ultrasound equipment and basic imaging technique), hospitals, healthcare facilities, or educational sites. The clinical project is required. *Laboratory. Course co-requisite DIMC 3101. 104 hours.*

DIMC 3200 Abdominal Sonography II

This advanced course builds upon concepts introduced in Abdominal Sonography I, with emphasis on the evaluation of abdominal organs and related pathologies. Students will expand their knowledge of sonographic examination protocols, abnormal findings, and the correlation of clinical history with imaging results. The course introduces specialized applications of abdominal sonography, including contrast imaging techniques, breast sonography, pediatric sonography of the hip, spine, and gastrointestinal tract, as well as imaging of organ transplants. Emphasis is placed on developing advanced interpretive skills and clinical judgment for comprehensive patient assessment. *Lecture. Prerequisites: DIMC 3101, ANAT 3105, DIMC 3102, DIMC 3106, DIMC 3110, DIMC 3235, and co-requisites DIMC 3210, DIMC 3202. 15 hours.*

DIMC TBD Obstetric and Gynecologic Sonography II

This advanced course provides an in-depth study of obstetric and gynecologic sonography, emphasizing the evaluation of normal and abnormal findings across all stages of pregnancy and throughout the female reproductive system. Students learn comprehensive scanning protocols for pelvic and obstetric examinations, including the use of Doppler and 3D imaging techniques. Topics include uterine and adnexal pathology, multiple gestations, congenital anomalies, high-risk pregnancies, and fetal cardiac assessment. The course also explores the sonographic evaluation of the pediatric pelvis, fetal therapy applications, and the correlation of clinical history with imaging findings to support accurate diagnostic interpretation. *Lecture. Prerequisites: DIMC 3101, ANAT 3105, DIMC 3102, DIMC 3106, DIMC 3110, DIMC 3235, and co-requisites DIMC 3210, DIMC 3202. 45 hours.*

DIMC 3202 Sonographic Physics II

This course provides for 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: DIMC 3102; co-requisite: DIMC 3200. 45 hours..*

DIMC 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 explored 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. 30 hours.*

DIMC 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 is required. *Laboratory. DIMC 3101, DIMC 3102, DIMC 3105, DIMC 3106, and DIMC 3110. 304 hours.*

DIMC 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: DIMC 3105. Lecture-laboratory. 45 hours.*

DIMC 3235 Healthcare Ethics, Patient Assistance, and Quality Control

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. *15 hours.*

DIMC 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. 30 hours.

DIMC 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: DIMC 3110, DIMC 3200, and DIMC 3210. 240 hours.*

DIMC 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. 15 hours.*

DIMC 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. 15 hours.*

DIMC 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 DIMC 3101, DIMC 3200, and DIMC 4009 course co-requisite: DIMC 4110. 60 hours.*

DIMC 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: DIMC3105. 45 hours..*

DIMC 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 is required. *Prerequisites: DIMC 3110, DIMC 3210, DIMC 4009, and DIMC 4010. Co-requisite: DIMC 4104. 224 hours.*

DIMC 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. 30 hours.*

DIMC 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: DIC 4009, DIMC 4104. 22.5 hours.*

DIMC 4210

Clinical Internship V

Clinical Internship V is the fifth clinical experience in the Diagnostic Medical Sonography 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: DIMC 4110. 248 hours.*

DIMC 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 15 hours.*

DIMC 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 the 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: DIMC 4013. 15 hours.*

DIMC 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. 15-45 hours.*

DIMC 4220**Clinical Internship VI**

Clinical Internship VI is the final clinical experience in the Diagnostic Medical Sonography 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. 160 hours.

INDI5012**Brooklyn Free Clinic Experience****MSCI 4100****Research Methods**

HEALTH INFORMATICS

Master of Science Degree & Advanced Certificate

Chairperson and Associate Professor
Mohammad Faysel, PhD, FAMILA

Program Administrator
Shaneka John

Associate Professor
Adiebonye Jumbo, PhD, ITIL

Clinical Associate Professor
David R. Kaufman, PhD, FACMI

Adjunct and Clinical Faculty
Frank Luo, Jonathan Mahabir

Health Informatics is a cutting-edge field. It is a natural fit that supports all health professions. It is a new and developing discipline with an emphasis on technology as an integral tool to organize, analyze, manage, and use health information, clinical data, images, and knowledge for patient care, health education, administration and research.

Health informaticians integrate computerized health information databases that store clinical information, medical 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 public health surveillance. The curriculum in health 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 professionals, technologists, and administrators to maximize medical data management. Students also learn the use of new technologies in communication and information management, including electronic health records.

THE PROGRAM

The Health Informatics Master's Degree Program is a 39-credit (33 credit required and 6 credit elective) 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 program offers two options for program completion: traditional classroom setting and distance learning (online). A student must choose an option on the admission application and must maintain this option throughout the program completion if admitted into the program. The curriculum is identical for both options. The courses are sequenced to encompass an overview of the discipline and to develop competencies and skills required by the profession. The courses include database systems, healthcare standards and

interoperability, healthcare information system, health data analytics and visualization, human computer interaction, clinical internship, medical-decision making and a list of elective courses addressing current topics in various areas of health informatics. Students are required to conduct an independent research study in health 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 DHSU's website: <https://www.downstate.edu/education-training/school-of-health-professions/admissions/index.html>

GRADUATION HONORS and AWARDS

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 Health Informatics Program, profession, and the DHSU 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

Some of the job titles include Clinical Informatics Director, Health Information Administrator, Clinical Services Manager, Application Analyst, Clinical Analyst, Clinical Information Specialist, EMR Application Analyst, Decision Support Administrator, Clinical Information Specialist, Systems analyst, Application analysts, Chief Information Officer, Senior Systems Analyst, Healthcare Data Analyst, Quality Assurance Officer, Health Information Officer, EMR Project Analyst, Epic Analyst, Nursing Informatics Officer, Clinical Systems Integration Support Analyst, Clinical Systems Trainer, Data Analyst, Data Analyst, Epic Support Analyst, and Physician Office IT Coordinator.

COURSE DESCRIPTIONS

HINF 5001

Computer Programming for Health

Informatics and Data Science The purpose of this course is to review concepts of computer programming, specifically using Python programming language, and how to develop programs to solve practical problems. This course covers Python programming libraries and advanced programming techniques, especially in relation to data science-oriented application development that has practical use in health care settings. The course will also cover various Python programming techniques to connect to diverse databases, manipulate, analyze, and visualize health data. *Lecture and computer lab experience. 3 credits.*

HINF 5100

Introduction to Health Informatics

This course offers the fundamental principles, concepts, and technological elements that constitute the segments of health informatics and how technology can be applied in health care delivery. This course allows students to gain general perspectives from interdisciplinary studies and the competencies for graduate education in informatics. The topics covered in this course will include the definitions of informatics and related terms, computational systems thinking, information science and effective use of biomedical data, application of health information technology to healthcare, understanding of technological standards and informatics terminology, current issues in informatics, approach in problem-solving, and decision-making strategies. The knowledge and skills presented in this course will prepare students to progress to more advanced courses throughout the program curriculum. Students will engage in activities to explore the techniques in assessing current information practices, determining the information needs of health care professionals and patients, and effectively managing information using computer technology. *Lecture. 3 credits.*

HINF 5101

Database System Applications in Biomedicine

Due to the advancement and wide adoption of health information technologies, there is a proliferation of health-related data generated by various sources. Successfully capturing and storing these data in electronic format play a critical role in further health-related application development and decision making. This course is an overview of the fundamentals of relational database design and management. This course covers topics in entity-relationship (ER) modeling, database architecture, functional dependencies and relational design, relational algebra for basic query structure, and query design. Special emphasis is on Structured Query Language (SQL), query processing and basic database application development using Oracle relational database management systems (RDBMS). *Lecture and computer lab. 3 credit.*

HINF 5111

Research Methods and Biostatistics

This course aims to impart a critical perspective of, and an empirical familiarity with, the range of methods available to researchers in the field of Medical Informatics. Beginning with a review of basic issues regarding the formulation of research questions, research design, data collection and analysis, this course will provide an opportunity for you to advance your understanding of research through critical exploration of research language, ethics, and approaches. The course introduces the language of research, ethical principles and challenges, and the elements of the research process within quantitative, qualitative, and mixed methods approaches. Three themes will be explored: 1) the various advantages and disadvantages of each method, 2) when the use of one method is appropriate or inappropriate for the research question, and 3) how to evaluate researchers' claims on the basis of the evidence they present. These themes will be explored by reading examples of each of these methods as you gain experience using them on a paper that explores a topic of their choice. Emphasis is placed on identification of the core validities relating to experimental design, use of control techniques for relevant (confounding) variables and the relation between design and statistical power. The purpose of this course is to build on basic research skills and concepts. *Lecture and computer lab. 3 credits.*

HINF 5112

Medical Decision Making

This course aims to impart a critical perspective of, and an empirical familiarity with, the range of methods available to researchers in the field of Health Informatics. Beginning with a review of basic issues regarding the formulation of research questions, research design, data collection and analysis, this course will provide an opportunity for you to advance your understanding of research through critical exploration of research language, ethics, and approaches. The course introduces the language of research, ethical principles and challenges, and the elements of the research process within quantitative, qualitative, and mixed methods approaches. Three themes will be explored: 1) the various advantages and disadvantages of each method, 2) when the use of one method is appropriate or inappropriate for the research question, and 3) how to evaluate researchers' claims on the basis of the evidence they present. These themes will be explored by reading examples of each of these methods as you gain experience using them on a paper that explores a topic of their choice. Emphasis is placed on identification of the core validities relating to experimental design, use of control techniques for relevant (confounding) variables and the relation between design and statistical power. The purpose of this course is to build on basic research skills and concepts.

Lecture and computer lab. 3 credits. Elective

HINF 5113

Consumer Health Informatics

The role of the patient and consumer as a full partner in health promotion and disease management has never been of greater importance in the wake of the pandemic. Consumer health informatics (CHI) is the branch of medical informatics that: a) analyses consumer needs for information, b) studies of making information accessible to consumers and c) models and integrates consumers' preferences into health information systems and a broad-range of patient applications. A central tenet of consumer health informatics is that although not all patients will participate, patients participating in their health care leads to higher quality care than that which is achievable without patient participation. In this course, students will become familiar with a range of CHI applications across platforms. The course emphasizes a multi-disciplinary and user-centered approach for designing eHealth interventions using theories and principles from communication, information science, human-computer interaction, medicine, psychology, and public health. Students will also learn to assess the needs and technology practices of potential users, with a particular focus on groups that experience health disparities. *Lecture. 3 credits. Elective.*

HINF 5114

Health Information Standards and Interoperability

Timely sharing of accurate health information plays a key role in continuation of patient care and informed decision making in clinical settings. This course provides an in-depth overview of health information technology standards and terminologies that are essential for clinical data interoperability and exchange across diverse systems. Details of clinical data structure, relevant standards, terminologies, nomenclatures and ontologies, and clinical data interchange will be explored. Students will be also exposed to current and emergent standards such as FHIR or HL7 and how these standards are applied to achieve integrated health data interoperability and information exchange in healthcare settings. An overview of healthcare information network architecture and security as it applies to HIPAA regulation will also be provided in this course. *Lecture 3 credits.*

HINF 5115

Healthcare Data Analytics

Due to advancement and wide adoption of health information technologies, there is a proliferation of sources of biomedical and health related large data in electronic format. Timely and efficient processing of these data, and accurate interpretation and representation of analysis results play critical roles in health related decision making.

The purpose of this course is to prepare students in identifying, collecting and analyzing big data in healthcare setting. The course will explore the role of analysts and analytics in healthcare organizations. The course is designed to provide students hands-on use of analytical tools for data extraction and analysis. This course will also introduce students to the various data collection and processing methods in the delivery of meaningful data from patients to healthcare providers, administrators, etc. The course will begin with introduction to "big data" and then focus on how big data helps in informing healthcare analytics in ways not possible before. The course will also emphasize on diverse sources and uses of health related big data, various data types, classification procedures, and basic applied statistical methods and procedures commonly used in health related data analysis. Students will use software such as SAS, Tableau, or R to gain hands on experience in data acquisition, analysis, and reporting. *Lecture and computer lab. 3 credits. Elective.*

HINF 5116

Healthcare Data Visualization

This course focuses on the science of data visualization with the art of graphic design using Tableau to help communicate complex information effectively. It gives students the ability to articulate the theory, principles, methods, and techniques in data visualization while acquiring the visualization knowledge needed to solve real-world health problems. Students will be exposed to best practices on transforming data sets into visual graphics such as charts, bar graphs, scatterplots, and heatmaps and learning storytelling in presenting complex data to different audiences, which empowers decision-making. Through several hands-on activities, students will explore the different types of data presentations that provide insights to the users. Industry-level data visualization software such as Tableau will be used throughout the semester for the hands-on exercises. *Lecture and computer lab. 3 credits. Elective.*

HINF 5118

Project Management and Healthcare Operations Recent advancements in integrating health information technology (HIT) to transform healthcare delivery require a unique approach for the management and administration of health information technology and informatics projects. To prepare students for such challenging integrated project management and seamless operation of healthcare, this course covers an overview of knowledge areas and tools necessary for successful management and completion of HIT related projects. Starting from project pre-initiation and selection process, this course also stresses on the life cycle of health care information technology (HIT) projects and how to apply appropriate knowledge areas during various phases of HIT project's life cycle while ensuring seamless

operation of healthcare services. Students will learn relevant topics necessary to understand healthcare information systems and their design, integration and implementation in clinical practice. Students are expected to complete a semester long team project relevant to HIT.

Lecture. 3 credits. Elective.

HINF 5119

Public Health Informatics and Population Health

GIS provides an effective way to visualize, organize, and manage a wide variety of information, including administrative and medical data, social services, and patient data as it relates to population health. Public health agencies are also using GIS to map health-related events, identify disease clusters, investigate environmental health problems, and understand the spread of communicable and infectious diseases. This course focuses on Geographic Information Systems (GIS) and its various applications in the public health domain. This course uses a hands-on approach for teaching GIS in health care by focusing on how to use GIS software in the context of carrying out projects for visualizing and analyzing population health-related data. Each week's activities include a lecture and hands-on tutorial that focuses on a health care issue, which uses the software to analyze data or solve a problem. Through weekly assignments, projects, and case studies, students will not only learn how to use the software but will also learn the many distinctive advantages of using GIS for public health-related decision-making and planning.

Lecture. 3 credits. Elective.

HINF 5120

Special Topics in Health Informatics

This course provides a timely way to explore cutting edge topics of interest to students and faculty. The varying content may include topics such as: artificial intelligence, advanced data analytics, data mining and machine learning, cyber security, emerging topics in public health surveillance systems, imaging informatics, telehealth, mHealth, or any other informatics-related emerging topics. This course will have an in-depth exploration of at least one selected topic and a team-based project. Topics may vary from year to year course offering depending on availability of instructor and/or required resources.

Lecture. 3 credits.

HINF 5121

Master's Essay in Health Informatics

The master's essay is the final required course for graduation that allows students to demonstrate analytical, presentation, and interpretive skills by integrating all they have learned, as well as by applying research methods and other informatics skills. Students are allowed to either write a master's essay based on practical experience gained

from clinical internship such as evaluation of a system for usability, workflow analysis, clinical decision support, evidence-based practice, comparing efficacy of various patient-centered applications, or some other studies that involve various issues related to healthcare information system, or small-scale original research. In either case, the collection of original empirical data is a requirement. The essay should be written in an academic format that is of journal quality. *Lecture. 3 credits.*

HINF 5202

Human Computer Interaction This course is an overview of theoretical, development, design, and assessment models and techniques in the field of human-computer interaction, user-interface design, utilizing an interdisciplinary approach (computer science, psychology, cognitive science, and artificial intelligence). Students will have the opportunity to learn the fundamental principles of human-computer interaction and learn how to apply them to real-world problems through class projects, homework and design activities. The focus is on learning how to characterize and evaluate information technologies from a human-centered perspective. *Lecture. 3 credits.*

HINF 5205

Health-care Information Systems

This course provides conceptual and practical knowledge of the healthcare information systems (HCIS), emphasizing the implementation of electronic health record systems (EHRs), infrastructures, evaluation methods, and maintenance approaches in diverse healthcare delivery settings. The breadth of material covered in this course includes reviewing and analyzing the EHRs project planning, vendor selection, design, implementation, maintenance, associated clinical information system components, health information exchange and regulatory provisions, application of decision support systems, and interface methods standards. Also, students will engage in practical clinical workflow analysis, evaluation methods, and provision of different healthcare users' roles in the EHR implementation. The course will highlight leadership concepts and communication models in EHR systems operations. *Lecture. 3 credits.*

HINF 5206

Independent Study

This is a project-based independent study course which requires the completion of a project assigned and supervised by an assigned instructor(s). The project may vary from term to term depending on the mutual interest of a student and supervisor instructor. End product of the course will be a project portfolio or a research paper. *Elective. 1–3 credits.*

HINF 5208

Clinical Internship in Health Informatics I

The clinical internship course exposes students to the practice of health informatics in commercial, research, clinical and medical settings. This course consists of 80 clock hours of clinical internship, which is required for the program. This course is designed to prepare students to meet the challenges of integrating computer systems into the framework of hospital administration, patient care, and medical practice. Students evaluate healthcare information systems and their integration in the clinical facility. Students will review the types, use, integration, and clinical value of healthcare information systems at an assigned clinical facility. Student assigned to a clinical site will devise evaluation criteria and tools, interview stakeholders, evaluate system interfaces, and analyze the integration of the systems in the overall patient care effort of the clinical facility. *1.5 credits.*

Interdisciplinary Courses

See p. 41 for course descriptions.

ADMN 5400 Health Care Delivery in the U.S.

MIDWIFERY

Master of Science & Advanced Certificate

Interim Chairperson and Assistant Professor
Shakima Wiggins

Clinical Assistant Professors
Amal Amar, 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 5017

Professional Issues, Leadership, and Social Justice in Midwifery

The purpose of this course is to prepare the student to assume the role and responsibilities associated with professional midwifery practice, and 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, or with local legislators. 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. The goal is to promote the development of the professional midwifery leader. 3 graduate credits.

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 the 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 is 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 is 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 5408

Advanced Comprehensive Health Assessment

This course is designed to provide basic knowledge and skills needed for the practice of primary women's health care and to provide basic knowledge needed for the assessment of women's reproductive system. Emphasis is placed on history-taking and physical examination, including the sequence and techniques of physical and pelvic

examination. Relevant anatomy and physiology, and normal and abnormal findings are included

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

Antepartum Complications

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

Reproductive, and Sexual Health

This course provides the knowledge base for gynecologic care from adolescence through post-menopause. 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

Reproductive, and Sexual Health, Clinical

This course provides the basic skills needed for gynecologic care from adolescence through post-menopause. 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 5309

Preexisting Conditions Complicating 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 antepartum, 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 5402

Research Methods —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. 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 a study and make recommendations for future research. A research paper is required. An undergraduate course in statistics is a prerequisite for this course. *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

Perinatal Complications

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.*

OCCUPATIONAL THERAPY Master of Science Degree

Chairperson

Efekonwa Nuvwe

Professor Emeritus

Joyce S. Sabari

Associate Professor Emeritus

Patricia Trossman

Teresa Miller

Associate Professor

Brigitte Desport

Vikram Pagbatan

Jasmin Thomas

Assistant Professors

Krystal Brewington

Dawn Tribble

Suzanne Rappaport

Efekonwa Nuvwe

Clinical Assistant Professors

Richard Sabel

Nancy Kline

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 24-month 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 7501 Wisconsin Avenue, Suite 510E, Bethesda, MD 20814. ACOTE's telephone number, c/o AOTA is (301) 652-6611, and its web address is www.acoteonline.org.

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 COURSE DESCRIPTIONS

OTMS-5000: Foundations of Occupational Therapy This course introduces the foundations of the occupational therapy profession by overviewing the history and philosophy of the profession; contextual issues and service models influencing contemporary practice; effects of

disability and hospitalization on occupational performance; and professional roles and functions as part of the interdisciplinary team. This course also introduces task analysis, therapeutic use of activities, and therapeutic use of self to students. Varying practice areas and client populations within occupational therapy practice will be reviewed. Additionally, the analysis of ethical principles, guidelines, and theories will be discussed to provide the foundation of occupational therapy education and practice. *Lecture. Fall. 3 credits.*

OTMS-5004: Human Anatomy

This course is an in-depth study of the human body structure, functions, and abnormal motion, with emphasis on the neuro-musculoskeletal systems. Structural interrelationships shall be examined as the basis for normal functions and to understand structural and functional dysfunctions of body structures that affect body functions and occupational performance. The course facilitates students understanding of neuro-motor and musculoskeletal aspects of human performance skills required to participate in meaningful occupations. Directed laboratory experiences are comprised of cadaver prosection, study of skeletal materials and anatomical models, surface anatomy and palpation, joint and muscle function, and digital learning materials. Students obtain the background knowledge that assists them to understand, analyze and interpret neuro-motor and musculoskeletal body structures and functions that hinder occupational performance. *Lecture-laboratory. Fall. 4 Credits.*

INDI-5002: Kinesiology

This course is the study of human movement. Principles of biomechanics, kinematics, and kinetics are applied to students' foundations in musculoskeletal anatomy. Topics include Kinetic and kinematic analysis of normal and abnormal movement. Awareness Through Movement labs and written log assignments provide the opportunity to apply kinesiological principles to functional movement. *Lecture. Fall. 3 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-5112: Master's Project I

This course introduces research as a tool for evidence-based practice (EBP), advancing clinical effectiveness, and promoting professional competency. Students will begin to understand, critique, and design research studies and quality improvement projects that inform practice and service delivery. Students will learn the components of a research proposal and understand how to prepare effective proposals. Select topics include fundamentals of designing and evaluating a research study, measuring variables, selecting a sample, standardized and non-standardized testing, and data-informed decision-making. Students apply their understanding of research concepts to critique published examples of evidence-based practice in occupational therapy. In addition, students select from a choice of faculty-generated research projects, conduct a preliminary literature review, and draft a research proposal. *Lecture-seminar. Fall. 2 credits.*

OTMS-5005: Group Process

In this course, students will study principles and theories of group dynamics and use of groups and therapeutic activities in occupational therapy. Additionally, students will study principles of occupation, activity, and occupation-based performance, including performance areas, contexts, and components. Exploration of sociocultural variables as they influence adaptive behavior and the health-illness continuum will occur. The focus is on skill development in planning, implementing, and evaluating theory-based activity groups. With experiential learning being the primary instructional method of the course, students will participate in and observe the group process during the class. Furthermore, an emphasis is placed on skill development in administering assessments of occupational performance and conducting activity analysis to facilitate engagement in meaningful occupation (e.g., occupation-based intervention, purposeful activity, preparatory methods). *Lecture. Fall. 3 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. Spring. 2.5 credits.*

MSCI-5211: Medical Sciences

Lecture, case-study presentations, and discussion of etiology, symptoms, and medical management of patients with medical, pediatric, neurologic, and orthopedic diagnoses. *Lecture. Spring. 4 credits.*

OTMS-5105: Theory & Practice I: Psychosocial Intervention

An introduction to the practice of occupational therapy in psychosocial dysfunction, with a focus on issues in the mental health practice arena. The application of frames of reference and evidence-based literature of evaluation, treatment planning, implementation, and outcomes assessment. Skill development in case study method, group process techniques, and clinical reasoning. *Lecture-laboratory. Spring. 4 credits.*

OTMS-5111: FW I: Psychosocial Intervention

During this course, students will attend clinical fieldwork in a mental health/psychosocial setting. There will be supervision in the exploration of the practice of occupational therapy for different psychiatric conditions with an emphasis on developing clinical reasoning skills, translating didactic knowledge into clinical skills, professionalism, emotional intelligence, and preparation for Level II Fieldwork. *Fieldwork-seminar. Spring. 2 credits.*

OTMS-5108: Activities of Daily Living

In this course, students will analyze and explore performance in activities of daily living (ADL) and instrumental activities of daily living (IADL). The course addresses principles and techniques in activities of daily living for individuals with disabilities. Students will learn to evaluate and

select assistive technology devices to facilitate the performance of ADL/IADL by people with disabilities. Additionally, 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. Spring. 3 credits.*

OTMS-5206: Community Practice I: Relationship & Assessment

In this first course of the three-semester Community Practice Sequence, students identify and initiate a collaboration with a community organization that has no occupational therapists on staff. The organization has a potential need for occupational therapy contributions. Students will gain knowledge and complete a needs assessment for the identified organization. Concurrent lectures and discussions allow students to reflect on ways occupational therapy skills can be applied in non-traditional practice settings. *Lecture-seminar & community experience. Spring. 1 credit.*

OTMS-5112: Master's Project II

Students will continue to refine skills in professional and scientific writing by revising and completing the research proposal, as they learn the primary approaches of research design, methods, data collection, and analysis; how to report research results in a scholarly manner utilizing current APA guidelines; and apply knowledge of research designs, data collection, and analysis while evaluating published research articles to inform ethical and evidence-based clinical decisions and the development of successive drafts leading to a completed Master's Project. *Lecture-seminar. Fall. 1.5 credits.*

OTMS-5303: Theory & Practice II: Neurorehabilitation

This course examines the theory and practice of occupational theory in the assessment and intervention of clients who have sustained stroke, head injury, and other progressive neurological disorders. Additionally, theories of information processing are applied to occupational therapy intervention for clients experiencing cognitive and perceptual limitations. The focus will be on developing knowledge and skills to build competency in addressing neurological, cognitive, and perceptual impairments that impact occupational performance. The course will include bimonthly ECHO session participation. Project ECHO in conjunction with the Bridge Program provides virtual case conferences with an interprofessional care team to provide learning to enhance the care of older adults. *Lecture-laboratory. Summer. 4 credits.*

OTMS-5305: Theory & Practice III: Orthopedic & Physical Rehabilitation

This course examines the theory and practice of occupational therapy for adults with physical impairments who participate in rehabilitation programs in inpatient, acute care, outpatient, and home care settings. Additionally, principles and objectives of the orthotic and prosthetic process in rehabilitation will be covered, with a focus on upper limb, static and dynamic splint fabrication,

selection of commercial orthotic devices, and appraisal of upper and lower limb orthotics and prosthetics. Principles and methods of screening, assessment, clinical reasoning, and formulation and implementation of treatment plans are emphasized. After this course, students will acquire knowledge and entry-level skills in occupational therapy evaluation and treatment in physical rehabilitation. Through lectures, reading and written assignments, and classroom discussions, students will demonstrate knowledge of the theoretical bases for occupational therapy practice in physical rehabilitation. *Lecture-laboratory. Summer. 4 credits.*

OTMS-5304: Occupational Therapy for Adults and Older Adults

Theory and practice of occupational therapy for adult and older adult clients who participate in therapy at hospitals, rehabilitation programs, geriatric, and home care settings. Includes special problems and considerations of the geriatric client. Principles and methods of screening, assessment, clinical reasoning, and formulation and implementation of treatment plans. *Lecture. Summer. 3 credits.*

OTMS-5311: FW I: Adult & Geriatric Rehabilitation

During this course, students will attend clinical fieldwork in a setting serving adult and/or geriatric clients. Emphasis is placed on developing clinical reasoning skills with a supervised exploration of the practice of occupational therapy for adults of all ages with a variety of orthopedic, neurological, medical, and surgical conditions. The focus of the course is translating didactic knowledge into clinical skills, professionalism, emotional intelligence, and preparation for Level II Fieldwork. *Fieldwork-seminar. Summer. 2 credits.*

OTMS-5306: Community Practice II: Marketing & 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. *Lecture-seminar & community experience. Summer. 1 credit.*

OTMS-5312: Master's Project III

As the culminating course in the Master's Project research sequence, students will be guided through the final stages of their Master's Project, focusing on data analysis, interpretation, and dissemination of findings. Students will critically analyze their study results, develop a comprehensive discussion section—including implications, limitations, and conclusions—and prepare a final manuscript & presentation suitable for submission to professional and/or peer-reviewed outlets. *Lecture-seminar. Summer. 2 credits.*

OTMS-5215: Introduction to Early Intervention (optional; elective for SEI students only)

Students will learn 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 be provided online with practical assignments and papers, field trips, bulletin board discussion groups, and e-mail communication. During this course, the student will participate in an Early

Childhood Internship which includes daycare intensive and NICU follow-up experience with the interdisciplinary team members, and continue in subsequent courses. *Seminar & community experience. Fall. 1.5 credits.*

OTMS-5401: Administration & Professional Issues

This course involves the application of theories, concepts, and principles of management, supervision, professional ethics, and other issues relevant to practice in occupational therapy are covered in this course. Students will develop an understanding of healthcare systems, organizational structure, financing, and quality assurance in 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 are also reviewed. *Lecture. Fall. 3 credits.*

OTMS-5409: Theory & Practice IV: Young Children

This course examines the theoretical foundations and practice of occupational therapy in pediatric populations, with a particular emphasis on the young child from birth through preschool and their families in the 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 perspectives. 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. *Lecture-laboratory. Fall. 4 credits.*

OTMS-5413: Theory & Practice V: School Age
This course examines the theoretical foundations and practice of occupational therapy in pediatric populations, with a particular emphasis on children from kindergarten to high school, which includes transitions to vocational and post-secondary education as well as a study of family dynamics in the context of environment and culture. In addition to school-based practice, this course also includes topics in pediatric acute care, home care, and specialized services such as assistive technology, telerehabilitation, and emerging areas of practice. Course materials will emphasize principles and methods of evaluation and intervention to include clinical reasoning and critical thinking skills, formulation and implementation of intervention plans, and incorporating evidence-based practices with school-aged children. *Lecture-laboratory. Fall. 4 credits.*

OTMS-5003: Assistive Technology

During this course, students will attend clinical fieldwork in a pediatric setting. There will be s This course will deepen students knowledge in the principles of assistive technology in occupational therapy practice with clients across the lifespan. *Lecture-laboratory. Fall. 1 credit.*

OTMS-5205: Cognition & Perception

This course explores the foundational theories of cognitive and perceptual development, alongside information processing models, and their application in occupational therapy interventions. Students will learn to assess and address cognitive and perceptual dysfunctions in both children and adults, emphasizing the impact on functional performance and occupation. *Lecture-laboratory. Summer. 1 credit1.*

OTMS-5411: FW I: Pediatrics

During this course, students will attend clinical fieldwork in a pediatric setting. There will be supervised exploration of the practice of occupational therapy for a variety of pediatric conditions from birth to 21 including developmental delays, neurological disorders, autism, orthopedic, medical, and surgical conditions. Emphasis is on the development of clinical reasoning skills, translating didactic knowledge into clinical skills, professionalism, emotional intelligence, and preparation for Level II Fieldwork. *Fieldwork-seminar. Fall. 2 credits.*

OTMS-5406: Community Practice III: Service

This course involves occupational therapy practice in community settings. Based on previous work in Community Practice I and II, students provide goal-directed programs throughout the entire semester at their assigned practicum sites. Pre- and post-surveys are developed, administered, and analyzed to determine the efficacy of the individual projects. The students present their projects and data at an annual community practice exchange fair. *Lecture-seminar & community experience. Fall. 1 credit.*

OTMS-5315: Topics in Early Intervention (optional; elective for SEI students only)

Students will explore current issues in early intervention. Topics will include best practice, embedded coaching and working with families, special patient populations, assessment and outcome development for IFSPs and assistive technology. This course will include an online course experience with practical assignments and papers, discussion group posts, and e-mail communication. *Seminar & community experience. Fall. 1.5 credits.*

Interprofessional Courses

See p. 41 for course descriptions.

ANAT 5101 Human Neuroanatomy

INDI 5002 Kinesiology

MSCI 5211 Medical Sciences

OCCUPATIONAL THERAPY Doctorate Degree

Chairperson

Efekona Nuvvere

Assistant Professors

Efekona Nuvvere

Suzanne Rappaport

Demonstrate to current clients and employers your advanced expertise in occupational therapy. Learn about the latest practices, dive deep into an area of special interest, strengthen your professional network, and refine your analytical and leadership skills.

Downstate's program allows you to apply your learning immediately while in your current position. Its flexible and thoughtful design is tailored to meet the needs of working professionals. Esteemed faculty will support your professional development as you learn ways to work collaboratively to promote health and participation among clients, families, and vulnerable populations. As you learn new strategies and techniques through engaging coursework and a relevant capstone project, you will enhance client outcomes and your professional standing.

After graduation, choose to stay in your current position to affect positive change or obtain a new role you are well-prepared for. You can also explore other professional opportunities such as teaching in an OT degree program; publishing knowledge for academics, practitioners; and clients; and growing your impact in an emerging practice.

Core courses establish the foundation for advanced-level practice by developing skills needed to critically appraise practice evidence; leading and managing interprofessional teams; and understanding educational and healthcare systems to advocate for health equity and cultural humility. Capstone courses set the stage for students to address a problem of practice while receiving mentorship and guidance from faculty. Students will enhance their inquiry and scholarly abilities and complete a performance improvement project or research project.

Elective courses now offer students the opportunity to choose from a range of specialty areas, allowing them to deepen their knowledge and skills. By completing three elective courses within a single practice area, students can earn a concentration in one of four fields:

- Pediatrics
- Adult Rehabilitation
- Health Informatics
- Teaching & Learning in Higher Education

These concentrations allow students to expand upon foundational knowledge by combining their clinical experience with innovative, evidence-based assessments and interventions that promote participation in meaningful occupations.

OTD 7001

Critical Appraisal & Research Concepts

Students will develop advanced skills to critically analyze research to determine the level of evidence, clinical value and importance to occupational therapy practice. Students will use these skills to enhance evidence-based practice in their current clinical area after using clinical reasoning skills to determine validity and effectiveness of interventions reviewed. Students will complete and submit a Critically Appraised Paper (CAP) to the American Occupational Therapy Association's Evidence Exchange. *Synchronous-asynchronous lecture. 3 credits.*

OTD 7002

Leadership Identity and Impact in Occupational Therapy

This course explores critical factors of leadership, focusing on general principles of healthcare leadership and leadership in the occupational therapy profession. Topics covered include leadership theories along with personal readiness, leadership vs. management, the fiscal side of leadership, leadership to manage change, ethics in leadership, outcome measurement in leadership along with the intersection of leadership with the specialized skills of intercultural competency, critical thinking, as well as anticipating the future and building learning organizations. The course highlights the manner in which occupational therapists can leverage this knowledge to meet today's demands in occupational therapy, while positioning the profession for its future success. Students will reflect on personal and professional development while contributing to the future advancement of the profession. *Synchronous-asynchronous lecture. 3 credits.*

OTD 7003

Policy & Advocacy in Occupational Therapy

Students explore the historical roots, current features and evolving trends in health care delivery in the United States, with a special focus on implications to provision of occupational therapy services. Students will also explore how the political process affects the provisions of occupational therapy services. The importance of advocacy will be highlighted as a method for potential future improvements to health care delivery and access to occupational therapy services in the United States. *Synchronous-asynchronous lecture. 3 credits.*

OTD 7004

Cultural Humility in Occupational Therapy Practice

Students will expand on core concepts from their entry-level occupational therapy education to analyze the influence of cultural, ethnic, gender and socioeconomic background upon access to health care and upon responses to disability, illness or developmental delay. Students will also reflect on their own values, presumptions and biases in occupational therapy practice and formulate strategies to enhance their effectiveness as occupational therapy practitioners for a diverse variety of clients and families. *Synchronous-*

asynchronous lecture. 3 credits.

OTD 7005

Community-Based Occupational Therapy Practice

Community-based OT practice refers to concepts, values and skills that extend beyond traditional practice settings. Students will expand upon their knowledge from entry-level occupational therapy education to analyze underlying paradigms for community-based OT interventions, explore the interaction between public health and occupational therapy, and apply a new framework for expanding their provision of community-centered occupational therapy. *Synchronous-asynchronous lecture. 3 credits.*

OTD 7006 Advanced Opportunities: Teaching, Leading, and Professional Growth

Students explore a variety of opportunities for professional growth, advanced practice, and entrepreneurial activities that are available to occupational therapists. Students develop individualized professional goals and detailed plans for achieving these goals. *Synchronous-asynchronous lecture. 3 credits.*

OTD 7007 Innovation Project: Planning & Proposal

Student develops a comprehensive proposal for a, following a designated protocol, for a culminating doctoral capstone project. The capstone project can be either: (1) development, implementation, and evaluation of a occupational therapy intervention at the student's current place of employment or in a community-based setting OR (2) a significant contribution to an existing research agenda, under the direction of a SUNY Downstate OT faculty member. The student also completes preparatory activities to ensure effective implementation of the capstone project. *Synchronous-asynchronous lecture. 3 credits. Pre-req: OTD 7001*

OTD 7008

Innovation Project: Implementation & Outcomes Assessment

Students implement the project and conducts a formal outcomes assessment, using statistical analysis or recognized qualitative assessment methods. The student also prepares materials to disseminate information about the project and the outcomes. The capstone project can be either: (1) development, implementation, and evaluation of an occupational therapy intervention at the student's current place of employment or in a community-based setting OR (2) a significant contribution to an existing research agenda, under the direction of a SUNY Downstate OT faculty member. *Synchronous-asynchronous lecture. 3 credits. Pre-req: OTD 7001 and OTD 7007*

OTD 7009

Family Centered Best Practice in Early Intervention

Students explore the role occupational therapy plays in Early Intervention (EI) programs, and the unique considerations that must be taken when

working with infants and toddlers and their families and caregivers. Students examine childhood disorders and diagnoses, apply models of pediatric practice, explore and reflect upon their clinical reasoning skills, and appraise both quantitative and qualitative evidence of intervention approaches and the lived experience of families and caregivers. Strong focus is on what it means to provide evidence-based, family-centered services during the assessment and evaluation process and while developing and implementing EI intervention plans. *Synchronous-asynchronous lecture. 3 credits.*

OTD 7010

Innovative OT Practice for Clients with Autism Spectrum Disorder

Students will expand upon their knowledge from entry-level occupational therapy education to explore current developments in occupational therapy interventions to promote participation in meaningful occupations for children with Autism Spectrum Disorder (ASD) and their families. Students analyze evolving changes in diagnostic criteria as well as emerging research evidence to promote best practices for children with ASD. Assignments are tailored to students' individual clinical experiences so that the course is appropriate for students who are new to this practice area as well as to students who are currently working with children with ASD and their families. *Synchronous-asynchronous lecture. 3 credits.*

OTD 7011

Evidence-Based OT Strategies in School-Based Practice

Students explore school-based occupational therapy in educational systems focused on inclusive learning environments. Students examine issues surrounding the provision of occupational therapy services within natural learning contexts, collaborating with teachers and other service providers, and working from a child-centered, strengths-based perspective. The course focuses on the special education process, including evaluations, Response-to Intervention, Universal Design for Learning, the IEP process, goal writing and progress reporting. Students explore best practices for system-based, population-based, performance-based and activity-based considerations to both support and enhance children's participation. Students review the current literature and develop strategies for developing supportive, sensory-smart programs and spaces that work within and throughout the classroom and school community, while respecting the wide range of available resources. *Synchronous-asynchronous lecture. 3 credits.*

OTD 7013

Enhancing Quality of Life with a Disability or Chronic Disease

Students will explore the impact of health-related quality of life on physiological health outcomes in adults with chronic diseases or disabilities. They will also determine potential roles for occupational therapists in helping these individuals to maximize resilience, develop healthy routines, manage fatigue, anxiety & stress, reduce caregiver burden, and engage in social, physical and community activities.

Lifestyle Redesign® will be presented as a prototype that students will use to design a new intervention for clients at their current site of OT practice or local community. *Synchronous-asynchronous lecture. 3 credits.*

OTD 7015

Evidence-Based OT Interventions for Adults Post-Stroke

Professional practice guidelines for stroke rehabilitation are updated regularly by the American Heart Association (AHA) Stroke Council and by the American Occupational Therapy Association (AOTA). Based on systematic reviews of published literature and interpretations from panels of experts, these guidelines provide practitioners with up-to-date recommendations about the benefits and risks of specific interventions. In this course, students will carefully review both the AHA and AOTA Guidelines to assess their own clinical work with adults-post stroke in the areas of: assessment, prevention of secondary impairments, development of sensorimotor, cognitive, praxis and visual performance skills, and achievement of independent re-integration into community activities. In addition, students will explore primary sources within the current outcomes literature to further inform their clinical practice and future program development. *Synchronous-asynchronous lecture. 3 credits.*

OTD 7016 Helping People with Disabilities Improve or Maintain Motor Performance

Students analyze current theories and evidence related to motor control and integrate new concepts and ideas to their interventions with clients. Topics include posture and balance, functional mobility, arm and hand function, motor planning, and physical endurance during task performance. Students also critically appraise the research evidence related to improving or maintaining motor function in adults with disabilities. *Synchronous-asynchronous lecture. 3 credits.*

OTD 7017 Introduction to Health Informatics for the Occupational Therapist

Get a strong foundation in the principles, concepts, and methods of health informatics. This course explores how technology enhances healthcare delivery, covering core topics like artificial intelligence applications, information science methodologies, and the effective use of biomedical data. You will learn to assess current information practices and utilize cutting-edge computational tools to address the technological needs of healthcare. *Synchronous-asynchronous lecture. 3 credits.*

OTD 7018 Health Information Standards and Interoperability

Learn the critical role of timely and accurate health information sharing. This course provides an in-depth look at health information technology standards and terminologies, such as FHIR and HL7, that are essential for data interoperability and exchange across systems. You'll also be introduced to network architecture and security as it applies to HIPAA regulations, ensuring you can navigate the

complexities of secure health data. *Synchronous-asynchronous lecture. 3 credits. Pre-req: OTD 7017*

OTD 7019

Healthcare Data Visualization

This course combines the science of data visualization with the art of graphic design to help you effectively communicate complex health information. Using software like Tableau, you will learn to transform data sets into compelling visual graphics such as charts, graphs, and heatmaps. This will empower you to tell stories with data, make better decisions, and solve real-world health problems. *Synchronous-asynchronous lecture. 3 credits. Pre-req: OTD 7017*

OTD 7020

Healthcare Information Systems

This course provides a comprehensive overview of healthcare information systems, with a focus on clinical information systems. You'll explore key topics such as EHR project planning, vendor selection, implementation, and maintenance. Through hands-on activities, you'll gain practical experience in clinical workflow analysis and EHR demonstrations, preparing you to manage and optimize healthcare technology operations. *Synchronous-asynchronous lecture. 3 credits. Pre-req: OTD 7017*

OTD 7021

Clinical Decision Making

Understand how to model and support decisions in clinical care. This course explores various models of clinical decision-making, from classical theory to clinical decision support systems (CDSS). You'll learn the value of diagnostic tests, the role of artificial intelligence, and how CDSS integrates with electronic health records, gaining core literacy essential for all allied health professionals. *Synchronous-asynchronous lecture. 3 credits. Pre-req: OTD 7017*

OTD 7022

Teaching & Learning Practices in Occupational Therapy

Gain a comprehensive understanding of pedagogical theories and instructional design. This course equips students with the skills to effectively tailor teaching approaches to diverse learner populations and practice settings. Through the critical analysis of learning science and practical module development, you will cultivate the expertise needed to foster engagement and meaningful learning. *Synchronous-asynchronous lecture. 3 credits.*

OTD 7023

Promoting Active & Inclusive Learning in Occupational Therapy Education

This course explores how to integrate Universal Design for Learning (UDL) and active learning strategies into both classroom and clinical instruction. Students will gain practical experience in designing accessible and engaging learning environments that meet the diverse needs of all students, preparing them to create cohesive and inclusive educational experiences. *Synchronous-*

asynchronous lecture. 3 credits.

OTD 7024

Applied Teaching & Learning Practicum
This culminating course offers a hands-on opportunity to translate advanced teaching theories into practice. Under the guidance of a faculty mentor, students will design, implement, and evaluate a significant educational initiative within a professional setting. This practicum is a critical step for those aiming to strengthen their teaching competencies and advance their careers in occupational therapy education. *Applied experience-seminar. 3 credits. Pre-req: OTD 7022 and OTD 7023*

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

Chairperson and Professor

Yasser Salem

Associate Professor Emeritus

*Joanne Katz
Teresa M. Miller*

Associate Professor

Farhad Haeri

Assistant Professor

*Genevieve Smith
Lorraine Antoine*

Clinical Assistant Professor

*Toni A. Zuccaro
Saren Abearn*

Clinical Instructor

Roshyn Sofer

Adjunct and Clinical Faculty,

*Antonette S. Flecha, Henry Hanjif, Andrew Moscatiello,
Laurie Seckel, David Sofer, Afriqiyah Woods*

Physical therapists are licensed healthcare professionals who help patients improve their movement, manage pain, and restore function, ultimately enhancing their overall quality of life. As experts in motion, physical therapists are integral members of the healthcare team, working with a wide range of patients affected by disease, injury, disability, and movement dysfunction.*

Physical therapists examine, diagnose, and treat individuals of all ages, from newborns to people at the end of life. Physical therapists work with patients who have injuries, disabilities, or other health conditions that need treatment. They help patients avoid surgery and prescription drugs, maximize mobility, manage pain and chronic conditions, prevent future problems, and improve physical function and fitness.*

*From American Physical Therapy Association (APTA)

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 11 percent from 2024 through 2034. 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 that 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 2023, 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 the Summer of each year and is divided into nine semesters.

The Doctor of Physical Therapy program has a comprehensive curriculum reflective of contemporary practice and standards of practice. The curriculum reflects the educational process for future physical therapists, and the necessary characteristics physical therapists must have as they enter the profession. The curriculum is designed to develop the skills and knowledge needed for contemporary practice and to prepare physical therapists as autonomous practitioners who are proficient in areas such as screening, evaluation, diagnosis, and intervention.

The curriculum model is based on and aligned with contemporary practice of physical therapy. The curriculum design is based on several key professional documents and resources. These include Commission on Accreditation in Physical

Therapy Education (CAPTE) Standards and Required Elements for Accreditation of Physical Therapist Education Programs, the American Council of Academic Physical Therapy (ACAPT) Top Guidelines for A Successful Doctor of Physical Therapy Education Program, and the content areas listed by the Federation of State Board of Physical Therapy (FSBPT).

The program incorporates a sequential curriculum to develop students' knowledge and skills from concrete to abstract and simple to complex. This development occurs within individual courses and throughout the curriculum. The curriculum begins with basic science and foundational courses and progresses to practical knowledge, critical thinking, problem solving, and clinical decision making. Clinical skills are integrated from the first semester and throughout the curriculum. Alongside the didactic courses, students participate in integrated clinical education experiences (ICE), interprofessional experiences (IPE) and clinical internships. Those experiences along with the clinical education (internship) courses allow students to participate in clinical practice and hands-on experiences early in the curriculum, with an emphasis on clinical education across the curriculum. Professional development and leadership skills are integrated throughout the curriculum to prepare students for a changing healthcare environment and a career of lifelong learning.

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

The program partners with a variety of clinical education sites to provide students with diverse training. The majority of these clinical sites are in the New York metropolitan area, but placements are also available in other states and overseas to accommodate students' interests. This network gives students access to a wide variety of practice settings and patient populations and across the lifespan. This network ensures that students receive a well-rounded and diverse clinical education, which is a crucial component of their training.

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 in 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 in 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.

Learning experiences are planned with the student to allow students 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 3030 Potomac Avenue, Suite 100, Alexandria, VA, 22305-3083, 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). 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.*

Interdisciplinary Courses

The following courses are typically taught with students from other programs including Occupational Therapy and Physician Assistant programs. 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, Johnathan Silver*

Clinical Assistant Professor
Jennifer Otey, Candida St. Hillaire

Adjunct and Clinical Faculty
Daniel Agocha, Lynne Antonio-Lonie, Henry Landais, Kimberly Loughton, Kurt Loney-Walsh, Dawn Morton-Rias, 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) 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). 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 2029.

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.

PAClass 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; the New York State Society of Physician Assistants (NYSSPA) at www.nysspa.org; and the Physician Assistant Education Association (PAEA) at 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. (*Prerequisite: ANAT 5012 Human Gross Anatomy; Co-requisite: PAMS 5316 Introduction to Pharmacology.*) *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, PAMS 5300 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: MSCI 5100 Research Methods, PAMS 5300 Pathophysiology) 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, PAMS 5311 Pharmacotherapeutics). 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, PHYS 5110 Principles of Physiology & Biochemistry.) 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, , PAMS 5101 EKG Interpretation.) 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: PAMS 5006 Interviewing and Physical Diagnosis, PAMS 5300 Pathophysiology.) 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 5301 Adult Primary Care Medicine, PAMS 5212.) 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, PAMS 5100 Clinical Microbiology & Immunology.) 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. (Prerequisites: PAMS 5012 Anatomy, PHYS 5110 Principles of Physiology and Biochemistry, PAMS 5300 Pathophysiology, PAMS 5006 Interviewing & Physical Diagnosis, PAMS 5011 Neuroanatomy; Corequisite: PAMS 5311 Pharmacotherapeutics). 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.) Corequisite: PAMS 5301 Adult Primary Care Medicine.) 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 pharmaco-dynamics. Formalized models will be used to systematically demonstrate the behavior of drugs in the body. (Corequisite: 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, PAMS 5212 Introduction to Psychiatry.) 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, PAMS 5212 Introduction to Psychiatry.) 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. *(Prerequisite: Masters Project I.) 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. *(Prerequisite: Masters Project II.) 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 PAMS 5000 (4 credits) and PAMS 5001 (3 credits).*

Interprofessional Courses

ADMIN 5100

Health Care Delivery in the United States

ANAT 5012

Human Gross Anatomy

INDI 5012

Brooklyn Free Clinic Experience

PHYS 5110

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*

* 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 Health 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 Health 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 Sonography 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

Amar-Alattaby, Amal

DM (Jefferson University), CNM, OBGYN, NP

Clinical Assistant Professor

Midwifery

Antoine, Lorraine

DPT (Temple University), PT

Clinical Coordinator & Assistant Professor

Physical Therapy

Brewington, Krystal

OTD (Concordia University-Wisconsin), OTR/L, CPAM

Assistant Professor

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

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Clinical Assistant Professor

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Clinical Associate Professor

Health Informatics

Kline, Nancy

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Assistant Professor

Occupational Therapy

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PhD (Virginia Commonwealth University)

Dean

School of Health Professions

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Clinical Coordinator & Clinical Assistant Professor

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Assistant Professor

Physician Assistant

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Chairperson & Assistant Professor

Occupational Therapy

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Academic Coordinator & Clinical Assistant Professor

Physician Assistant

Pagpatan, Vikram

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Associate Professor

Occupational Therapy

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Assistant Professor

Physician Assistant

Pessin, Yosefa Joy

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Associate Professor

Diagnostic Medical Sonography

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Assistant Professor

Occupational Therapy

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Assistant Professor

Physician Assistant

Sabel, Richard

MA (New York University), MPH (University of Texas), OTR, GCFP

Clinical Assistant Professor

Occupational Therapy

Salem, Yasser

PhD (U. Arkansas), PT, NCS, PCS

Chairperson & Professor

Physical Therapy

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MD (Technological University of Santiago – School of Medicine)
Assistant Professor
Physician Assistant

Silver, Jonathan
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Assistant Professor
Physician Assistant

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Occupational Therapy

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Occupational Therapy

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Chairperson and Clinical Assistant Professor
Physician Assistant

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Clinical Assistant Professor
Diagnostic Medical Sonography

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LCCE
Clinical Assistant Professor
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Chairperson & Professor
Physical Therapy

Zuccaro, Toni
PhD (Temple University), PT, NCS
Clinical Assistant Professor
Physical Therapy

**Principal faculty as of November 2025*

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 makeup classes

4. If registration, classes, examinations, study, or work requirements are held on Friday after 4:00 p.m. or on Saturday, similar or makeup 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 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

FINANCIAL AID

Phone: (718) 270-2488; Fax: (718) 270-7592
FinancialAid@downstate.edu

ADDITIONAL INFORMATION

Office of Diversity Education & Research
(718) 270-3033
diversityprograms@downstate.edu

RESIDENTIAL LIFE AND SERVICES

Phone: (718) 270-1466; Fax: (718) 270-1466
residentialLife@downstate.edu

WEBSITE

www.downstate.edu

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Diagnostic Medical Sonography: admissions@downstate.edu

Health Informatics: Informatics.CHRP@downstate.edu

Midwifery: Midwifery.SOHP@downstate.edu

Occupational Therapy: OT.SOHP@downstate.edu

Physical Therapy: admissions@downstate.edu

Physician Assistant: 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.

Index

A

Academic Calendars
 See, “Web Links” in this Index
 Academic Development, Office of See, “Web Links” in this Index
 Academic Policies (SOHP)
 See, pages 45-59 in the Student Handbook
 Academic Programs, 17 – 40
 Diagnostic Medical Sonography, 18
 Health Informatics, 22
 Midwifery Program, 24
 Occupational Therapy, 28
 Physical Therapy, 31
 Physician Assistant, 37
 Accreditation –Middle States Commission on Higher Education, 17
 Accreditation – by Specialty Program
 Diagnostic Medical Sonography, 18
 Health Informatics, 22
 Midwifery, 24
 Occupational Therapy, 28
 Physical Therapy, 31
 Physician Assistant, 37
 Administration, 5
 Admissions, 10
 Admissions-General Policies and Information, 13
 Admissions Procedures, 13
 Admissions-by Program
 Diagnostic Medical Sonography Program, 10
 Health Informatics Program, 10
 Midwifery Program, 10
 Occupational Therapy Program, 11
 Physical Therapy Program, 11
 Physician Assistant Program, 12
 Advanced Learning Resource Center, 43
 Alternate List, 15
 Application Deadlines and Timelines, 16
 Application Instructions, 15
 Deferrals, 14
 Educational Opportunity Program, 15
 Health Care Experience, 14
 International Applicants, 14
 Notification of Admission Status, 14
 Part-Time Study, 14
 Re-applicants to Degree Programs, 15
 Second Degree Applicants, 15
 Studies Completed Outside of United States, 14
 Transfer Credit, 15
 Transfer Credit to Meet Admission Requirements, 15
 Program of Study Transfer Credit, 15

B

Board of Trustee Members, 5
 Bookstore
 See “Student Handbook” and “Web Links” in this Index
 Bursar’s Office
 See “Student Handbook” and “Web Links” in this Index

C

Chaplain Services
 See “Student Handbook” and “Web Links” in this Index
 Children’s Center
 See “Student Handbook” and “Web Links” in this Index
 SOHP Computer Laboratory, 43
 Contact Information, 52
 Clinical Care Facilities, 44
 Credit by Examination Programs, 14

D

Deferrals, 18
 Diagnostic Medical Sonography Program, 10, 18
 Accreditation, 18
 Admissions, 10
 Career Opportunities, 18
 Course Descriptions, 18
 Faculty, 18
 Graduation Honors, 18
 Laboratory Facilities, 43
 Directions to Downstate, 2
 Diversity and Inclusion, Office of
 See page 31 in the “Student Handbook” and “Web Links” in this Index

E

SOHP Educational Environment, 9
 Educational Focus Statement (SOHP), 6
 Education Rights and Education Law, 51
 Educational Opportunity Program, 15
 Email addresses, 15

F

Facilities for Instruction, 43
 Faculty, Alphabetical List, 47
 Faculty/Student Association
 See, “Web Links,” section of this Index
 Financial Aid
 See, “Student Handbook” and “Web Links” in this Index
 Founding of SUNY Downstate Health Sciences University, 7

G

Grading Policy (SOHP)
 See pages 52-54 in the Student Handbook

H

Health Care Experience, 14
 HEGIS Codes, 17

I

Interprofessional Courses, 41
 International Applicants, 14

L

Library, 43 and
 See, page 21 in the “Student Handbook” and “Web Links” in this Index, & See “Web Links” in this Index

M

Health Informatics, 10, 22
 Accreditation, 22
 Admissions, 10
 Career Opportunities, 22
 Course Descriptions, 22
 Faculty, 22
 Graduation Honors, 22
 Midwifery Program, 10, 24
 Accreditation, 24
 Admissions, 10
 Awards for Academic and Clinical Excellence, 24
 Career Opportunities, 24
 Classroom, Laboratory, 43
 Course Challenge Mechanism, 24
 Course Descriptions, 24
 Direct Entry Program, 24
 Midwifery Certification/Licensure, 14

Midwifery Profession, 24
 Program Objective, 24
 Programs of Study, 24
 Mission and Educational Environment- SOHP, 9

N

Notification of Admission Status, 14

O

Occupational Therapy Program, 11, 28
 Accreditation, Credentialing, and Licensure, 28
 Admissions, 11
 Career Opportunities, 28
 Course Descriptions, 28
 Faculty, 28
 Graduation Honors, 28
 Laboratory, 453
 Open House and Campus Information Sessions, 10

P

Parking, 2; See p. 32 in Student Handbook
 Part-Time Study, 14
 Physical Therapy Program, 13, 31
 Accreditation, Credentialing, and Licensure, 32
 Admissions, 11
 Career Opportunities, 31
 Clinical Education, 31
 Combined BS/DPT Curriculum and Program, 31
 Course Descriptions – BS in Health Sciences, 32
 Course Descriptions- Doctor of Physical Therapy, 33
 Faculty, 31
 Graduation Honors, 32
 Laboratory, 43
 Physician Assistant Program, 12, 37
 Accreditation, 37
 Admissions, 12
 Career Opportunities, 37
 Course Descriptions, 37
 Faculty, 37
 Graduation Honors, 37
 Program Description and Background, 37
 Laboratory, 43
 Programs of Study
 See, “Web Links,” in this Index
 Physician Assistant Post Professional MS, 13, 40

R

Re-applicants to Degree Programs, 15
 Registrar, Office of
 See “Student Handbook” and “Web Links” in this Index
 Required Examinations (Admissions), 14
 Residential Life
 See “Student Handbook” and “Web Links” in this Index

S

Second Degree Applicants, 15
 Student Affairs
 See “Student Handbook” and “Web Links” in this Index
 Student Conduct
 See the following pages in the Student Handbook:
 Appendix I – Tuition and Fees, 120
 Appendix II – Academic Policies 123
 Appendix III – Federal and State Regulations, 132
 Appendix IV -Rules of Student Conduct, 177
 Student Financial Aid
 See, “Student Handbook” and “Web Links” in this Index
 Student Counseling

See, “Web Links,” in this Index
Student Health
See, “Student Handbook,” in this Index
Student Retention, 18
Studies Completed Outside of United States, 14
State University of New York Campuses, 50
State University of New York Overview, 49
Student Handbook
 See link to Student Handbook pdf in
 “Weblinks,” the Handbook’s Table of Contents and
 Index, and these specific pages in the Handbook:
 Academic Policies (SOHP), 45 – 59
 Bookstore, 19
 Bursar, 19
 Chaplain Services, 34
 Children’s Center, 19
 Diversity and Inclusion, Office of, 31
 Financial Aid, 14
 Grading Policy, 52
 Library, 21
 Parking, 32
 Registrar, 15
 Residential Life, 22
 Student Activities, 23
 Student Affairs, 16
 Student Conduct, 134
 Student Health, 26
 Support Services for Students, 25 – 48
 Tuition and Fees, 138 – 140
 Tuition Refunds, 139-140
 University Police, 45-46
 University Resources, 20-46
 University Services, 25 – 48

Student Life
See “Student Handbook” and “Web Links” in this Index
SUNY Council Members, 5
SUNY Downstate Leadership and Deans, 5
SUNY Downstate Mission, Vision & Values Statement, 6
Support Services for Students
See link to “Student Handbook” in this Index

T

Table of Contents, 4
Teaching Facilities, 43
Transfer Credit, 14
 Transfer Credit to Meet Admission Requirements, 14
Program of Study Transfer Credit, 15
Tuition and Fees (Bursar’s Office)
See, “Student Handbook” and “Web Links” section of
this Index
Tuition Refunds
See, “Student Handbook” section of this Index ...

U

University Police
See “Student Handbook” and “Web Links” in this Index
University Resources
See “Student Handbook” and “Web Links” in this Index
University Services,
See “Student Handbook” and “Web Links” in this Index

W

Web Links:
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 Sonography

<https://www.downstate.edu/education-training/student-services/registrar/programs-of-study/school-of-health-professions/diagnostic-medical-imaging.html>

Health 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>