# College of healith and nursing sciences 

- Advisement
- Pass/Fail Courses
- Dean's Scholar Program
- Health and Exercise Sciences

$\mathbf{T}^{\text {ni}}$The College of Health and Nursing Sciences includes the Departments of Health and Exercise Sciences, Medical Technology, Nursing, and Nutrition and Dietetics. Undergraduate major degree programs are offered in applied nutrition, athletic training, dietetics, exercise science, health and physical education, medical technology, nursing, nutritional sciences, and health behavior management.

Students in the college are encouraged to engage in undergraduate research projects, internships, study abroad, seminars, and the college's numerous student organizations. Students interested in such opportunities should consult with their faculty advisor. For more information, contact Dean Betty Paulanka, 345 McDowell Hall, or send email to ud.chns@udel.edu or visit www.udel.edu/health.

## ADVISEMENT

Students are assigned a faculty advisor in their major department to provide advice on course selection, degree requirements, career opportunities, and graduate study. Faculty advisors can also assist with setting up special opportunities such as internships and research experience. It is recommended that students meet with their faculty advisors at least once each semester.

## PASS/FAIL COURSES

Courses taken pass/fail cannot be used to complete major requirements in the College of Health and Nursing Sciences, Pass/fail courses can be counted only as free electives.

- Medical Technology
- Nursing
- Nutrition and Dietetics


## DEAN'S SCHOLAR PROGRAM

Students in all of the college's majors are eligible to participate in the University's Honors Program, undergraduate research, and Degree with Distinction. Honors Degrees are available to students in programs offered by the Departments of Health and Exercise Sciences, Medical Technology, Nursing, and Nutrition and Dietetics. Also the Dean's Scholar's Program exists to serve the needs of students whose clearly defined educational goals cannot be effectively achieved by pursuing the standard curricula for all existing majors, minors, and interdepartmental majors sponsored by the University. Driven by an overarching passion or curiosity that transcends typical disciplinary bounds and curricula, a Dean's Scholar's intellectual interests may lead to broad interdisciplinary explorations of an issue or to more intense, in-depth studies in a single field at a level akin to graduate work. In consultation with faculty advisors and the Associate or Assistant Dean of their college, Dean's Scholars design an imaginative and rigorous individual plan of study to meet the total credit hours required for graduation. Contact the Assistant/Associate Dean in the college or go to www.udel.edu/deansscholar/ for more information and the application.

## HEALTH AND EXERCISE SCIENCES

The offerings of the Department of Health and Exercise Science include elective lifetime activity courses, four undergraduate major degree programs, and undergraduate minors in Coaching Science and Strength and Conditioning.

## LIFETIME ACTIVITIES PROGRAM

A varied activity program is available to all students on a pass/fail credit basis. Courses are provided for all levels of ability and interests.

The objectives of the lifetime activities program are: (1) to provide knowledge and skills essential for leisure-time enjoyment, (2) to develop healthy exercise habits as well as a sound knowledge base in the scientific principles of physical activity, and (3) to provide an enjoyable atmosphere for learning skills that encourage lifetime participation.

## DEGREE PROGRAMS

The Department of Health and Exercise Sciences offers a broad spectrum of undergraduate programs that prepare students for a variety of careers in the arenas of health care, education, recreation, and sport/fitness management. Students graduate with a Bachelor of Science degree in one of four academic majors: Athletic Training, Exercise Science, Health and Physical Education, or Health Behavior Management.

The Athletic Training program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). The Health and Physical Education program is accredited by the National Council for Accreditation of Teacher Education (NCATE).

Concentrations within the Exercise Science major allow students to further specialize in Biomechanics, Exercise Physiology or Figure Skating Science. Students in the Health Behavior Management major select a concentration in Fitness Management, Sport Management, or Recreation and Park Administration. Internships, practicums, and clinical experiences are available in each program. The Department also offers minors in Coaching Science and Strength Conditioning.

## HONORS DEGREES IN THE DEPARTMENT OF HEALTH AND EXERCISE SCIENCES

Students can earn an Honors Bachelor of Science Degree in Athletic Training, Exercise Science, Health Behavior Management, or Health and Physical Education by completing the following requirements:

1. All requirements for the Bachelor of Science Degree in the respective major
2. All of the University's generic requirements for the Honors Baccalaureate Degree (see page 43)

Telephone: (302) 831-2265
www.udel.edu/HESC

## DEGREE REQUIREMENTS

## GENERAL STUDIES REQUIREMENTS

UNIVERSITY REQUIREMENTS (required for all programs)
ENGL 110 Critical Reading and Writing (minimum grade C-) $\ldots$
Multicultural course:
Three credits in an approved course or courses stressing, ....... 3 multicultural, ethnic, ond/or gender-related content. (See p. XXX) This course can be used in the Breadth Requirements, Major Requirements, or Electives.

## COLLEGE REQUIREMENTS

Second Writing Course (minimum grade $C$-)
Must be an approved course that involves a significant writing experience including two papers of moderate length (must state "Second Writing Course Requirement" in the Registration Catalog)

## BREADTH REQUIREMENTS

## Group A-Communication Skills

Can choose selected courses from the following departments: Communication (COMM), English (ENGL - courses must state that course "Meets Arts and Science Second Writing Requirement" to count in this area; must be SEPARATE from the Second Writing Course requirement), Foreign Languages and Literature (FLIT 100, 101, 105, and 106), Foreign Languages (includes ARAB, CHIN, FREN, GREK, GRMN, HEBR, ITAL, JAPN, JWST, LATN, PORT, RUSS, SPAN, and SWAH), and
linguistics ([ING) Linguistics ( (INGG)

## Group B -Humanities and Fine Arts

Can choose selected courses from the following departments: Art (ART), Art History (ARTH), Art Conservation (ARTC), Comparative Literature (CMLT), English (ENGL - must be literature courses), Foreign Languages and Literature (FLLT - does not include 100, 101, 105, and 106), Museum Studies (MSST), Music (MUSC), Music Education (MUED), Philosophy (PHII), and Theater (THEA)

## Group C-History and Social Sciences

Can choose selected courses from the following departments: Anthropology (ANTH), Black American Studies (BAMS), Criminal Justice (CRUU), History (HIST), Individual and Family Studies (IFST), Political Science and International Relations (POSC), Psychology (PSYC), Sociology (SOCI), and Women's Studies (WOMS)

## Group D-Biological/Natural Sciences and Mathematics

Can choose selected courses from the following departments: Accounting (ACCT), Animal Science (ANSC), Biological Sciences (BISC), Chemistry (CHEM), Computer and Information Science (CISC), Computer Engineering (CPEG), Electrical Engineering (ELEG), Engineering Technology (EGTE), Materials Science (MASC), Mechanical Engineering (MEEG), Entomology and Applied Ecology (ENWC), Food Science (FOSC), Geography (GEOG), Geology (GEOL), Marine Studies (MAST), Mathematics (MATH), Medical Technology (MEDT), Nutrition and Dietetics (NTDT), Physics and Astronomy (PHYS), Plant and Soil Sciences (PLSC), Science (SCEN), and Statistics (STAT)
Additional Breadth Requirements (varies by program)
Most programs require additional credits from Groups A, B, C, and D; additional courses can be chosen from any of the areas.

## DEGREE: BACHELOR OF SCIENCE MAJOR: ATHLETIC TRAINING

CURRICULUM CREDITS
See University and Department requirements (page 176) for additional degree requirements.

## BREADTH REQUIREMENTS

Group A-Communicotion/Writing Skills ................... 6
Must include courses from two different departments
Group B -Humanities/Fine Arts
Group C-History/Social Sciences ................................. 6
Must include courses from two different departments.
Group D-Natural and Biological Sciences/Mathematics
9
Must include an approved 3 -credit MATH course at the 100 -level or higher, plus additional courses from two different departments and at least 3 credits of BISC
MAJOR REQUIREMENTS (MINIMUM GRADE C- IN EACH)
NTDT 200
Nutrition Concepts

BISC 106 Elementary Human Physiology or
BISC 276 Human Physiology ........................................ 3
$\begin{array}{ll}\text { STAT } 200 & \text { Basic Statistical Practice. } \\ \text { CSCC } 241 & \text { Ethical |ssues in Health Care }\end{array}$
CSCC 241 Ethical Issues in Health Care
HESC 214 Wellness: A Way of Life
.3

HESC 220 Anatomy and Physiology
HESC 258 Advanced Taping and Bracing Methods
$\begin{array}{ll}\text { HESC } 305 & \text { Fundamentals of Athletic Training } \\ \text { HESC } 320 & \text { Principles of Strength/Conditioning }\end{array}$
HESC 320 Principles of Strength/Conditioning.
$\begin{array}{ll}\text { HESC } 350 & \text { Basic Concepts in Kinesiology } \\ \text { HESC } 357 & \text { Athletic Training Practicum II. }\end{array}$
HESC 3.57 Athletic Training Practicum II
HESC 395 Sports Medicine Pharmacology
HESC 400 Research Methods.
HESC 405 Rehabilitation of Athletic Injuries
$\begin{array}{ll}\text { HESC } 407 & \text { Prevention/Recognition/Athletic Injuries } \\ \text { HESC } 409 & \text { Therapentic Modalities }\end{array}$
HESC 409 Therapeutic Modalities
HESC 420 Functional Human Anatomy
HESC 426 Biomechanics 1
HESC 430 Physiology of Activity
HESC 431 Physiology of Activity Lab
HESC 440 Strategies For Athletic Peak Performance.
HESC 448 Organization \& Administration/Athletic Training
$\begin{array}{ll}\text { HESC } 449 & \text { Advanced Topics in Sports Medicine } \\ \text { HESC } 457 & \text { Athletic Training Practicum IV }\end{array}$
HESC 457 Athletic Training Practicum IV
HESC 480 Upper Extremity and Spine Evaluation
HESC 481 Lower Extremity and Spine Evaluation …....................................................... 3

## ELECTIVES

After required courses are completed, sufficient elective credits must be taken to meet the minimum credits required for the degree

CREDITS TO TOTAL A MINIMUM OF

## ATHLETIC TRAINING ADMISSION REQUIREMENTS AND APPLICATION PROCEDURE

Incoming freshmen and transfer students interested in the athletic training major are admitted to "Athletic Training Interest." At the completion of the freshman year, students who wish admission into the athletic training major must have completed the following:
Freshman Year - Athletic Training Curriculum:

| BISC 106 (or BISC 207) ... 3 | ENGL 110 |
| :---: | :---: |
| HESC 210 ....................... 3 | MATH |
| HESC 220 ....................... 3 | HESC 214 |
| General Studies ................ 3 | HESC 305 (Spring only) ........... 3 |
| General Studies .............. $\frac{3}{15}$ | General Studies (Multicultural) . ${ }^{\frac{3}{5}}$ |

## TECHNICAL STANDARDS FOR ADMISSION

The Athletic Training Education Program at the University of Delaware is a rigorous and intense program that places specific requirements and demands on the students enrolled in the program. An objective of this program is to prepare graduates to enter a variety of employment settings and to render care to a wide spectrum of individuals engaged in physical activity. The technical standards set forth by the Athletic Training Education Program establish the essential qualities considered necessary for students admitted to this program to achieve the knowledge, skills and competencies of an entry-level athletic trainer, as well as meet the expectations of the program's accrediting agency (Commission on Accreditation of Allied Health Education Programs - "CAAHEP"). The following abilities and expectations must be met by all students admitted to the Athletic Training Education Program. In the event a student is unable to fulfill these technical standards, with or without reasonable accommodation, the student will not be admitted into the program.

Compliance with the program's technical standards does not guarantee a student's eligibility for the NATABOC certification exam.

Candidates for selection to the Athletic Training Education Program must demonstrate:

1. the mental capacity to assimilate, analyze, synthesize, integrate concepts and problem solve to formulate assessment and therapeutic judgments and to be able to distinguish deviations from the norm;
2. sufficient postural and neuromuscular control, sensory function, and coordination to perform appropriate physical examinations using accepted techniques; and accurately, safely, and efficiently use equipment and materials during the assessment and treatment of patients;
3. the ability to communicate effectively and sensitively with patients and colleagues, including individuals from different cultural and social backgrounds; this includes, but is not limited to, the ability to establish rapport with patients and communicate judgments and treatment information effectively. Students must be able to understand and speak the English language at a level consistent with competent professional practice;
4. the ability to record the physical examination results and a treatment plan clearly and accurately;
5. the capacity to maintain composure and continue to function well during periods of high stress;
6. the perseverance, diligence and commitment to complete the athletic training education program as outlined and sequenced;
7. flexibility and the ability to adjust to changing situations and uncertainty in clinical situations;
8. affective skills and appropriate demeanor and rapport that relate to professional education and quality patient care.
Candidates for selection to the athletic training education program will be required to verify they understand and meet these technical standards or that they believe that, with certain
accommodations, they can meet the standards.
The Director or Affirmative Action and Multicultural Programs will evaluate a student who states he/she could meet the program's technical standards with accommodation and confirm that the stated condition qualifies as a disability under applicable laws.

If a student states he/she can meet the technical standards with accommodation, then the University will determine whether it agrees that the student can meet the technical standards with reasonable accommodation; this includes a review whether the accommodations requested are reasonable, taking into account whether accommodation would jeopardize clinician/patient safety, or the educational process of the student or the institution, including all coursework, clinical experiences and internships deemed essential to graduation.

Six criteria are evaluated as part of the admission process in accepting students into the Athletic Training Education Program:

1. Overall GPA
2. Prerequisite Courses GPA
3. Directed Observation Hours
4. Letters of Recommendation
5. Interview
6. Essay

In evaluating the criteria, different ranking scales (1-5, 1-10, etc) are used. In each case the top student in each criteria would receive the lowest number awarded For example, in ranking Prerequisite Courses GPA the student with the highest GPA would receive a score of (1) and would be considered the best candidate in that particular criteria.

The six criteria are evaluated in the following manner:
Overall GPA - the total number of candidates applying for admission to the program is divided by (10).. For example, if twenty students apply, 20 is divided by 10 and the result is 2 . We then rank the overall GPA of the 20 students from high to low. The top two students would receive a score of (1). The next two highest GPAs would receive a score of (2). We continue scoring the stadents until everyone receives a score.

Prerequisite Courses GPA - The candidates GPAs are ranked from high to low. The person with the highest GPA receives a score of (1); this number is then multiplied by two ( $1 \times 2=2$ ) for a total score of two. We continue scoring the students until everyone receives a score. We believe the Prerequisite GPA is a very good predictor for success in our program so that is why we weight this criteria more heavily.

Directed Observation Hours - Students who obtain between 100-149 directed observation hours receive a score of three (3). Students who obtain between 150-199 directed observation hours receive a score of two (2). Students who obtain over 200 directed observation hours receive a score of one (1)

Letters of Recommendation - Letters of recommendation are evaluated using a ranking scale of (1-5). Each athletic training faculty member reads the three letters of recommendation and gives them a numerical score of between (1-5). A score of one would be considered excellent letters of recommendation. A score of five would be judged to be a poor letter of recommendation. All letters of recommendation are read independently. The scores from all the evaluators are added together and then divided by the total number of evaluators. The averaged score is then recorded on the admission ranking form.

Interview - Each candidate seeking admission to the ATEP is given a formal interview, conducted by the athletic training faculty. A standardized form, worth 100 points is used by each evaluator. At the end of the interview process the score for each candidate is totaled and then divided by the evaluators. The person with the lowest score receives a score of (1). This number is then multiplied by three ( 1 X $3=3$ ) for a total score of three. We continue scoring the students until everyone has a score. We believe the interview score is the best
predictor for success in our program.
Essay - The essay criteria is scored using the same method as criteria number four (Letters of Recommendation),

When all the criteria have been scored/ranked, the six scores are added together, to make a grand total score. The candidate with the lowest grand total score is ranked as the first candidate who will be offered admission to the ATEP.

Acceptance into the program is based upon the stated criteria and the number of available openings in the program. Meeting the minimum admission requirements does not guarantee acceptance into the program. Offers of admission into the athletic training education program are presented on a competitive basis to those individuals who are most qualified. Students may apply for admission to the program at the end of the spring semester Acceptance/rejection letters will be mailed to each candidate by July 1 .

Students interested in transferring from another institution or from another major at the University of Delaware must meet University and College of Health and Nuising Sciences transfer requirements and complete the same requirements as freshmen in the Athletic Training Interest Program.

Students enrolled in the Athletic Training Program meet with the Program Director to plan the clinical education experience Clinical education experiences are initiated in the first year of the student's program and are designed to provide the student with sufficient opportunity to develop specific competencies pertaining to the health care of the athlete and those involved in physical activity. The clinical experience provides the student with an opportunity for integration of psychomotor, cognitive and affective skills with in the context of direct patient care The skills are identified within the psychomotor and clinical proficiencies aspects of each of the domains included in the document, "Athletic Training Education Competencies." The development of psychomotor skills represents a significant focus of the student's clinical experience; ample opportunity is also provided for development and demonstration of competencies within the cognitive and the affective aspects of each domain identified in the above document.

A minimum period of two academic years of clinical experience associated with course credit is required. The clinical setting shall include the athletic training room(s), athletic practices, and competitive events for a minimum of two academic years under the direct supervision of a Certified Athletic Trainer. The student will be exposed to upper extremity, lower extremity, equipment intensive, and general medical experiences of both genders. The Athletic Training Faculty formally evaluates each student's progress at the end of each semester

Once students are admitted to the program, they are required to maintain the following minimum standards:

1. complete 200 clinical hours per semester;
2. GPA of 2.0 ;
3. satisfactory clinical education evaluations;

4 meet the technical standards for admission
Students who do not maintain the above minimum standards are placed on probation and are required to correct all deficiencies by the end of the next semiester. Students who do not correct deficiencies are dropped from the curriculum.

## NATABOC REQUIREMENTS FOR CERTIFICATION

1. Completion of the Athletic Training Program.
2. Proof of graduation (an official transcript).
3. Proof of current certification in CPR
4. Completion of a minimum of 800 hours of athletic training clinical experience under the supervision of a NATABOC certified athletic trainer. The hours must be accumulated over a minimum of two years and not more than five years. No more than 400
clinical education hours may be counted in one year. At the time of application, a candidate for certification must verify that at least twenty-five percent ( 200 hours) of the required athletic training experience hours credited in fulfilling the Certification Requirements were obtained in actual (on location) practice and/or game coverage with one or more of the following sports: football, soccer, volleyball, basketball, and lacrosse.
5. The endorsement of the certification application by an NATABOC Certified Athletic Trainer:

## EXERCISE SCIENCE

ADMISSION REQUIREMENTS AND APPLICATION PROCEDURE
Incoming freshmen and transfer students interested in the Exercise Science major are admitted to "Exercise Science Interest." After the completion of the freshman year, students may apply for admission to the Exercise Science major and a concentration within the major. A faculty admission committee for each concentration will make decisions on acceptance based on the following criteria:

1. A competitive cumulative GPA (Students admitted to the major in recent years have had GPAs of at least 3.0.)
2. Successful completion (minimum grade C -) of the following courses: HESC 210, HESC 214, HESC 220, and a BISC course with a lab.
3. Completion of the appropriate application form for the chosen concentration. Applications are accepted at the end of each Fall and Spring semester.
4. Each of the concentrations have additional requirements, as follows:
a. Biomechanics: Students must also have successfully complet ed (minimum grade of C-) MATH 241.
b. Exercise Physiology: Students must also have successfully completed (minimum grade of C-) BISC 208
c. Figure Skating Science: Each student must meet with the Director of the Figure Skating Science Concentration to determine eligibility

## DEGREE: BACHELOR OF SCIENCE <br> MAJOR: EXERCISE SCIENCE CONCENTRATION: BIOMECHANICS

CURRICULUM
CREDITS
See University and Department requirements (page 176) for additional degree requirements.

## BREADTH REQUIREMENTS

Group A-Communication/Writing Skills

Must include courses from two different departments.
Group B—Humanities/Fine Arts ....................................................... 3
Group C-History/Social Sciences ................................................... 6 Must include PSYC 201 and either PSYC 325 or PSYC 334.
Group D-Natural and Biological Sciences/Mathematics.................. 23
Must include BISC 207, BISC 208, CHEM 103, CHEM 104, MATH 241, NTDT 200
Additional credits from Group A-D
MAJOR REQUIREMENTS (minimum grade C- in each)
HESC 210 Safery, First Aid, \& Emergency Care ........................................ 3


HESC 350 Basic Concepts in Kinesiology ................................................... 3
Biomechanics I Kinesiology
. 3
HESC 426 Biomechanics I
HESC 430 Physiology of Activity . 3
HESC 431 Physiology of Activity Lab .............................................................. 1
CONCENTRATION REQUIREMENTS (minimum grade C - in each)
BISC 276 Human Physiology
or
BISC 306 General Physiology................................................................... 4
CISC 105 General Computer Science

| HESC 400 | Research Methods |
| :---: | :---: |
| HESC 427 | Biomechanics III |
| MATH 242 | Analytic Geometry and Calculus B |
| MATH 349 | Elementary Linear Algebra |
| MEEG 112 | Statics |
| MEEG 211 | Dynamics |
| PHYS 207 | Fundamentals of Physics I. |
| PHYS 208 | Fundamentals of Physics II |
| STAT 200 | Basic Statistical Practice |
| ELECTIVES |  |
| After required courses are completed, sufficient elective credits must be taken to meet the minimum credits required for the degree. |  |
| CREDITS TO | OTAL A MINIMUM OF ...................................... 120 |

## DEGREE: BACHELOR OF SCIENCE <br> MAJOR: EXERCISE SCIENCE <br> CONCENTRATION: EXERCISE PHYSIOLOGY

CURRICULUM
CREDITS
See University and Department requirements (page 176) for additional degree requirements.

## BREADTH REQUIREMENTS


MAJOR REQUIREMENTS (minimum grade c - in each)
HESC 210 Safety, First Aid, \& Emergency Care.................................. 3



HESC 426 Biomechanics ! ......................................................................

CONCENTRATION REQUIREMENTS (minimum grade c - in each)

| BISC 208 | Introductory Biology II |
| :---: | :---: |
| BISC 276 | Human Physiology |
|  |  |
| BISC 306 | General Physio |

CHEM 104 General Chemistry.............................................................................................. 4

HESC 353 Seminar in Exercise Physiology … ..................................... 1
HESC 400 Research Methods ............................................................... 3
HESC 432 Basic Exercise Prescription
or
HESC 434 Exercise Test Technology ........................................................ 3
PHYS 201 Introductory Physics I............................................................... 4
PHYS 202 Introductory Physics II .................................................................. 4
Basic Statistical Practice.
.4

## ELECTIVES

After required courses are completed, sufficient elective credits must be taken to meet the minimum credits required for the degree.
CREDITS TO TOTAL A MINIMUM OF 120

## DEGREE: BACHELOR OF SCIENCE

MAJOR: EXERCISE SCIENCE
CONCENTRATION: FIGURE SKATING SCIENCE
CREDITS
See University and Department requirements (page 176) for additional degree requirements.

## BREADTH REQUIREMENTS

Group A-Communication/Writing Skills.
Must include courses from two different departments.

Group B-Humanities/Fine Arts

3

Group C-History/Social Sciences
Must include PSYC 201 and one course from another department.
Group D-Natural and Biological Sciences/Mathematics ............... 14
Must include an approved 3 -credit MATH course at the 100 -level or higher, BISC course with lab, and NTDT 200
Additional credits from Groups A-D9

MAJOR REQUIREMENTS (minimum grade C- in each)
HESC 210 Safety, First Aid, and Emergency Care ................................ . 3
HESC 214 Wellness: A Way of Life ............................................................... 3
HESC 220 Anatomy and Physiology ....................................................................
HESC 350 Basic Concepts in Kinesiology ............................................... 3
HESC 426 Biomechanics I
 .4

HESC 431 Physiology of Activity Lab ........................................... 1
CONCENTRATION REQUIREMENTS (minimum grade $\mathbf{C}$ - in each)
HESC 250 Motor Development ...................................................................... 3

HESC 300 Issues in Physical Activity and Sports ..................................... 3
HESC 305 Fundamentals of Athletic Training ........................................................

HESC 324 Measurement and Evaluation ........................................................... 3
HESC 347 Legal Aspects of Sport Management ........................................... 3
HESC 355 Figure Skating Practicum I..................................................... 3
HESC 356 Figure Skating Practicum II................................................................ 3
HESC 440 Strategies for Athletic Peak Performance ....................................... 3
HESC 455 Figure Skating Practicum III ......................... ............................ 3



## ELECTIVES

After required courses are completed, sufficient elective credits must be taken to meet the minimum credits required for the degree
CREDITS TO TOTAL A MINIMUM OF 120

## HEALTH AND PHYSICAL EDUCATION ADMISSION

 REQUIREMENTS AND APPLICATION PROCEDUREIncoming freshmen and transfer students interested in the Health and Physical Education teacher preparation program are admitted to "Health and Physical Education Interest." After the completion of the freshman year, students may apply for admission into the Health and Physical Education major. A faculty admission committee will make decisions on acceptance based on the following criteria:

Successful completion (minimum grade C-) of the following required Freshman year courses:

| PSYC 201.................. 3 | ENGL 110 |
| :---: | :---: |
| HESC 276 ................. 2 | MATH course |
| HESC 139 ................. 3 | HESC 141 |
| HESC 143 .................. 1 | HESC 140 |
| HESC 214 ................. 3 | HESC 220 |
| *BISC w/lab ............... 4 | *EDUC 419 |
| Total Credits - ........... 16 | Total Credits |

*BISC with lab and EDUC 419 are recommended during the first year in order for students to be able to complete the program in eight semesters, but are not required for admission to the program.

Minimum cumulative GPA of 2.5 and major GPA of 2.75
Submission of a satisfactory Introductory Professional Portfolio that demonstrates a commitment to teaching (See Program Director for Details).

Completion of the appropriate application form for the major. Applications are accepted at the end of each Fall and Spring semester.

## REQUIREMENTS FOR PROGRESSION THROUGH THE PROGRAM

Criteria For Admission to the Methods Block (HESC414, 370, and 380)

- Passing scores in Praxis I
- Minimum cumulative GPA of 2.50
- Minimum GPA of 2.75 in the major
- A grade of C - or better in all required courses within the major
- Completion of all required HESC courses (with the exception of HESC 426, 430, 431, 465)
- Completion of all required EDUC courses (with the exception of EDUC 420, 430, and 400)
- Submission of a satisfactory Working Portfolio (See Program Director for Details)
Criteria for Admission to Student Teaching in Health and Physical Education
- Minimum cumulative GPA of 2.50
- Minimum GPA of 2.75 in the major
- A grade of C - or better in all required courses within the major.
- Completion of all required HESC courses (with the exception of HESC 426, 430, 431, 465)
- Completion of all required EDUC courses (with the exception of EDUC 430 and 400)
- Submission of a satisfactory Presentation Portfolio (See Program Director for Details)


## DEGREE: BACHELOR OF SCIENCE

 MAJOR: HEALTH AND PHYSICAL EDUCATIONCURRICULUM
CREDITS
See University and Department requirements (page 176) for additional degree requirements.

## BREADTH REQUIREMENTS

Group A-Communication/Writing Skills ................... 3
Group B-Humanities/Fine Arts 3
Group C-History/Social Sciences ....................... 3
Must include PSYC 201.
Group D-Nafural and Biological Sciences/Mathematics ............. 10
Must include an approved 3-credit MATH course at the 100 -level or higher, and a BISC course with lab, and NTDT 200
Additional credits from Groups A-D ........................ 3
MAJOR REQUIREMENTS (MINIMUM GRADE C- IN EACH)
EDUC 400 Student Teaching ............................................................. 9
EDUC 413 Educational Psychology - Social Aspects ..... ....................... 3
EDUC 414 Educational Psychology - Cognitive Aspects ........................... 3
EDUC 419 Diversity in the Classroom.............................................................. 3
EDUC 420 Reading in the Content Area ................................................................
EDUC 430 Classroom Management
Students must have a minimum cumulative GPA of 2500, a GPA in the major of at least 2.750 , and must apply to student teach at least one semester in advance.
HESC 121 Water Safery Instruction
or
HESC 122 Lifeguard Training..................................................................
HESC 139 Curriculum in Physical Education
HESC 140 Fundamental Skills Analysis....................................... 3
HESC 141 Adventure Challenge and Outdoor Recreation ... ..................... 1
HESC $143 \quad \begin{aligned} & \text { Skills, Techniques and Knowledge of Stunts, } \\ & \text { Tumbling and Gymnastics }\end{aligned}$
HESC 210 Safety, First Aid and Emergency Care
HESC 214 Wellness: A Way of Life .......................................................................
HESC 220 Anatomy and Physiology ............................................... 3
HESC $230 \begin{array}{ll}\text { Group Facilitation Skills in Health and Physical } \\ \text { Education }\end{array}$

HESC $251 \begin{aligned} & \text { Skills, Techniques and Knowledge } \\ & \text { of Rhythms and Dance ... }\end{aligned}$
HESC 252 Lifetime Leisure Activities ..................................................................................................
$\begin{array}{ll}\text { HESC } 255 & \begin{array}{l}\text { Skiflime, Techniques and Knowledge } \\ \text { of Racquet Sports }\end{array}\end{array}$

HESC 275 Tactical Approach to Teaching Sports ..................................... 3
HESC 276 Personal Computers in Health, ................................................ 2
Physical Education and Recreation
Issues in Physical Activity Studies and Sports .......................... 3
HESC 300
HESC 315
HESC 319
HESC 324
HESC 325
HESC 330
HESC 332
HESC 342
HESC 370
Instructional Strategies for Drug Education
Health-Related Fitness
Instructional Strategies for Human Sexuality 3
Teaching Community and Mental Health .................................... 3
Health Behavior Theory and Assessment ...................................... 3
Survey in Adaptive Physical
Education/Recreation ........................ ..................................... 3
Practicum in Methods of
Elementary Physical Education..... .......................................... 3
HESC 380 Practicum in Methods of
HESC 414 Secondary Physical Education,
Methods and Materials in Health Education ........................... 3
HESC 426 Biomechanics I ................ ........................................................... 4
HESC 430 Physiology of Activity .. . ................................................... 3
HESC 431 Physiology of Activity Lab .......................................................
HESC 465 Teaching Seminar in Health/Physical Education........... .......... 3
Students must have completed HESC 214, HESC 315, and HESC 325 prior to enrolling in HESC. 414.
In order to apply for Upper Division Clearance and enroll in methods courses, students must have completed all HESC and EDUC required courses except HESC 430, HESC 431 , HESC 426, EDUC 420, EDUC 430, EDUC 400, and HESC
465 Students must have a minimum GPA of 2.750 in the major and 2.500 overall, and have completed PRAXIS I with a passing score.

CREDITS TO TOTAL

## HEALTH BEHAVIOR MANAGEMENT ADMISSION REQUIREMENTS AND APPLICATION PROCEDURE

Incoming freshmen and transfer students interested in the Health Behavior Management major are admitted to "Health Behavior Management Interest." After the completion of the freshman year, students may apply for admission to the Health Behavior Management major and a concentration within the major. A faculty admission committee for each concentration will make decisions on acceptance based on the following criteria:

1. Successful completion (minimum grade of C-) of General Studies PSYC and SOCI courses, HESC 155, HESC 210, ENGL 110 and a MATH course.
2. Successful completion (minimum grade of C-) of HESC 202 (For students applying for the Sport Management or Recreation and Park Administration concentrations.)
3. A competitive cumulative GPA.
4. Submission of a resume.
5. Completion of the appropriate application form for the chosen concentration, including an essay. Applications are accepted at the end of each Fall and Spring semester.

## DEGREE: BACHELOR OF SCIENCE <br> MAJOR: HEALTH BEHAVIOR MANAGEMENT CONCENTRATION: FITNESS MANAGEMENT

CURRICULUM CREDITS
See University and Department requirements (page 176) for additionaldegree requirements.
BREADTH REQUIREMENTS
Group A-Communication/Writing Skills ...................................... 6
Must include courses from at least two departments
Group B-Humanities/Fine Arts ..... 3
Group C-History/Social Sciences ..... 6
Group D-Natural and Biological Sciences/Mathematics ..... 13 with lab, NTDT 200 and STAT 200
Additional credits from Groups A-D ..... 6

| MAJOR REQUIREMENTS (minimum grade c - in each) |  |
| :---: | :---: |
| FREC 201 | Records and Accounts .................................................... 3 |
|  |  |
| ACCT 200 | Survey of Accounting |
| BUAD 100 | Introduction to Business |
| HESC 155 | Personal Health Management: An Approach for a Lifetime |
| HESC 200 | Issues in Health Behavior Management |
| HESC 210 | Safely, First Aid and Emergency Care |
| HESC 332 | Health Behavior Theory and Assessment |
| HESC 335 | Health and Aging |
| HESC 342 | Survey in Adaptive Physical Education |
| HESC 354 | Seminar in Fitness Management |
| HESC 400 | Research Methods |
| HESC 422 | Organization and Administration of Leisure Services |
| HESC 464 | Internship ............ ..................................................... 9 |
| CONCENTRATION REQUIREMENTS (minimum grade c - in each) |  |
| HESC 220 | Anatomy and Physiology ............ ....................................... 3 |
| HESC 263 | Leadership Practicum |
| HESC 305 | Fundamentals of Athletic Training |
| HESC 320 | Strength and Conditioning |
| HESC 329 | Dynamics of Team Problem Solving |
| HESC 350 | Basic Kinesiology |
| HESC 430 | Physiology of Activity . |
| HESC 431 | Physiology of Activity Lab |
| HESC 432 | Basic Exercise Prescription |
| HESC 445 | Concepts of Physical Fitness Testing |
| HESC 490 | Development of Health Promotion Programs |
| NTDT 310 | Nutrition and Activity ................................................... 3 |
| ELECTIVES |  |
| After required courses are completed, sufficient elective credits must be taken to meet the minimum credits required for the degree. |  |
| CREDITS | OTAL A MINIMUM Of ....................................... 120 |

DEGREE: BACHELOR OF SCIENCE CONCENTRATION: RECREATION AND PARK ADMINISTRATION
CURRICULUM ..... CREDITSSee University and Department requirements (page 176) for additionaldegree requirements.
BREADTH REQUIREMENTS
Group A-Communication/Writing Skills ..... 6
Must include courses from at least two departmentsGroup B-Humanities/Fine Arts6
Group C-History/Social Sciences ..... 6
Must include PSYC and SOCl courses
Group D-Natural and Biological Sciences/Mathematics ..... 10
Must include an approved 3-credit MATH course at the 100 -level or higher andSTAT 200.
Additional credits from Groups A-D ..... 9
MAJOR REQUIREMENTS (minimum grade C- in each)
FREC 20i Records and Accounts ..... 3
or Survey of Accounting ..... 4
BUAD 100 Introduction to Business ..... 3
HESC 155 Personal Health Management: An Approach for a Lifetime .....  3
HESC 200 Issues in Health Behavior Management ..... 3
HESC 210 Safety, First Aid and Emergency Care ..... 3
HESC 332 Healith Behavior Theory and Assessment3
3
3
HESC 335 Health and Aging HESC 335 Health and Aging ..... $\begin{array}{r}3 \\ 3 \\ \hline\end{array}$
HESC 354 Seminar in Fitness Management ..... 1
HESC 400 Research Methods ..... 3
HESC 422 Organization and Administration of Leisure Services3
9
HESC. 464 Internship
CONCENTRATION REQUIREMENTS (minimum grade c- in each)
HESC 202 Practicum in Sport Management/Recreation ..... 1
HESC 207 introduction to Recreation and
Sport Management ..... 3

| HESC 26 | Programming and Leadership ....................................... 3 |
| :---: | :---: |
| HESC 302 | Practicum in Sport Management/Recreation II |
| HESC 341 | Principles of Outdoor Recreation ......................................... 3 |
| Plus, 18 credits reflecting a sub-discipline in recreation/leisure chosen under the direction of the faculty advisor and submitted for approval no later than the beginning of the second semester of the junior year |  |
| ELECTIVES |  |
| After required courses are completed, sufficient elective credits must be taken to meet the minimum credits required for the degree. |  |
|  |  |

CREDITS TO TOTAL A MINIMUM OF 120

## DEGREE: BACHELOR OF SCIENCE <br> MAJOR: HEALTH BEHAVIOR MANAGEMENT CONCENTRATION: SPORT MANAGEMENT

CURRICULUM
CREDITS

See University and Department requirements (page 176) for additional degree requirements.

## BREADTH REQUIREMENTS

Group A-Communication/Writing Skills ......................................... 6
Must include courses from at least two departments
Group B-Humanifies/Fine Arts .................................................. 6
Group C-History/Social Sciences .................................................... 6
Must include PSYC and SOCl courses.
Group D-Natural and Biological Sciences/Mathematics.............. 10
Must include an approved 3-credit MATH course at the 100 -level or higher and STAT 200
Additional credits from Groups A-D
MAJOR REQUIREMENTS (minimum grade c- in each)
ACCT 200 Survey of Accounting ........................................................... 4
BUAD 100 Introduction to Business ........................................................... 3
HESC 155 Personal Health Management:
HESC 200 Issues in Health Behavior Management
HESC 210 Safety, First Aid and Emergency Care ................................... 3
HESC 332 Healh Behavior Theory and Assessment .................................... 3
HESC 335 Health and Aging ........................................................... 3
HESC 342 Survey in Adaptive Physical Education ……................................ 3
HESC 354 Seminar in Fitness Management ..........................................

HESC 422 Organization and Administration $\begin{aligned} & \text { of Leisure Services }\end{aligned}$

CONCENTRATION REQUIREMENTS (minimum grade c - in each)
ECON 100 Economic Issues and Policies .............................................. 3

HESC 202 Practicum in Sport Management/Recreation ! ......................
HESC 207 Introduction to Recreation and
HESC 261 Programming and Leadership
HESC 302 Practicum in Sport Management/Recreation II .......................
HESC 303 Practicum in Sport Management Ill ............................................... 1


HESC 437 Sport Marketing
HESC 340 Management of Sport Information
HESC 344 Financial Aspects of Sport Management

## ELECTIVES

After required courses are completed, sufficient elective credits must be taken to meet the minimum credits required for the degree.

CREDITS TO TOTAL A MINIMUM OF

## REQUIREMENTS FOR A MINOR IN COACHING SCIENCE

This minor is designed to help students develop an understanding of the instructional, psychological, and management aspects of coaching, as well as a personal philosophy of coaching. Successful completion of the minor prepares students to take the American Sport Education Program (ASEP) Coaching Certification examination.

Students applying for the minor are expected to have had previous athletic experience and must have completed at least one semester of full time study with a minimum GPA of 2.25 . The application process involves an interview with the faculty director of the minor A grade of C - or better in required courses is needed for successful completion of the minor.

CURRICULUM CREDITS
HESC 210 Safety, First Aid, and Emergency Care .............................................. 3
HESC 220 Anatomy and Physiology. ... ...
3
HESC 320 Principles of Strength and Conditioning .................................... 3
HESC 390 Principles of Coaching ......................................................... 3
HESC 440 Strategies for Athletic Peak Performance ........................................... 3
HESC 460 Coaching/Performance Practicum ............................................. 3

## REQUIREMENTS FOR A MINOR IN

## STRENGTH AND CONDITIONING

This minor is designed to provide students with in depth understanding of the theory and practical considerations associated with physical training to enhance strength and conditioning. Students successfully completing the minor will be prepared to take the Strength and Conditioning Specialist Certification examination offered by the National Strength and Conditioning Association.

Students applying for the minor must have completed at least one semester of full time study with a minimum GPA of 2.25. Enrollment in the minor for at least four semesters is necessary due to sequencing of courses. A grade of C - or better in required courses is needed for successful completion of the minor.

## CURRICULUM

## Prerequisite Courses:

The following courses are identified as prerequisites for selected courses in the minor. It is not necessary to take all of the prerequisite courses prior to enrolling in the first course in the minor. See course descriptions for the required courses to identify individual course prerequisites.
HESC 220 Anatomy and Physiology .................................................. 3
HESC 350 Basic Concepts in Kinesiology ........................................................... 3


HESC 431 Physiology of Activity Laboratory ............................. 1
NTDT 200 Nutrition Concepts ........................................................................... 3

## Required Courses:

HESC 320 Principles of Strength/Conditioning ............................... 3
HESC 432 Basic Exercise Prescription ...... ................................................. 3
HESC 440 Strategies for Athletic Peak Performance . ............................. 3
HESC 447 Advanced Topics in Strength and Conditioning ....................................
HESC 462 Practicum in Strength and Conditioning .............................. 3
NTDT 310 Nutrition and Activity ....................................................................... 3

## MEDICAL TECHNOLOGY

The Department of Medical Technology offers a major in Medical Technology, as well as an Honors Degree and Honors courses. Medical Technology (Biomedical Sciences) is clinical laboratory science related to the prevention, diagnosis and therapy of disease. The Medical Technology major is accredited by the National Accrediting Agency for Clinical Laboratory Sciences ( 8410 West Bryn Mawr Ave., Suite 670, Chicago, IL 60631-3415; telephone 773-714-8880). The four-year B.S. degree curriculum offers an undergraduate professional education designed to prepare students for career entry positions in hospital clinical laboratories and industry as well as graduate study in medical technology and related areas.

During the first two years at the University, students interested in medical technology should take courses in the basic sciences and liberal arts, including prerequisite courses in biology and chemistry The professional and clinical courses in the third and fourth years include a final period of supervised clinical education in the Christiana Care Health Services and other affiliated institutions. One required Winter Session is included in the B.S. curriculum.

During the clinical rotation period (fall of junior year and winter and spring terms of the senior year), students should plan for the possibility of 1) added expense for transportation and uniforms and 2) added expense for living off-campus at the clinical site for at least a five-week rotation during the senior year when the commuting distance is excessive.

For exceptionally talented and highly motivated students, several special academic opportunities are available. Students may pursue the Honors Degree with Distinction, the Honors Degree, the Degree with Distinction, or undergraduate research through independent study.

Freshmen or transfer students may be admitted to the University with a declared interest in medical technology. Students will be evaluated for admission to the Medical Technology major after completion of the prerequisite courses. Priority will be given to full-time University sophomores.

Class size is limited to 26 medical technology majors, and any interested student should talk with the Department Chair as early as possible.

Eligibility for admission to the junior year of the Medical Technology major will be based on the following criteria:

1. Minimal GPA of 2.0 in first four semesters of coursework.
2. Minimal gradepoint index of 2.0 computed from specified courses in biological sciences and chemistry, including laboratories: BISC 207, 208, 276, 300, and CHEM 103, 104, 213, and 214-216.
3. Completion of at least 60 credits, including the courses listed above.
4. Within the pool of eligible students, admission to the major courses will be determined by academic achievement All applicants will be evaluated by the Medical Technology Undergraduate Program Committee.
The following course sequence is recommended. These courses may be subject to change, so it is essential that students meet regularly with their faculty advisors. Courses taken pass/fail cannot be used to complete major requirements. Pass/fail courses are for free electives only. A minimal grade of C - is required in each MEDT course in the Medical Technology major. In order to meet degree requirements, medical technology majors must have a minimum cumulative GPA of 2.0 to progress in the medical technology sequence. A student who earns a grade lower than C - in a medical technology course must repeat the course and achieve a grade of at least C - before enrolling in any medical technology course which has the prior course as a prerequisite. Students are not permitted to repeat any medical technology course more than once. Further, students who earn a grade lower than $\mathbf{C}$ - in more than one medical technology course will not be permitted to continue in the major

Telephone: (302) 831-2849
www.udel.edu/medtech

## DEGREE: BACHELOR OF SCIENCE MAJOR: MEDICAL TECHNOLOGY

CURRICULUM CREDITS

## UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing (minimum grade C-1
Three credits in an approved course or courses stressing ...................
multicultural, ethnic, and/or gender-related content (See p 57).

## MAJOR REQUIREMENTS

Writing: (minimum grade $C$-)
A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 45 credit hours Appropriate writing courses are normally designated in the semester's Registration Booklet. (See list of courses approved for second writing requirement, page 83.)

## One of the following.

MATH 114 College Mathematics and Statistics
(For students who do not intend to continue the study of mathematics)
MATH 115 Pre-Calculus
MATH 117 PreCalculus for Scientists and Engineers
(for students who intend to continue the study of mathematics)
MATH 221 Calculus 1
MATH 241 Analytic Geomerry and Calculus A
Successful performance on the college proficiency exam ( 0 credits awarded)

## Breadth Requirements

(follow College of Arts and Science standards, See page 85.)
Group A: Understanding and appreciation of the creative arts and humanities6
Group B: The study of culture and institutions over time ..... 6
Group C: Empirically based study of human beings and their environment ..... 6
Three credit Pathways Course may be substituted for one Breadth Requirement.(minimum grade of C - required in all MEDT courses)
MEDT 100 Introduction to Medical Technology ..... 1
MEDT 210 Information Technologies and
Communication Skills ..... 2
MEDT 370 Phlebotomy Practicum ..... $\begin{array}{r}1 \\ 2 \\ \hline\end{array}$
MEDT 375 Clinical Laboratory Principles and Statistics .....
MEDT 390 Introduction to Molecular Diagnostics
MEDT 391 Introduction to Molecular Diagnostics Laboratory2
.1
MEDT 400 Urinalysis and Body Fluids ..... 2
MEDT 401 Clinical Physiological Chemistry I ..... 3
MEDT 411 Clinical Physiological Chemistry I LaboratoryMEDT 404 Hematology I.2
MEDT 414 Hematology I Laboratory$\begin{array}{r}.2 \\ . . \\ \hline\end{array}$
MEDT 406 Medical Microbiology ..... 3
MEDT 416. Medical Microbiology Laboratory
MEDT 403 Clinical Physiological Chemistry II2
4
MEDT 413 Clinical Physiological Chemistry II Laboratory ..... 2
MEDT 418 Medical Technology Senior Seminar ..... 0
2
MEDT 405 Hematology il
MEDT 415 Hematology II Laboratory ..... 2
MEDT 409 Immunohematology 1
MEDT 419 Immunohematology Laboratory ..... 1MEDT 420 immunohematology II
MEDT 421 Immunohematology II Laboratory 1
MEDT 430 Diagnostic Bacteriology and Medical Mycology ..... 2
MEDT 431 Diagnostic Bacteriology and Medical Mycology Laboratory ..... 2
MEDT 461 Laboratory Practice and Leadership ..... 1
MEDT 471 Laboratory Practice and Leadershíp II ..... 1
MEDT 473 Clinical Urinalysis and Serology Practicum .....  3
MEDT 475 Clinical Hematology Practicum
Clinical Microbiology Practicum3
3
3
MEDT 479 Clinical Immunohematology Practicum ..... 3
BISC 207/208 Introductory Biology I and II ..... 8
BISC 276 Human Physiology ..... 4
4
BISC 300 Introduction to Microbiology ..... 8
CHEM 103/104 General Chemistry ..... CHE
CHEM
or
CHEM 321/322 Organic Chemistry8
CREDITS TO TOTAL A MINIMUM OF ..... 123
HONORS BACHELOR OF SCIENCE: MEDICAL TECHNOLOGY
The recipient must complete:

1 All requirements for the Bachelor of Science degree in Medical Technology
2. All the University's generic requirements for the Honors Baccalaureate degree (see page 43)

## NURSING

The Department of Nursing offers a four-year baccalaureate degree program in nursing and an accelerated nursing degree program for those who already hold a baccalaureate degree in another field. There is also a baccalaureate degree program (BRN) for registered nurses with associate degrees or diplomas. Returning nurses may complete some course work at home or in the worksite in a distance-learning format. In addition, the Department offers a master's progtam in nursing, with concentrations in Family Nurse Practitioner, Adult Nurse Practitioner, Health Services Administration, Clinical Nurse Specialist, and a combined Clinical Nurse Specialist/Specialty Nurse Practitioner option.

## FOUR YEAR BACHELOR OF SCIENCE IN NURSING PROGRAM

The four-year Bachelor of Science in Nursing program is designed to develop the knowledge, understanding and skills essential for the practice of professional nursing and to provide the basis for graduate education. The program is fully accredited by the National League for Nursing Accrediting Commission and has preliminary accreditation from the Commission for Collegiate Nursing Education. Information on program requirements is available from the League at 350 Hudson St., New York, NY 10014, telephone 1-800-669-1656. The first year of the program includes foundation courses in the natural, social, and behavioral sciences, and liberal arts. The second, third and fourth years of study include clinical and nonclinical nursing courses as well as elective courses. The Department of Nursing uses many healthcare agencies in Wilmington, Newark, and nearby areas for clinical teaching.

During clinical rotations, students are exposed to many different experiences in a variety of healthcare settings. These include the major hospitals in New Castle County as well as regional community hospitals, a variety of extended care facilities, independent living facilities, and various community-based providers who offer a range of services across the life span. Students graduate as nurse generalists with experiences in pediatric, maternity, psychiatric, medical-surgical, and community health nursing.

Nursing students are encouraged to participate in the Department chapter of the National Student Nurses' Association and the Black Nurses' Organization. Students who have earned recognition for superior academic achievement may be invited for membership in Beta Xi Chapter of Sigma Theta Tau, the International Honor Society of Nursing. Qualified students may participate in the University's Honors Program, undergraduate research, and the Degree with Distinction program. Research opportunities are available to all undergraduates.

## HONORS DEGREE IN THE DEPARTMENT OF NURSING

Students can earn an Honors Bachelor of Science Degree in Nursing by completing the following requirements:

1. All requirements for the Bachelor of Science in Nursing Degree
2. All the University's generic requirements for the Honors Baccalaureate Degree (see page 43)
3. Courses at the 600 level or higher may be taken for honors credits (with permission from the course instructor and academic advisor).

Telephone: (302) 831-2193
www udel edu/nursing
e-mail: ud-nursing@udel.edu

## ACCELERATED NURSING DEGREE PROGRAM

The Accelerated Degree Program is a course of study leading to a Bachelor of Science in Nursing and is designed for individuals who have a previously earned degree in another field and would like to
pursue a career in nursing. Students in this program must complete all of the non-nursing requirements by transfer credit from their first degree, completion of coursework at the University of Delaware or by transfer of pre-approved equivalent courses from other accredited institutions. The program begins in the fall with one course which is offered in a video delivery format. Students will be required to come to campus for course examinations. If a student is unable to relocate until beginning full time study in January, special testing arrangements may be made on an individual basis. In January, students begin their full time studies with a five week winter session. Coursework continues in the spring semester, followed by a ten week summer session, the fall semester, and concludes with the following January winter session. All non-núrsing coursework must be completed prior to the first winter session.

## POLICIES

In order to meet degree requirements, nursing majors must have a minimum cumulative GPA of 2.0 to progress in the nursing sequence. A student who earns a grade lower than C - in a nursing course must repeat the course and achieve a grade of at least Cbefore enrolling in a more advanced nursing course.

Students are not permitted to repeat any nursing course more than once. Further, students who earn a grade lower than C - in more than one nursing course will not be permitted to continue in the program. Students should meet regularly with their faculty advisor to ensure that all requirements are being met.

Students are expected to provide their own transportation to all required clinical experiences.

## LICENSURE

Craduates are eligible for registered nurse licensure in any state upon satisfactory completion of the National Council Licensure Examination for Registered Nurses (N-CLEX-RN) If the examination is passed and licensure granted in one state, application may be made to other states for licensure by endorsement.

Students taking courses in an accelerated mode are sometimes out of sequence with on-campus course offerings. In these instances, lecture will be provided via videotape or web, augmented by small group discussion sessions. Each student will receive a complete set of video tapes or CD-Rom for specified courses permitting greater flexibility in scheduling study time. Six courses incorporate video or web delivery plus discussion sessions
Eligibility for this course of study includes the following:

1. An earned baccalaureate degree
2. GPA of 3.0 or greater
3. Completion of all non-nursing courses prior to first winter session.

For more information or to make an appointment to discuss the accelerated program, please contact the Department at 302-831-1253 A sample curriculum plan may be viewed at the Accelerated Degree Program website (www.udel edu/nursing/accelerated html ). Students who may need financial assistance in pursuing a second degree should contact the Financial Aid Office at 302-831-1534 Reference books on private financial aid sources are available in libraries or local academic institutions in your community.

## DEGREE: BACHELOR OF SCIENCE IN NURSING <br> (Four-Year Program) <br> MAJOR: NURSING



## UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing (minimum grade C-)
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content. (See p. 57) This course also can be used in the breadth requirements.

## BREADTH REQUIREMENTS

(see College of Arts and Science standards, p 85)
Group A: Understanding and appreciation of the creative arts and humanities . 3 (Foreign language requirement may be substituted for a Group $A$ requirement) Group B: The study of culture and institutions over time3
Group C: Empirically based study of human beings and their environment ..... 3

second Writing Course
(see list of courses approved for second writing requirement, p.83) ............ 3

## MAJOR REQUIREMENTS

BISC 207 Introductory Biology ................................................................. 4
BISC 276 Human Physiology (minimum grade C-1 ...................................... 4
BISC 300 Introduction to Microbiology ........................................... 4
CHEM 105 General Chemistry ............................................................. 4
CHEM 106 Elementary Bioorganic Chemistry ................................................ 5
NTDT 200 Nutrition Concepts .....................................................................

HESC 155 Personal Health Management: An Approach for a Lifetime . 3
PSYC 201 General Psychology
Life Span Development - - - -
NURS 100 New Student Connections
NURS 101 Basic Human Anatomy :...................................................... 2
NURS 220 Concepts of Nursing Practice .................................................. 3
NURS 222 Pharmacology.................................................................................

NURS 240 Scientific Basis for Nursing:................................................... 5
NURS 352 Nursing Care of Adults I. ......................................................... 2
NURS 353 Clinical Applications of Adult Nursing Care I............................ 3
NURS 354 Psychosocial Nursing ....................................................................... 2
NURS 355 Clinical Application: Psychosocial Nursing .................................... 3
NURS 356 Children and Families Nursing Care ...................................... 2
NURS 357 Clinical Application: Children and Family Nursing Care ........ 3
NURS 358 Childbearing Family Nursing Care ................................... 2
NURS 359 Clinical Application: Child bearing Family Nursing Care .............. 3

NURS 411 Topics in Health Care Delivery ..................................................... 3
NURS 452 Adult Nursing Care \| ................................................................. 3
NURS 453 Clinical Application of Adult Nursing Care II .......................... 3
NURS 454 Nursing of Populations ......................................................... 2
NURS 455 Clinical Application: Nursing of Populations
NURS 474 Professional Practice in Health Care ......................................... 2
NURS 475 Senior Preceptorship
6

## ELECTIVES

After required courses are completed, sufficient elective credits must be taken to meet the minimum credits required for the degree

CREDITS TO TOTAL A MINIMUM OF 120

Many nursing courses are offered once each academic year. Students must complete selected required lower division courses before enrolling in upper division nursing courses. Nursing courses must be taken in sequence unless otherwise specified.

## DEGREE: BACHELOR OF SCIENCE IN NURSING <br> (Accelerated Degree Program) MAJOR: NURSING

CURRICULUM CREDITS

| SUPPORT COURSES ( 68 credits to be completed through course work or transfer of credit before beginning the first Winter Session) |  |  |
| :---: | :---: | :---: |
| BISC 207 | Introductory Biology 1 |  |
| BISC 208 | Introductory Biology \|| |  |
| BISC 276 | Human Physiology (minimum grade C-) |  |
| BISC 300 | Introduction to Microbiology |  |
| CHEM 105 | General Chemistry |  |
| CHEM 106 | Elementary Bioorganic Chemistry |  |
| ANTH 100 or higher |  |  |
| ENGL 110 | Critical Reading and Writing (minimum grade C - |  |
| ENGL 301 | Problems in Composition |  |
| Literature 200 level or higher |  |  |
| IFST 201 | Life Span Development |  |
| NTDT 200 Nutrition Concepts |  |  |
| PHIL 100 level or higher (except PHIL 205) |  |  |
| 201 | General Psychology |  |
| vel |  |  |
| 200 | tistical Pr |  |



## ELECTIVES

After required courses are completed, sufficient elective credits must be taken to meet the minimum credits required for the degree

CREDITS TO TOTAL A MINIMUM OF

BACCALAUREATE PROGRAM FOR THE REGISTERED NURSE (BRN)
The Department of Nursing offers a separate program to allow registered nurses to earn a Bachelor of Science in Nursing. Licensed registered nurses who are graduates of associate degree or diploma programs may apply for admission to this program. Applicants who show evidence of successful completion of the Registered Nurse licensure exam will be awarded 30 credits for basic nursing knowledge. Before enrollment in any nursing courses, students must meet the following criteria:

- Completion of 36 credits of non-nursing requirements which must include 24 credits in science and up to 6 credits of free electives.
- GPA of 2.5 or higher for non-nursing prerequisite courses
- Validation of basic nursing knowledge
- Validation of clinical competence

All required nursing courses in the BRN major, with the exception of three weekend courses (NURS 343, 441, and 445), are offered in a distance-learning format. Many of the support courses are also available in a distance-learning format.

Telephone: (302) 831-4549
www.udel.edu/DSP

## DEGREE: BACHELOR OF SCIENCE IN NURSING <br> MAJOR: BACCALAUREATE FOR THE REGISTERED NURSE (BRN) <br> CURRICULUM <br> CREDITS

## UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing (minimum grade C-) .................. 3
Three credits in an approved course or courses stressing ............. 3 multicultural, ethnic, and/or gender-related content (see p. 57).

## MAJOR REQUIREMENTS

24 credits, to include a minimum of one course in each of the
following five categories: (1) biology, (2) microbiology, (3) chemistry, (4) anatomy and physiology, and (5) nutrition

STAT 200 Basic Stalistical Practice.
English course (second English composition course) ..... 3
Literature course3
Philosophy course .....
Psychology course
Sociology course ..... 3
Lifespan development course3
Restricted elective chosen from the following ..... 3
Art, Art History, History, Philosophy, Music, Thearre, Comparative Litera-ture, Black American Studies, Economics, Political Science, Women's Stud-ies, Foreign Languages and Literatures, Linguistics, and English.
NURS 312 Pathophysiology ..... 4
NURS 314 Psychopathology3
NURS 340 Current Perspectives in Professional Nursing ..... 2
NURS 342 Nursing Informatics
1
NURS 343 Transition to Baccalaureate Nursing Education2
NURS 344 Wellness/Health Assessment
NURS 405 Introduction to Nursing Research ..... 2NURS 411 Topics in Health Care DeljueryNURS 442 Community Health Nursing
NURS 441 Learning Lab: Healith Assessmen1NURS 443 BRN Role Practicum 3
NURS 445 Nursing Research Applications. ..... 1
NURS 446 Leadership/Organizational Behavior .....  2
ELECTIVES
After required courses are completed, sufficient elective credits must be taken to meet the minimum credits required for the degree.
CREDITS TO TOTAL A MINIMUM OF

## NUTRITION AND DIETETICS

The Department of Nutrition and Dietetics offers undergraduate majors in Applied Nutrition, Dietetics, and Nutritional Sciences, all with Honors Degree options, as well as a minor in Nutrition. The programs integrate chemistry, biology, social science and business courses with the study of nutrition. The baccalaureate programs in Nutrition and Dietetics provide opportunities for careers in business; industry; public, private, or government agencies; and education. In addition to the specialized courses necessary for competence in one's selected professional major, the curricula include courses in the humanities, the sciences, and the social sciences.

The Dietetics major leads to the attainment of certification as Registered Dietitian by the American Dietetic Association (ADA) and is accredited by the Commission on Accreditation for Dietetics Education. Students in this major complete the professional practice requirement after the Bachelor of Science degree by completing an ADA dietetic internship or alternative See the Graduate section of the Catalog for information on the Dietetic Internship Program.

The Applied Nutrition major is designed for the student who can creatively combine the study of nutrition with other academic areas. The curriculum is flexible so that a focus such as Gerontology, Food Service Management, Pediatrics or Fitness may be incorporated. Students who plan on becoming a Registered Dietitian and on conducting counseling and the related activities of a dietitian/nutrition counselor should complete the Dietetics major.

The Nutritional Sciences major meets the needs of students who want to focus strongly on the science aspects of human nutrition. As a premedical program, it prepares students for careers in dentistry, veterinary and human medicine, laboratory research in nutrition, or positions with companies or agencies requiring the extensive use of a strong science and human nutrition background. It provides students with a strong foundation for graduate work in human nutrition and related fields (e.g., physical therapy) and as such may be considered primarily as a preprofessional degree. Students planning on careerrelated employment upon graduation are encouraged to plan their electives in a concentrated area of interest such as journalism, dietetics, food science, child development, chemistry, biological sciences, or other related fields

Each student's academic advisor, a faculty member with exper-
tise in the student's field of interest, will assist in selecting courses and experiences that focus on the student's interests and professional goals. For example, careful selection of liberal arts requirements and elective courses allows students to pursue a minor or an area of interest outside of the college, a double degree, double major, or interdepartmental major: Students are encouraged to meet with their faculty advisors at least once each semester.

Nutrition and Dietetics students are encouraged to enrich their academic program by participating in the college's visiting student programs, study abroad experiences, seminars, and student organizations, such as the Nutrition and Dietetics Club. To enhance prospects for employment and obtaining dietetic internships, students are encouraged to seek experiences outside the classroom. For those planning to pursue a graduate program, research apprenticeships are available. Opportunities exist for students to participate in the American Dietetic Association and the Society of Nutrition Education.

There are several special academic opportunities for exceptionally talented and highly motivated students. Students in each Nutrition and Dietetics major may participate in the University's Honors Program, undergraduate research, and the Degree with Distinction program. Also, the College's Dean's Scholar Program provides qualified students with the opportunity to develop an individualized program focussing on the students' academic interests.

Selection and retention policies for all majors in this department have been established and are available from the department office.

Telephone: (302) 831-8729
http://napa ntdt.udel.edu/index.html

## GENERAL EDUCATION COURSES

The following courses have been approved to fulfill humanities and social science electives for students in majors offered by the Department of Nutrition and Dietetics.

## HUMANITIES

Art, Art History, Communication, Comparative Literature, English, Foreign Language (including: CHIN, FREN, GREK, GRMN, HEBR, ITAL, JAPN, LATN, PORT, RUSS, SPAN), Foreign Languages and Literatures, Jewish Studies, Linguistics, Museum Studies, Music, Philosophy, Theater, Women's Studies (WOMS 203, $205,210,216,222,318,320,326,328,330,353,380,381,382,389$, 465, 480), Science and Culture (CSCC 229, 241, 246, 250, 330, 365, $368,369,444)$.

## SOCIAL SCIENCE

Anthropology (cultural/social, all except ANTH 102, 104, 202), Black American Studies, Business Administration (BUAD 309), Criminal Justice, Economics (including FREC 150), Geography (economic and social, including: GEOG 102, 120, 203, 210, 225 , 226, 227, 236, 240, 310, 325, 328, 330, 340), History, Political Science, Psychology (except PSYC 309 and 314), Sociology, Women's Studies (WOMS 201, 202, 206, 207, 211, 212, 213, 233, 240, 291, $298,299,300,305,323,333,350,363,407,413,415,430,436,460$, 498), Science and Culture (CSCC 233, 311, 355, 382,).

## HONORS DEGREES IN THE DEPARTMENT OF NUTRITION AND DIETETICS

Students can earn an Honors Bachelor of Science Degree in Applied Nutrition, Dietetics, or Nutritional Sciences by completing the following requirements:

1. All requirements for the Bachelor of Science Degree in the respective major
2. All the University's generic requirements for the Honors Baccalaureate Degree (see page 43 of this catalog).

## DEGREE: BACHELOR OF SCIENCE MAJOR: APPLIED NUTRITION

CURRICULUM

CREDITS

## UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing (minimum grade C-) ................ 3
Three credits in an approved course or courses stressing ................3
multicultural, ethnic, and/or gender-related content (see p. 57)

## MAJOR REQUIREMENTS

Humanities electives ............................................................... 6

CHEM 101/102 General Chemistry
or
CHEM 103/104 General Chemistry ......................................... 8
CHEM 213 Elementary Organic Chemistry.............................................. 4
CHEM 214/216 Elementary Biochemistry with Lab .......................... 4
BISC 104 Principles of Biology
or
BISC 207/208 Introductory Biology I and II ....................................4-8
BISC 106 Elementary Human Physiology … .... ........................................... 3
BISC 276 Human Physiology ......................................................... . 4
Students desiring to fulfill a Biology minor should take BISC 207, 208 and 276.
ECON 100 Economic Issues and Policies or
ECON 151 Introduction to Microeconomics:
Prices and Markets 3
PSYC 201 General Psychology ...............................................
Sociology course ...................................................................................... 3
BUAD 309 Management and Organizational Behavior ................ 3
FOSC 305 Food Science (minimum grade of C-) $\ldots \ldots \ldots . . . . . . . . . . . . . . . . . . . . . . . . . .$.
MATH 114 Elementary Mathematics and Statistics ..... . ............................... 3
or
Successful performance on the Proficiency Test in Mathematics administered by Department of Mathematical Sciences
A minimum grade of $C$ - must be achieved for credits to count toward the fulfillment of 25 credits in NTDT; a minimum grade of C - in 200 -level courses must be achieved to proceed to upper-level courses; only 300 -level courses and a maximum of four credits of Special Problems/Independent Study (NTDT $\times 66$ ) may count toward the fulfillment of this requirement.
NTDT 103 Introduction to Nutrition Professions ......................................... 1

NTDT 201 Food Concepts

NTDT 401 Micronutrients ................................................................... 3
NTDT 445 Teaching Methods: Nutrition and Food ... ......................................... 3
NTDT courses ( 300 -level or higher)
NTDT Restricted Elective (minimum grade of C- must be achieved) .................. 3
One of the following:
NTDT 305 Nutrition in the LifeSpan
NTDT 350 Nutrition and Older Adults
NTDT 420 Maternal and Infant Nutrition

## ELECTIVES

After required courses are completed, sufficient elective credits must be taken to meet the minimum credits required for the degree
May include Military Science, Music, or Physical Education. 'Only two credits of activity-type Physical Education and four credits of Music and four credits of 100 and 200-level courses in Military Science/Air Force may be counted toward the degree)

## DEGREE: BACHELOR OF SCIENCE MAJOR: DIETETICS

## CURRICULUM

## UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing (minimum grade C-)
Three credits in an approved course or courses stressing ................................. 3
multicultural, ethnic, and/or gender-related content (see p. 57)
MAJOR REQUIREMENTS
Humanities electives .................
CHEM 101/102 General Chemistry
CHE
or
CHEM 103/104 General Chemistry
............................... 8
CHEM 214/216 Elementary Biochemistry with Lab
BISC 207/208 Introductory Biology I and II ...... .................................. 8
BISC 276 Human Physiology ............................................................. 4

ECON 100 Economic Issues and Policies
or
ECON 151 Introduction to Microeconomics: Prices and Markets ................... 3
PSYC 201 General Psychology .......................................................... 3
One of the following courses ............................................................... 3
SOCl 201 Introduction to Society
SOCI 203 The Individual and Society
SOCl 204 Urban Communities
SOCI 209 Social Problems
SOCI 210 Population Problems
SOCI 242 Society and the Health Professions
SOCI 243 Society, Politics and Health Care
SOCI 302 Social Deviance
PSYC. 303 Introduction to Social Psychology
SOCl 310 Sociology of Healthcare
BUAD 309 Management and Organizational Behavior ............................ 3
FOSC 305 Food Science (minimum grade C.) ............................................ 3
Statistics course selected from: STAT 200, PSYC 309, FREC. 408 ..................... 3
MATH 114 Elementary Mathematics and Statistics
or
Successful performance on the Proficiency Test in Mathematics administered by Department of Mathematical Sciences
A minimum grade of C- must be achieved for credits to count toward the fulfillment of 41 credits in NTDT; a minimum grade of C - in 200 -level courses must be achieved to proceed to upper-level courses; only 300 -level courses and a maximum of four credits of Special Problems/Independent Study (NTDT x66) may count toward the fulfillment of this requirement.
NTDT 103 introduction to Nutrition Professions ............................................ 1
NTDT 200 Nutrition Concepts .........................................................................

NTDT 321 Quantity Food Production and Service.......................................... 3
NTDT 322 Management of Food and Nutrition Services ..........................................
NTDT 326 Onsite Food Products
NTDT 330 Nutritional Counseling
NTDT 400 Macronutrients
NTDT 401 Micronutrients
NTDT 403 Dietetics Seminar
NTDT 421 Nutrition Assessment Methods
NTDT 445 Teaching Methods: Nutrition and Foods
NTDT 450 Medical Nutrition Therapy 1
NTDT 451 Medical Nutrition Therapy 11
NTDT 460 Community Nutrition

One of the following:
NTDT 305 Nutrition in the LifeSpan
NTDT 350 Nutrition and Older Adults
NTDT 420 Maternal and Infant Nutrition

## ELECTIVES

After required courses are completed, sufficient elective credits must be taken to meet the minimum credits required for the degree
May include Military Science, Music, or Physical Education |Only two credits of activity-type Physical Education and four credits of Music and four credits of 100 and 200-level courses in Military Science/Air Force may be counted toward the degree)
DEGREE: BACHELOR OF SCIENCE MAJOR: NUTRITIONAL SCIENCES
CURRICULUM
CREDITS
UNIVERSITY REQUIREMENTS
ENGL 110 Critical Reading and Writing (minimum grade C-1 ............... 3
Three credits in an approved course or courses stressing ............................ 3
mulficultural, ethnic, and/or gender-related content (see p 57)

## MAJOR REQUIREMENTS

Humanities electives ............................................................................. 6
CHEM 103/104 General Chemistry ........................................... 8
CHEM 214/216 Elementary Biochemistry with Lab ................................ A
CHEM 220/221 Quantative Analysis I with Lab ... ...... ........ ............. 4
CHEM 321/322 Organic Chemistry … .................................. 8
BISC 207/208 introductory Biology I and II ................................. 8
BISC 276 Human Physiology ........................................................ 4
BISC 300 Introduction to Microbiology ............................................. 4
PHYS 201 Introductory Physics I...................
ECON 100 Economic Issues and Policies
or
ECON 151 Introduction to Microeconomics: Prices and Markets ............ . 3
Social Science electives ..................................................................... 9
FOSC 305 Food Science (minimum grade C.) ..............................................
FREC 408 Research Methods......................................................... 3
MATH 221/222 ................................................................................. I and II
or
MATH 241/242 Analytic Geometry and Calculus A and B.......................6-8
A minimum grade of $C$ - must be achieved for credits to count toward the fulfillment of 30 credits in NTDT; a minimum grade of C - in 200 -level courses must be achieved to proceed to upper-level courses; only 300 -level courses and a maximum of four credits of Special Problems/Independent Study (NTDT $\times 66$ ) may
count toward the fulfillment of this requirement
NTDT 200 Nutrition Concepts ...................................................................
NTDT 201 Food Concepts ................................................................. 3
NTDT 400 Macronutrients ............................................................. 3
NTDT 401 Micronutrients ............................................................. 3
NTDT 421 Nutrition Assessment Methods ... .............................................. 3
NTDT 450 Medica! Nutrition Therapy I ............................................... 3
NTDT 451 Medical Nutrition Therapy 11 ............................................... 3
NTDT courses (300-level or higher) ....................................................... 6
NTDT course

## ELECTIVES

After required courses are completed, sufficient elective credits must be taken to meet the minimum credits required for the degree.
May include Military Science, Music, or Physical Education. (Only two credits of activity-type Physical Education and four credits of Music and four credits of 100 - and 200 -level courses in Military Science/Air Force may be counted toward the degree.)

CREDITS TO TOTAL A MINIMUM OF

## MINOR IN NUTRITION

A minor in nutrition requires NTDT 200, NTDT 400, NTDT 401 plus 6 credits in Nutrition and Dietetics at the 300 -level or higher. A 2.0 GPA is required for admission; a minimum grade of C - is required in all courses in the minor Note that CHEM 214 and CHEM 216 are necessary prerequisites for NTDT 400 and NTDT 401.

