



COLLEGE OF HEALTH AND NURSING SCIENCES

Graduate Programs

- **Health and Exercise Sciences (M.S.)**
- **Nursing (M.S.N., M.S.)**
- **Biomechanics and Movement Science (M.S., Ph.D.) (Interdisciplinary Program); see page 253**
- **Nutrition and Dietetics (M.S.) and Post-Baccalaureate Nutrition and Dietetics Program**

The College of Health and Nursing Sciences offers graduate degrees through the Departments of Health and Exercise Sciences, Nursing, and Nutrition and Dietetics.

Students have the opportunity for clinical experiences in a variety of student- and faculty-supported settings, including teaching assistantships with the HEALTH Center, which provides older adults with a variety of health promotion and disease management services, and the Employee Wellness Center, offering programs encouraging University employees to make lifestyle decisions promoting optimal health. For more information, please see <http://www.udel.edu/health>

HEALTH AND EXERCISE SCIENCES

Telephone: (302) 831-2252

For more information, please visit the department web site at <http://www.udel.edu/HESC/>

The department offers graduate programs leading to a Master of Science degree in Exercise Science with Biomechanics or Exercise Physiology as major areas of study, and a Master of Science in Health Promotion. Graduates of the programs enjoy careers in academia, research, gait analysis, cardiac rehabilitation, corporate wellness, and fitness management, among others.

The M.S. program in Exercise Science is supported with well-equipped research facilities, including three-dimensional video capabilities, electromyography, and force platforms, as well as equipment for measurement of cardiopulmonary function, body composition, and blood lactate. There are opportunities for student research involvements in the Ice Skating Science and Development Center and the Orthopedic and Biomechanical Engineering Center of the A.I. duPont Institute.

The M.S. in Health Promotion prepares professionals for the

successful design, implementation, and evaluation of health promotion interventions. The program is designed to meet the needs of both traditional graduate students and working professionals, with graduates having the skills and knowledge to produce a positive impact on health behaviors.

ADMISSION REQUIREMENTS

1. A bachelor's degree based on a four-year curriculum in an accredited college or university.
2. Acceptable undergraduate transcripts.
3. The equivalent of an undergraduate major in physical education or related discipline.
4. Three letters of recommendation indicating the capability, interest, maturity, and scholarly potential of the candidate for graduate study.
5. Acceptable GRE scores (over 1050 combined math and verbal scores).

Admission is selective and competitive, based on the number of well-qualified applicants and the limits of available faculty and facilities. Those who meet stated minimum academic requirements are not guaranteed admission, nor are those who fail to meet those requirements necessarily precluded from admission if they offer other appropriate strengths. See the Admission Information chapter in this catalog for additional information.

REQUIREMENTS FOR THE DEGREES

Students selecting the master of science program may complete degree requirements on a full- or part-time basis. Each student, with the assistance of an advisor, must develop and pursue a program of

study designed around one of the areas of study (biomechanics, exercise physiology, or health promotion). These programs must be approved by the Department's graduate committee during the student's second semester of graduate study.

Students in the M.S. program in Exercise Science choose a concentration in either Biomechanics or Exercise Physiology. The degree requirements include 15 credits within the program, 6 credits in cognate areas outside the program, 3 credits of electives, and 6 credits of thesis. HESC 601 Research Methods and HESC 602 Statistics are required of all students.

The M.S. in Health Promotion is a 33 credit non-thesis program that includes 18 credits of required course work. Students select an area of emphasis that focuses on a specific population or behavior for the remaining requirements. Areas of emphasis include exercise science, nutrition, cardiac rehabilitation, and aging.

NURSING

Telephone (302) 831-1255

For more information, please visit the department web site at <http://www.udel.edu/nursing/graduate.html>

E-mail: UD-gradnursing@udel.edu

The Department of Nursing offers a program leading to a Master of Science in Nursing (M.S.N.) degree, a M.S. in Health Sciences Administration, and Post-Master's Certificates. The program is designed to prepare Clinical Nurse Specialists (CNS), Health Services Administrators, Family Nurse Practitioners (FNP), and combined CNS/Nurse practitioners. Clinical specialization in the CNS concentration is offered in gerontology, cardiopulmonary, oncology/immune deficiency, pediatrics, psychiatric, and prenatal/women's health. Health Services administration prepares nurses for leadership positions as nurse managers at a variety of levels. The Family Nurse Practitioner concentration prepares nurses to provide primary health care to clients of all ages. The combined CNS/NP programs combine the knowledge of the CNS with the skills of a nurse practitioner within the specialty. Post-master's certificate programs are available in all specialties for students who already hold a Master of Science in Nursing degree. All graduates will be qualified to sit for the national certifying examinations.

The graduate program includes core concepts of advanced practice nursing as well as concepts specific to the area of specialization. The curriculum is built on the theories and professional practice students have obtained at the baccalaureate level of nursing education and provides a foundation for future doctoral study.

Independent and interdependent functions of nursing are emphasized as important in achieving the health goals of individuals, families, and communities. Thus, graduates of the program are prepared to improve the quality of nursing practice and to influence the delivery of health care. Clinical resources of the department include a wide variety of facilities in Delaware, Pennsylvania, Maryland, and New Jersey.

The majority of students attend classes on a part-time basis. All classes are held after 3:00 p.m., in order to accommodate working nurses. Alternative delivery methods are available for selected courses, including videotaping and WEB-enhanced courses. The Health Services Administration concentration is offered totally in a WEB-enhanced or WEB-based format.

The programs offered by the Department of Nursing are fully accredited by the National League for Nursing Accrediting Commission. The address of the National League for Nursing is 360 Hudson Street, NY, NY 10014. (212) 989-9393. They also have received provisional accreditation from the Commission for Collegiate Nursing Education.

REQUIREMENTS FOR ADMISSION TO THE M.S.N. PROGRAM

To be considered for admission, applicants are expected to have a baccalaureate degree in nursing from an NLN accredited school of nursing. Applicants are evaluated on the following criteria: (1) satisfactory performance in undergraduate academic work as well as in upper-division nursing courses; (2) satisfactory performance on the GREs; (3) completion of an undergraduate statistics course; (4) a total of three academic and/or professional references; (5) licensure as a registered nurse in Delaware or in the state where clinical practice is to be arranged; and (6) an interview with a faculty member from the graduate program. For international students, a minimum score of 600 on the written Test of English as a Foreign Language or 250 on the equivalent computer-based test is recommended.

One year of recent clinical experience is required prior to starting the clinical courses. For CNS and NP students, completion of an undergraduate health assessment course is recommended. All applicants are considered on an individual basis.

Admission is selective and competitive based on the number of well-qualified applicants and the limits of available faculty and facilities. Those who meet stated minimum academic requirements are not guaranteed admission, nor are those who fail to meet these requirements necessarily precluded from admission if they offer other appropriate strengths. See the Graduate Admissions chapter in this catalog for additional information.

REQUIREMENTS FOR THE DEGREE

Students in the Clinical Nurse Specialist and Health Services Administration concentrations must complete 34 and 36 credit hours of graduate study respectively for the M.S.N. Those pursuing the Family Nurse Practitioner concentration and combined CNS/NP programs must complete 43 credit hours. All students take at least 15 credits of core courses and research.

Students have the option of writing either a thesis or a non-thesis scholarly project to meet the program requirements or they may complete a Research Dissemination course. Those who choose to write a thesis conduct the necessary research and receive six credits (NURS 869) for the completed study.

Core Courses for all Programs	Credits
NURS 803 Theoretical Foundations of Nursing	3
NURS 804 Advanced Nursing Practice: Roles and Issues	3
NURS 810 Research Methods in Nursing	3
EDUC 665 Elementary Statistics	3
Three credits from among the following:	
NURS 868 Scholarly Projects	3
NURS 869 Master's Thesis	6
NURS 887 Application of Research in Nursing	3
TOTAL CORE CREDITS	15

CLINICAL NURSE SPECIALIST	Credits
Core Courses	15
NURS 820 Advanced Health Assessment	3
NURS 821 Advanced Pathophysiology*	3
NURS 886 Clinical Nurse Specialist Role Integration	4

*PSYC 829 Advanced Psychopathology required for Psychiatric Nursing Specialty instead of NURS 821)

REQUIRED COURSES FOR EACH SPECIALITY

Nursing of Children

NURS 854 Nursing of Children I	3
NURS 855 Nursing of Children II	3

Gerontologic Nursing

NURS 831	Comprehensive Assessment of Older Persons	3
NURS 832	Health Promotion, Disease Prevention and Disease Management for Older Persons	3

Cardiopulmonary Nursing

NURS 840	Cardiopulmonary Nursing I	3
NURS 841	Cardiopulmonary Nursing II	3

Perinatal/Women's Health Nursing

NURS 850	Nursing of Women and Newborns I	3
NURS 851	Nursing of Women and Newborns II	3

Oncology/Immune Deficiency Nursing

NURS 845	Oncology/Immune Deficiency Nursing I	3
NURS 846	Oncology/Immune Deficiency Nursing II	3

Psychiatric Nursing

NURS 871	Psychiatric Mental Health Nursing I	3
NURS 872	Psychiatric Mental Health Nursing II	3

TOTAL CREDITS REQUIRED 34

FAMILY NURSE PRACTITIONER**Credits**

Core Courses		15
NURS 820	Advanced Health Assessment	3
NURS 821	Advanced Pathophysiology	3
NURS 822	Advanced Pharmacology	3
NURS 823	Management of Women's Health Care	3
NURS 824	Management of Children's Health	3
NURS 825	Management of Adult Episodic Health Needs and Problems	3
NURS 826	Management of Adult Chronic Health Needs and Problems	3
NURS 817	Preceptorship I	3
NURS 827	Preceptorship II	3
NURS 828	Nurse Practitioner Seminar	1
TOTAL CREDITS NEEDED		43

COMBINED CLINICAL NURSE SPECIALIST/NURSE PRACTITIONER**Credits**

Core Courses		15
NURS 820	Advanced Health Assessment	3
NURS 821	Advanced Pathophysiology	3
NURS 822	Advanced Pharmacology	3
NURS 817	Preceptorship I	3
NURS 827	Preceptorship II	3
NURS 828	Nurse Practitioner Seminar	1

REQUIRED COURSES FOR EACH SPECIALTY**Nursing of Children/Pediatric Nurse Practitioner**

NURS 854	Nursing of Children I	3
NURS 855	Nursing of Children II	3
NURS 824	Management of Children's Health	3
NURS 830	Advanced Management of Children and Adolescent Health Care Needs	3

Gerontologic Nursing/Geriatric Nurse Practitioner

NURS 831	Comprehensive Assessment of Older Persons	3
NURS 832	Health Promotion, Disease Prevention and Disease Management for Older Persons	3
NURS 825	Management of Adult Episodic Health Needs	3
NURS 826	Management of Adult Chronic Health Needs	3

Cardiopulmonary Nursing/Adult Nurse Practitioner

NURS 840	Cardiopulmonary Nursing I	3
NURS 841	Cardiopulmonary Nursing II	3
NURS 825	Management of Adult Episodic Health Needs	3
NURS 826	Management of Adult Chronic Health Needs	3

**Perinatal/Women's Health Nursing/
Women's Health Nurse Practitioner**

NURS 850	Nursing of Women and Newborns I	3
NURS 851	Nursing of Women and Newborns II	3
NURS 823	Management of Women's Health Care	3
NURS 829	Advanced Management of Women's Health Care	3

Oncology/Immune Deficiency**Nursing/Adult Nurse Practitioner**

NURS 845	Oncology/Immune Deficiency Nursing I	3
NURS 846	Oncology/Immune Deficiency Nursing II	3
NURS 825	Management of Adult Episodic Health Needs	3
NURS 826	Management of Adult Chronic Health Needs	3

TOTAL CREDITS NEEDED 43

HEALTH SERVICES ADMINISTRATION**Credits**

Core Courses		15
Elective		6
NURS 819	Financial Management in Health Services Organizations	3
NURS 836	Health Administration Theories	3
NURS 837	Health Planning Strategies	3
NURS 838	Health Services Evaluation	3
NURS 864	Health Services Administration Practicum	3
TOTAL CREDITS NEEDED		36

POST MASTER'S CERTIFICATE OPTION

Post Master's Certificate programs are available in all specialties. The Post Master's Certificate option is designed to provide individuals who already hold a Master of Science in Nursing degree with the core courses and clinical experiences necessary for eligibility for advanced certification. The number of credits varies with the area of concentration and the student's past academic record. Students must complete all course requirements within five years of matriculation into the Post Master's program.

**APPLICATION PROCESS FOR
POST MASTER'S CERTIFICATE PROGRAMS**

To apply to the post-master's certificate programs, applicants must submit an application and an official transcript of undergraduate and master's degrees to the University of Delaware. Three letters of recommendation should be sent to the Graduate Program at the Department of Nursing. An interview with a faculty member is also required.

COURSE REQUIREMENTS**HEALTH SERVICES ADMINISTRATION****15 Credits**

NURS 819	Financial Management in Health Services Organizations	3
NURS 836	Health Administration Theories	3
NURS 837	Health Planning Strategies	3
NURS 838	Health Services Evaluation	3
NURS 864	Health Services Administration Practicum	3

CLINICAL NURSE SPECIALIST**16 Credits****All tracks require:**

NURS 820	Advanced Health Assessment	3
NURS 821	Advanced Pathophysiology*	3
NURS 886	Clinical Nurse Specialist Role Integration	4

*PSYC 829 Advanced Psychopathology required for Psychiatric Nursing Specialty instead of NURS 821)

Nursing of Children

NURS 854	Nursing of Children I	3
NURS 855	Nursing of Children II	3

Gerontologic Nursing

NURS 831	Comprehensive Assessment of Older Persons	3
NURS 832	Health Promotion, Disease Prevention and Disease Management for Older Persons	3

Cardiopulmonary Nursing

NURS 840	Cardiopulmonary Nursing I	3
NURS 841	Cardiopulmonary Nursing II	3

Perinatal/Women's Health Nursing

NURS 850	Nursing of Women and Newborns I	3
NURS 851	Nursing of Women and Newborns II	3

Oncology/Immune Deficiency Nursing

NURS 845	Oncology/Immune Deficiency Nursing I	3
NURS 846	Oncology/Immune Deficiency Nursing II	3

Psychiatric Nursing

NURS 871	Psychiatric Mental Health Nursing I	3
NURS 872	Psychiatric Mental Health Nursing II	3

Choose two of the following:

PSYC 612	Human Psychophysiology	3
EDCE 646	Theories of Counseling	3
EDCE 652	Special Issues in Counseling Women	3

FAMILY NURSE PRACTITIONER**23 Credits**

NURS 820	Advanced Health Assessment	3
NURS 821	Advanced Pathophysiology	3
NURS 822	Advanced Pharmacology	3
NURS 823	Management of Women's Health Care	3
NURS 824	Management of Children's Health	3
NURS 825	Management of Adult Episodic Health Needs and Problems	3
NURS 826	Management of Adult Chronic Health Needs and Problems	3
NURS 817	Preceptorship I	3
NURS 827	Preceptorship II	3
NURS 828	Nurse Practitioner Seminar	1

SPECIALIST/NURSE PRACTITIONER**22 Credits****All tracks require:**

NURS 820	Advanced Health Assessment	3
NURS 821	Advanced Pathophysiology	3
NURS 822	Advanced Pharmacology	3
NURS 817	Preceptorship I	3
NURS 827	Preceptorship II	3
NURS 828	Nurse Practitioner Seminar	1

Adult Nurse Practitioner

NURS 825	Management of Adult Episodic Health Needs and Problems	3
NURS 826	Management of Adult Chronic Health Needs and Problems	3

Pediatric Nurse Practitioner

NURS 824	Management of Children's Health	3
NURS 830	Advanced Management of Children and Adolescent Health Care Needs	3

Women's Health Nurse Practitioner

NURS 823	Management of Women's Health Care	3
NURS 829	Advanced Management of Women's Health Care	3

Geriatric Nurse Practitioner

NURS 825	Management of Adult Episodic Health Needs and Problems	3
NURS 826	Management of Adult Chronic Health Needs and Problems	3

REQUIREMENTS FOR M.S. WITH A MAJOR IN HEALTH SERVICES ADMINISTRATION

The Department of Nursing offers a major in Health Services Administration leading to a Master of Science degree. Admission to the major requires that students fulfill the following requirements:

1. Completion of a Bachelor's degree in a health-related field, such as nutrition/dietetics, sports medicine/exercise science, physical therapy, occupational therapy, public policy, information sciences, health education, and health promotion and wellness.
2. Completion of one year of management experience in a health-related field or three years experience in professional health-related practice.
3. Cumulative undergraduate Grade Point Average of 2.75 or higher on a 4.0 scale.
4. Grade Point Average in the undergraduate major of 3.0 or higher.
5. Submission of a personal statement related to their goals related to health services administration.
6. For students for whom English is not a primary language, a score of 600 on the Test of English as a Foreign Language. These students may be required to take the Test of Spoken English.
7. Submission of three letters of recommendation.

REQUIREMENTS FOR THE DEGREE

1. Completion of a minimum of 36 credits (21 credits of department core requirements; 6 credits of research design and statistics; 6 credits of non-College requirements; and 3 credits of free elective).
2. Three credits of practicum, which may be taken together or in one-credit blocks.
3. Writing of a Scholarly Project.
4. A colloquium presentation on the Scholarly Project.

CORE COURSES (21 credits)

HSAD 804	Advanced Practice Roles for Healthcare Providers	3
HSAD 819	Financial Management in Health Services Administration	3
HSAD 836	Organizational Theories in Health Services Administration	3
HSAD 837	Strategic Planning in Health Services Administration	3
HSAD 838	Health Services Evaluation and Process Improvement	3
HSAD 864	Health Services Administrative Practicum	3
HSAD 868	Health Services Administration Scholarly Project	3

NON-DEPARTMENT COURSES (6 credits)

Human Resource Management (select one)		3
UAPP 685	Personnel and Human Resource Issues	3
UAPP 837	Public Sector Human Resources	
Communication Theory (select one)		3
COMM 610	Organizational Communication Theory	
COMM 642	Topics in Organizational Administration	
COMM 656	Communication in Organizations	

RESEARCH DESIGN AND STATISTICS (6 credits)

Research Design (select one)		3
PSYC 809	Research Design	
IFST 815	Research Issues and Design	
UAPP 800	Research Design and Methodology	
IFST 615	Research Methods and Design	
Statistics (select one)		3
EDUC 665	Elementary Statistics	
UAPP 815	Public Management Statistics	
Free Elective		3
Total		36

NUTRITION AND DIETETICS

Telephone: (302) 831-8729

For more information, please visit the department web site at <http://napa.ntdt.udel.edu/index.html>

The Department of Nutrition and Dietetics offers a program leading to a Master of Science degree in Human Nutrition (with thesis and non-thesis options) as well as a post-baccalaureate dietetic internship certificate program. Resources for research and teaching in the Department of Nutrition and Dietetics include access to a wide range of laboratory, library and computer capabilities. Linkages available to support graduate research opportunities include the University Adult Day Care Center, Delaware Cooperative Extension, the State Division of Aging, the State Division of Public Health, the University Wellness Center, and local health care facilities.

Interdisciplinary work is encouraged. There is opportunity for close liaison with programs in Individual and Family Studies, Animal and Food Sciences, Chemistry and Biochemistry, Biological Sciences, Nursing, and Health and Exercise Sciences.

REQUIREMENTS FOR ADMISSION

Requirements for admission to the master's degree program include an undergraduate cumulative index (based on a 4.0 system) of 2.75 with a 3.00 average in the major field. Applicants to the thesis option are expected to have a total score (verbal plus quantitative) of 1050 or higher on the Graduate Record Examination. Non-thesis applicants require a GRE of 900 or higher. A TOEFL score of 575 or better is required for international students. Three letters of reference from individuals able to evaluate the applicant's potential for successful graduate work are also necessary to complete the application file. See also the chapter "Graduate Admissions" in this catalog.

Prerequisite courses to regular status include: human or animal physiology, inorganic and organic chemistry, biochemistry (preferably with lab), and one semester of human nutrition having a biochemistry prerequisite. Students planning to pursue thesis research topics related to social science aspects of nutrition and food habits should have some courses in sociology, psychology, anthropology, etc.

Students seeking to enter the program from undergraduate majors other than nutrition should expect to take prerequisite courses in sciences and nutrition prior to admission on regular status.

Applications are reviewed as they are completed. To assure eligibility for course registration as a matriculated graduate student, files should be *complete* at least two months prior to the start of the regular semester session. Admission to the program is selective and competitive based on the number of applicants and limits of available faculty and facilities. Those who meet minimum academic requirements are not guaranteed admission.

FINANCIAL AID

A limited number of teaching assistantships/tuition scholarships are available on a competitive basis. To be eligible the student must complete an application file and must be qualified for admission in regular status. Funding decisions are made separately from admission decisions. First priority is given to thesis students. Please refer to the chapter "Graduate Fellowships and Assistantships" in this catalog for more information.

REQUIREMENTS FOR THE DEGREE**Thesis Option**

A minimum of 32 credits at the graduate level is required, 6 of which are thesis-related and 14-17 credits in the Department of Nutrition and Dietetics (2 seminar credits and 12-15 course credits). The remaining credits are obtained through courses in related areas such as chemistry, biology, statistics/experimental design, food science, physical education, psychology, sociology, anthropology, communication, etc. Selection of these courses will depend in part on the specific needs of the student and on the student's professional or research interests.

Core course requirements include: NTDT 611 (Advanced Nutrition), a graduate level biochemistry course, and a graduate level course in statistics/experimental design.

Degree completion also requires: 1) presentation of thesis research results in seminar format to the departmental faculty, 2) submission of manuscript draft for publication, and 3) satisfactory performance on the final oral examination.

Non-Thesis Option

A minimum of 32 credits at the graduate level is required, including 17 credits in the Department of Nutrition and Dietetics and a 3 credit scholarly project. The remaining 15 credits are obtained through non-departmental courses in related areas. Degree completion also requires satisfactory performance on a written comprehensive examination and presentation of scholarly project at a department seminar.

DIETETIC INTERNSHIP CERTIFICATE PROGRAM

A post-baccalaureate dietetic internship developed in cooperation with the Delaware Division of Public Health provides an in-depth experience in clinical nutrition, food service management, and public health nutrition. This program is accredited by the Commission on Accreditation for Dietetics Education and leads to certification as a registered dietitian by the American Dietetic Association. The University of Delaware Dietetic Internship is delivered on-line. Students who live outside the immediate Delaware-Mid-Atlantic region will be required to locate their own preceptors and facilities, subject to approval by the Delaware Internship faculty. Evaluation of eligibility for admission is made by a departmental faculty review committee. Evidence of completion of a baccalaureate degree and courses required as part of the degree-granting didactic program must be provided as part of the application. Acceptance into the internship is on a competitive basis. Applications are read and evaluated by an internship acceptance committee who use a numerical rating scale. Students who provide evidence of a considerable amount of work experience in a professional capacity may be accepted based on the merits of their total application even if the undergraduate grade point average is less than the desired minimum.

Prospective students should submit a completed application form, transcript(s) of all undergraduate and post-baccalaureate course work, Graduate Record Examination (GRE) scores, and three references from individuals able to evaluate the applicant's potential for successful completion of the internship. Admission to regular status requires 1) GRE scores of 900 or higher (verbal plus quantitative); 2) overall undergraduate grade point average (GPA) of 2.75 or higher;

3) undergraduate GPA of 2.75 or higher in major courses. Students applying for this experience must have completed the courses necessary for American Dietetic Association verification.

Students are required to participate in a two-week orientation at the beginning of the internship and to earn a total of 12 credits. Students must complete the equivalent of 28 weeks of supervised clinical practice, consisting of 38 hours per week: NTDT 550 (fall, 4 credits) and NTDT 551 (spring, 4 credits). In addition, students must complete a 2-hour interactive distance learning seminar each week during both semesters: NTDT 650 (fall, 2 credits) and NTDT 651 (spring, 2 credits). Of the 12 credits required to complete the certificate program, only the four credits from NTDT 650 and 651 may be applied toward the Master's degree. Additional information regarding progress evaluation and retention/termination policies are available from the department office.