

COLLEGE OF HEALTH AND NURSING SCIENCES

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

- Medical Technology
- Nursing
- Nutrition and Dietetics

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.

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-) Multicultural course:

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 (FLLT 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 (LING)

Group B —Humanities and Fine Arts

Can choose selected courses from the following departments: Art (ART), Art Histo-(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 (PHIL), 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 (CRJU), 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 (GEOD), 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

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

BREADTH REQUIREMENTS

Group A—Communication/Writing Skills 6 Must include courses from two different departments
Group B —Humanities/Fine Arts
Group C—History/Social Sciences
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)

MAJOKKE	QUIREMENTS (MINIMUM GRADE C- IN EACH)
NTDT 200 PSYC 201	Nutrition Concepts 3
BISC 106	General Psychology
or	Elementary Floritan Physiology
BISC 276	Human Physiology
STAT 200	Basic Statistical Practice
CSCC 241	
HESC 210	Safety First Aid and Emergency Care
HESC 214	Wellness: A Way of Life
HESC 220	Anatomy and Physiology 3
HESC 257	Athletic Training Practicum I
HESC 258	Advanced Taping and Bracing Methods 1
HESC 305	Fundamentals of Athletic Training
HESC 320 HESC 350	Principles of Strength/Conditioning.
HESC 357	Athletic Training Practicum II
HESC 358	Ethical Issues in Health Care 3 Safety, First Aid and Emergency Care 3 Wellness: A Way of Life 3 Anatomy and Physiology 3 Athletic Training Practicum I 3 Advanced Taping and Bracing Methods 1 Fundamentals of Athletic Training 3 Principles of Strength/Conditioning 3 Basic Concepts in Kinesiology 3 Athletic Training Practicum II 3 Athletic Training Practicum II 3 Sports Medicine Pharmacology 3 Sports Medicine Pharmacology 3 Research Methods 3
HESC 395	Sports Medicine Pharmacology 3
HESC 400	Research Methods
HESC 405	Rehabilitation of Athletic Injuries
HESC 407	Prevention/Recognition/Athletic Injuries 3 Therapeutic Modalities 4
HESC 409	Therapeutic Modalities 4
HESC 420 HESC 426	Functional Human Anatomy 4
HESC 420	Biomechanics 4
HESC 431	Physiology of Activity I ab
HESC 440	Physiology of Activity Lab 1 Strategies for Athletic Peak Performance 3
HESC 448	Organization & Administration / Athletic Irgining 3
HESC 449	Advanced Topics in Sports Medicine
HESC 457	Athletic Training Practicum IV
HESC 480	Advanced Topics in Sports Medicine 3 Athletic Training Practicum IV 3 Upper Extremity and Spine Evaluation 3
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 OF120

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	MATH3
HESC 2203	HESC 214
General Studies	HESC 305 (Spring only)
General Studies3	General Studies (Multicultural)3
15	15

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:

- 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;
- 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;
- the ability to record the physical examination results and a treatment plan clearly and accurately;
- the capacity to maintain composure and continue to function well during periods of high stress;
- 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 students 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 X 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 Nursing 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.)
- Successful completion (minimum grade C-) of the following courses: HESC 210, HESC 214, HESC 220, and a BISC course with a lab.
- 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.
 - Exercise Physiology: Students must also have successfully completed (minimum grade of C-) BISC 208.
 - Figure Skating Science: Each student must meet with the Director of the Figure Skating Science Concentration to determine eligibility.

DEGREE: BACHELOR OF SCIENCE MAJOR: EXERCISE SCIENCE CONCENTRATION: BIOMECHANICS

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

BREADTH REQUIREMENTS

BREADTH	REQUIREMENTS	
	Communication/Writing Skills courses from two different departments.	6
Group B—H	lumanities/Fine Arts	3
	History/Social Sciences PSYC 201 and either PSYC 325 or PSYC 334	6
	Natural and Biological Sciences/Mathematics BISC 207, BISC 208, CHEM 103, CHEM 104, NTDT 200	.23
Additional	credits from Group A-D	9
MAJOR RE	EQUIREMENTS (minimum grade C- in each)	
HESC 210 HESC 214 HESC 220 HESC 350 HESC 426 HESC 430 HESC 431	Safety, First Aid, & Emergency Care Wellness: A Way of Life Anatomy and Physiology Basic Concepts in Kinesiology Biomechanics I Physiology of Activity . Physiology of Activity Lab	3 3 4
CONCENT	RATION REQUIREMENTS (minimum grade C- in each)	
BISC 276 or	Human Physiology	
BISC 306 CISC 105	General Physiology General Computer Science	4
	·	

HESC 400 HESC 427 MATH 242 MATH 349 MEEG 112 MEEG 211 PHYS 207 PHYS 208 STAT 200 ELECTIVE After required	d courses are completed, sufficient elective credits must be taken to
	mum credits required for the degree. TOTAL A MINIMUM OF120
CREDITS TO	TOTAL A MINIMUM OF120
MAJOR: E	SACHELOR OF SCIENCE XERCISE SCIENCE RATION: EXERCISE PHYSIOLOGY
CURRICULUA	
See Universidegree requ	sity and Department requirements (page 176) for additional
-	REQUIREMENTS
	Communication/Writing Skills
Must include	courses from two different departments.
•	lumanities/Fine Arts
Group C-l	History/Social Sciences 6
	PSYC 201 and either PSYC 325 or PSYC 334. Natural and Biological Sciences/Mathematics
Must include	MATH 221, BISC 207, NTDT 200, and CHEM 103.
Additional	credits from Group A-D 9
MAJOR RI	EQUIREMENTS (minimum grade c- in each)
HESC 210 HESC 214 HESC 220 HESC 350 HESC 426 HESC 430 HESC 431	Safety, First Aid, & Emergency Care 3 Wellness: A Way of Life 3 Anatomy and Physiology 3 Basic Concepts in Kinesiology 3 Biomechanics I 4 Physiology of Activity 3 Physiology of Activity Lab 1
	RATION REQUIREMENTS (minimum grade c- in each)
BISC 208 BISC 276 or	Introductory Biology II4 Human Physiology
BISC 306 CHEM 104 HESC 305 HESC 353 HESC 400 HESC 432	General Physiology 4 General Chemistry 4 Fundamentals of Athletic Training 3 Seminar in Exercise Physiology 1 Research Methods 3 Basic Exercise Prescription
or HESC 434 PHYS 201 PHYS 202 STAT 200	Exercise Test Technology 3 Introductory Physics I 4 Introductory Physics II 4 Basic Statistical Practice 3
ELECTIVE	
	d courses are completed, sufficient elective credits must be taken to imum credits required for the degree.
	TOTAL A MINIMUM OF120
MAJOR: E	BACHELOR OF SCIENCE EXERCISE SCIENCE PRATION: FIGURE SKATING SCIENCE
CURRICULUA	
	ty and Department requirements (page 176) for additional degree
	REQUIREMENTS
	Communication/Writing Skills 6 courses from two different departments

•	Humanities/Fine Arts 3
Group C-	History/Social Sciences PSYC 201 and one course from another department.
Group D— Must include course with I	Natural and Biological Sciences/Mathematics
Additional	credits from Groups A-D
MAJOR R	EQUIREMENTS (minimum grade C- in each)
HESC 210 HESC 214 HESC 220 HESC 350 HESC 426 HESC 430 HESC 431	Safety, First Aid, and Emergency Care
CONCENT	TRATION REQUIREMENTS (minimum grade C- in each)
HESC 250 HESC 261 HESC 300 HESC 305 HESC 320 HESC 324 HESC 347 HESC 355 HESC 356 HESC 440 HESC 455 HESC 456 NTDT 310	Motor Development 3 Leisure Service Programming. 3 Issues in Physical Activity and Sports 3 Fundamentals of Athletic Training 3 Frinciples of Strength and Conditioning 3 Measurement and Evaluation 3 Legal Aspects of Sport Management 3 Figure Skating Practicum I 3 Figure Skating Practicum II 3 Strategies for Athletic Peak Performance 3 Figure Skating Practicum III 3 Figure Skating Practicum IV 3 Nutrition and Activity 3
After require meet the min	ES d courses are completed, sufficient elective credits must be taken to imum credits required for the degree.

HEALTH AND PHYSICAL EDUCATION ADMISSION REQUIREMENTS AND APPLICATION PROCEDURE

Incoming 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:

CREDITS TO TOTAL A MINIMUM OF120

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

PSYC 2013	ENGL 1103
HESC 2762	MATH course3
HESC 1393	HESC 1411
HESC 1431	HESC 1403
HESC 2143	HESC 2203
*BISC w/lab4	*EDUC 4193
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 EDUCATION

CURRICULUM CREDITS

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

BREADTH REQUIREMENTS

Group A-	Communication/Writing Skills	3
	Humanities/Fine Arts	
	History/Social Sciences	
	Natural and Biological Sciences/Mathematics	
	an approved 3-credit MATH course at the 100-level or high with lab, and NTDT 200.	er, and c
Additional	credits from Groups A-D	3
MAJOR R	EQUIREMENTS (MINIMUM GRADE C- IN EACH)
EDUC 400	Student Teaching	
EDUC 413	Educational Psychology - Social Aspects	
EDUC 414	Educational Psychology – Cognitive Aspects	3
EDUC 419	Diversity in the Classroom	
	(fulfills University multicultural requirement)	
EDUC 420	Reading in the Content Area	1
EDUC 430	Classroom Management	1
Students mus least 2.750,	st have a minimum cumulative GPA of 2.500, a GPA in the r and must apply to student teach at least one semester in ad	najor of o
HESC 121	Water Safety Instruction	
or	III IT	1.0
HESC 122 HESC 139	Lifeguard Training Curriculum in Physical Education	1-2
HESC 140	Fundamental Skills Analysis.	3
HESC 141	Adventure Challenge and Outdoor Recreation	i i
HESC 143	Skills Techniques and Knowledge of Stunts	
	Tumbling and Gymnastics	
HESC 210	Tumbling and Gymnastics Safety, First Aid and Emergency Care	
HESC 214	VVeilness: A VVQV of Life	
HESC 220	Anatomy and Physiology	
HESC 230	Group Facilitation Skills in Health and Physical	_
LIEGO O CO	Education Motor Development	3
HESC 250	Motor Development	3
HESC 251	Skills, Techniques and Knowledge	,
HESC 252	of Rhythms and Dance	

Skills, Techniques and Knowledge

of Racquet Sports

HESC 275	Tactical Approach to Teaching Sports	.,3
HESC 276	Personal Computers in Health,	2
	Physical Education and Recreation	
HESC 300	Issues in Physical Activity Studies and Sports	3
HESC 315	Instructional Strategies for Drug Education	3
HESC 319	Health-Related Fitness	
HESC 324	Measurement and Evaluation	
HESC 325	Instructional Strategies for Human Sexuality	3
HESC 330	Teaching Community and Mental Health	. 3
HESC 332	Health Behavior Theory and Assessment	3
HESC 342	Comment of Andreastics Dharatanal	
	Education/Recreation	3
HESC 370	Practicum in Methods of	
	Elementary Physical Education	3
HESC 380	Practicum in Methods of	
	Secondary Physical Education .	3
HESC 414	Methods and Materials in Health Education	3
HESC 426	Biomechanics I	
HESC 430	Physiology of Activity	3
HESC 431	Physiology of Activity Lab	1
HESC 465	Teaching Seminar in Health/Physical Education	3
	have completed HESC 214, HESC 315, and HESC 325 prior to)
enrolling in H	ESC 414.	
dents must ha 430, HESC 4 465 Students	oply for Upper Division Clearance and enroll in methods courses, are completed all HESC and EDUC required courses except HESC 131, HESC 426, EDUC 420, EDUC 430, EDUC 400, and HESC is must have a minimum GPA of 2.750 in the major and 2.500 or completed PRAXIS I with a passing score.	2

HEALTH BEHAVIOR MANAGEMENT ADMISSION REQUIREMENTS AND APPLICATION PROCEDURE

CREDITS TO TOTAL125

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:

- Successful completion (minimum grade of C-) of General Studies PSYC and SOCI courses, HESC 155, HESC 210, ENGL 110 and a MATH course.
- 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.
- 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 MAJOR: HEALTH BEHAVIOR MANAGEMENT CONCENTRATION: FITNESS MANAGEMENT

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

Group A—Communication/Writing Skills Must include courses from at least two departments
Group B—Humanities/Fine Arts
Group C—History/Social Sciences Must include PSYC and SOCI courses
Group D—Natural and Biological Sciences/Mathematics
Must include an approved 3-credit MATH course at the 100-level or higher, BISO with lab, NTDT 200 and STAT 200.
Additional credits from Groups A-D

HESC 255

MAJOR I	REQUIREMENTS (minimum grade c- in each) Records and Accounts 3	HESC 261 HESC 302	Programi Practicum
or ACCT 200		HESC 341 Plus, 18 cred	Principle
BUAD 100	Introduction to Business3	under the dire	ection of tl
HESC 155	for a Lifetime	later than the	
HESC 200		After required	
HESC 210 HESC 332		meet the mini	
HESC 335	Health and Aging 3		
HESC 342	Survey in Adaptive Physical Education3	CREDITS TO	TOTAL
HESC 354 HESC 400			
HESC 422		DEGREE: E	BACHEL
	of Leisure Services	MAJOR: H	
HESC 464	•	CONCENT	RATION
	TRATION REQUIREMENTS (minimum grade c- in each)	CURRICULUA	Λ
HESC 220 HESC 263		See Univers	sity and
HESC 305		degree requ	irements
HESC 320	Strength and Conditioning3	BREADTH	REQUI
HESC 329	Dynamics of Team Problem Solving		
HESC 350	Basic Kinesiology	Group A— Must include	
HESC 430 HESC 431	.,, ., ., ., ., ., ., ., ., ., ., ., .,		
HESC 432		Group B—I	
HESC 445	Concepts of Physical Fitness Testing	Group C-l	
HESC 490	Development of Health Promotion Programs	Must include	
NTDT 310	Nutrition and Activity3	Group D	
ELECTI		Must include STAT 200	an appro
	red courses are completed, sufficient elective credits must be taken to inimum credits required for the degree.	Additional	credits f
		MAJOR RI	
CREDITS	TO TOTAL A MINIMUM OF120	ACCT 200	Survey
		BUAD 100	Introduc
DEGREE	BACHELOR OF SCIENCE	HESC 155	Persona
MAJOR	HEALTH BEHAVIOR MANAGEMENT	LIECC OOO	An App
CONCE	NTRATION: RECREATION AND PARK ADMINISTRATION	HESC 200 HESC 210	Issues in Safety, F
CURRICUL	UM CREDITS	HESC 332	Health B
	ersity and Department requirements (page 176) for additional	HESC 335	Health o
	quirements.	HESC 342	Survey i
	•	HESC 354 HESC 400	Seminar Researci
	TH REQUIREMENTS	HESC 422	Organiz
	-Communication/Writing Skills		of Leisur
	de courses from at least two departments.	HESC 464	Internshi
	Humanities/Fine Arts	CONCENT	
	-History/Social Sciences	ECON 100	Econom
	de PSYC and SOCI courses.	FINC 200 HESC 202	Fundam Practicu
Group D	-Natural and Biological Sciences/Mathematics 10	HESC 202	Introduc
	de an approved 3-credit MATH course at the 100-level or higher and	,,	Sport M
STAT 200		HESC 261	Program
Addition	al credits from Groups A-D	HESC 302 HESC 303	Practicu Practicu
MAJOR			Financio
FREC 201	REQUIREMENTS (minimum grade C- in each)	HESC 344	
or	REQUIREMENTS (minimum grade C- in each) Records and Accounts	HESC 344 HESC 347	Legal A
ACCT 200 BUAD 100	Records and Accounts	HESC 347 HESC 437	Legal A
HESC 155	Records and Accounts 3 Survey of Accounting 4	HESC 347 HESC 437 HESC 340	Legal As Sport M Manage
	Records and Accounts 3	HESC 347 HESC 437	Legal A
=====	Records and Accounts 3 Survey of Accounting 4 Introduction to Business 3 Personal Health Management: An Approach for a Lifetime 3	HESC 347 HESC 437 HESC 340	Legal A Sport M Manage Financia
HESC 200	Records and Accounts 3	HESC 347 HESC 437 HESC 340 HESC 344 ELECTIVI After require	Legal As Sport M Manage Financia ES
HESC 210	Records and Accounts 3	HESC 347 HESC 437 HESC 340 HESC 344 ELECTIV	Legal As Sport M Manage Financia ES
HESC 210 HESC 332 HESC 335	Records and Accounts 3	HESC 347 HESC 437 HESC 340 HESC 344 ELECTIVI After require meet the min	Legal A: Sport M Manage Financio ES d courses simum cree
HESC 210 HESC 332 HESC 342	Records and Accounts 3	HESC 347 HESC 437 HESC 340 HESC 344 ELECTIVI After require	Legal A: Sport M Manage Financio ES d courses simum cree
HESC 332 HESC 333 HESC 342 HESC 354	Records and Accounts 3	HESC 347 HESC 340 HESC 344 ELECTIVI After require meet the min	Legal A Sport M Manage Financia ES d courses imum crea D TOTAL
HESC 210 HESC 332 HESC 342	Records and Accounts 3	HESC 347 HESC 437 HESC 340 HESC 344 ELECTIVI After require meet the min	Legal A Sport M Manage Financia ES d courses imum crea D TOTAL
HESC 210 HESC 332 HESC 342 HESC 354 HESC 400 HESC 422	Records and Accounts 3 Survey of Accounting 4 Introduction to Business 3 Personal Health Management: An Approach for a Lifetime 3 Issues in Health Behavior Management 3 Safety, First Aid and Emergency Care 3 Health Behavior Theory and Assessment 3 Health and Aging 3 Survey in Adaptive Physical Education 3 Seminar in Fitness Management 1 Research Methods 3 Organization and Administration of Leisure Services 3	HESC 347 HESC 340 HESC 344 ELECTIVI After require meet the min	Legal A: Sport M Manage Financio ES d courses simum cree D TOTAL
HESC 210 HESC 332 HESC 342 HESC 354 HESC 400 HESC 422	Records and Accounts 3	HESC 347 HESC 340 HESC 340 HESC 344 ELECTIVI After require meet the min CREDITS TO	Legal A: Sport M Manage Financia ES d courses imum crea D TOTAL MENTS or is desi
HESC 210 HESC 332 HESC 342 HESC 354 HESC 400 HESC 402 HESC 464	Records and Accounts 3	HESC 347 HESC 340 HESC 340 HESC 344 ELECTIVI After require meet the min CREDITS TO	Legal A. Sport M Manage Financia ES d courses immum cree D TOTAL MENTS or is desirational, J
HESC 210 HESC 333 HESC 334 HESC 344 HESC 354 HESC 400 HESC 407 HESC 407 HESC 407 HESC 407	Records and Accounts 3 Survey of Accounting Introduction to Business Personal Health Management: An Approach for a Lifetime Safety, First Aid and Emergency Care Health Behavior Theory and Assessment Health and Aging Survey in Adaptive Physical Education Seminar in Fitness Management Research Methods Organization and Administration of leisure Services Internship NTRATION REQUIREMENTS (minimum grade c- in each) Practicum in Sport Management/Recreation 1	HESC 347 HESC 340 HESC 340 HESC 344 ELECTIVI After require meet the min CREDITS TO REQUIRE! This mino the instructing, as we	Legal A. Sport M Manager Financia ES d courses immum cree D TOTAL MENTS or is desirational, Julia as a Julia sa a Julia s
HESC 210 HESC 332 HESC 342 HESC 354 HESC 400 HESC 402 HESC 464	Records and Accounts 3 Survey of Accounting Introduction to Business Personal Health Management: An Approach for a Lifetime Safety, First Aid and Emergency Care Health Behavior Theory and Assessment Health and Aging Survey in Adaptive Physical Education Seminar in Fitness Management Research Methods Organization and Administration of leisure Services Internship NTRATION REQUIREMENTS (minimum grade c- in each) Practicum in Sport Management/Recreation 1	HESC 347 HESC 340 HESC 340 HESC 344 ELECTIVI After require meet the min CREDITS TO	Legal A. Sport M Manager Financia ES d courses immum cree D TOTAL MENTS or is desiretional, pell as a per the min

HESC 261 HESC 302 HESC 341	Programming and Leadership
under the dire	its reflecting a sub-discipline in recreation/leisure chosen ection of the faculty advisor and submitted for approval no beginning of the second semester of the junior year.
ELECTIVE	S
After required meet the mini	I courses are completed, sufficient elective credits must be taken to mum credits required for the degree.
CREDITS TO	TOTAL A MINIMUM OF120
MAJOR: H	ACHELOR OF SCIENCE JEALTH BEHAVIOR MANAGEMENT RATION: SPORT MANAGEMENT
CURRICULUA	0.55.70
	sity and Department requirements (page 176) for additiona
degree requ	irements.
	REQUIREMENTS
Must include	Communication/Writing Skills
Group B—I	łumanities/Fine Arts
Group C-I	History/Social Sciences 6 PSYC and SOCI courses.
	Natural and Biological Sciences/Mathematics10
Must include STAT 200	an approved 3-credit MATH course at the 100-level or higher and
	credits from Groups A-D
	EQUIREMENTS (minimum grade c- in each)
MAJOR KI ACCT 200	Survey of Accounting 4
BUAD 100	Introduction to Business
HESC 155	Personal Health Management: An Approach for a Lifetime
HESC 200	Issues in Health Behavior Management
HESC 210	Safety, First Aid and Emergency Care
HESC 332 HESC 335	Health Behavior Theory and Assessment 3 Health and Aging
HESC 333	Survey in Adaptive Physical Education
HESC 354	Seminar in Fitness Management
HESC 400	Research Methods3
HESC 422	Organization and Administration of Leisure Services
HESC 464	of Leisure Services Internship
CONCENT	RATION REQUIREMENTS (minimum grade c- in each)
ECON 100	Economic Issues and Policies
FINC 200	Fundamentals of Finance
HESC 202	Practicum in Sport Management/Recreation 1
HESC 207	Introduction to Recreation and
HESC 261	Sport Management 3 Programming and Leadership 3
HESC 302	Practicum in Sport Management/Recreation II
HESC 303	Practicum in Sport Management III
HESC 344	Financial Aspects of Sport Management
HESC 347 HESC 437	Legal Aspects of Sport Management 3 Sport Marketing 3
HESC 340	Sport Marketing
HESC 344	Financial Aspects of Sport Management
ELECTIVI After require	ES d courses are completed, sufficient elective credits must be taken to
meet the min	imum credits required for the degree
meer me min	
	TOTAL A MINIMUM OF120

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	
HESC 220 Anatomy and Physiology.	
HESC 320 Principles of Strength and Conditioning	3
HESC 390 Principles of Coaching	3
HESC 440 Strategies for Athletic Peak Performance	
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 CREDITS

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 HESC 350 HESC 426 HESC 430	Anatomy and Physiology 3 Basic Concepts in Kinesiology 3 Biomechanics I 4 Physiology of Activity 3
HESC 431 NTDT 200	Physiology of Activity Laboratory 1 Nutrition Concepts 3
Required Co	ourses:
HESC 320 HESC 432 HESC 440 HESC 447 HESC 462 NTDT 310	Principles of Strength/Conditioning 3 Basic Exercise Prescription 3 Strategies for Athletic Peak Performance 3 Advanced Topics in Strength and Conditioning 3 Practicum in Strength and Conditioning 3 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 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

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 fol	lowing	4
MATH 114	College Mathematics and Statistics	
	ho do not intend to continue the study of mathematics)	
MATH 115	Pre-Calculus	
MATH 117	Pre-Calculus for Scientists and Engineers	
	ho intend to continue the study of mathematics)	
MATH 221	Calculus I	
MATH 241	Analytic Geometry and Calculus A	
Successful per	formance on the college proficiency exam (0 credits awarded)	
Breadth Red	quirements	
(follow Colleg	e of Arts and Science standards, See page 85.)	
	derstanding and appreciation of the	
creative arts of	and humanities	6
		,
Group B: The	study of culture and institutions over time	0
Group C: Emr	pirically based study of human beings	
and their envi	ronment	6
Three credit P	athways Course may be substituted for one Breadth Requirement.	
Iminimum ara	de of C- required in all MEDT courses)	
MEDT 100	Introduction to Medical Technology	1
MEDT 210	Information Technologies and	•
MEDIZIO	Commission to mit on Chillia	2
MEDT 370	Phlebotomy Practicum. Clinical Laboratory Principles and Statistics. Clinical Immunology and Medical Virology	ī
MEDT 375	Clinical Laboratory Principles and Statistics	2
MEDT 380	Clinical Immunology and Medical Virology	4
MEDT 390	Introduction to Molecular Diagnostics	_
MEDT 391	Introduction to Molecular Diagnostics Laboratory	1
MEDT 400	Introduction to Molecular Diagnostics Laboratory Urinalysis and Body Fluids	2
MEDT 401	Clinical Physiological Chemistry I	3
MEDT 411	Clinical Physiological Chemistry Llaboratory	''
MEDT 404	Hematology I Laboratory	2
MEDT 414	Hematology I Laboratory	.1
MEDT 406	Medical Microbiology Medical Microbiology Laboratory Clinical Physiological Chemistry II Clinical Physiological Chemistry II Laboratory	3
MEDT 416	Medical Microbiology Laboratory	2
MEDT 403	Clinical Physiological Chemistry II	4
MEDT 413	Clinical Physiological Chemistry II Laboratory	2
MEDT 418	Medical Technology Senior Seminar Hematology !!	O.
MEDT 405	Hematology II	2
MEDT 415	Immunohematology Laboratory Immunohematology Laboratory	Z
MEDT 409	Immunohematology	1
MEDT 419	Immunonematology Laboratory	1
MEDT 420	Immunohematology II Immunohematology II Laboratory Diagnostic Bacteriology and Medical Mycology	1
MEDT 421 MEDT 430	Diagnostic Ractoriology and Medical Mycology	2
MEDT 430	Diagnostic Bacteriology and Medical Mycology	
MLDI 431	Medical Mycology Laboratory	2
MEDT 461	Medical Mycology Laboratory Laboratory Practice and Leadership I	ī
MEDT 471	Laboratory Practice and Leadership (.1
MEDT 472	Clinical Uringlysis and Serology Practicum	1
MEDT 473	Clinical Urinalysis and Serology Practicum Clinical Chemistry Practicum	.3
MEDT 475	Clinical Hematology Practicum	.3
MEDT 477	Clinical Microbiology Practicum Clinical Immunohematology Practicum	3
MEDT 479	Clinical Immunohematology Practicum	.3
BISC 207/20	8 Introductory Biology I and II Human Physiology Introduction to Microbiology	8.
BISC 276	Human Physiology	4
BISC 300	Introduction to Microbiology	4
CHEM 103/	104 General Chemistry	8.
CHEM 213	Elementary Organic Chemistry	
and	and the second s	
	216 Elementary Biochemistry with Lab	
or	222 Oi- Chi-t	8.
CHEM 321/3	322 Organic Chemistry	.0
CDEDITS TO	TOTAL A MINIMUM OF	3

HONORS BACHELOR OF SCIENCE: MEDICAL TECHNOLOGY

The recipient must complete:

- 1 All requirements for the Bachelor of Science degree in Medical Technology.
- 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 program 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-nursing 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 C-before 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

Graduates 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 (Four-Year Program) MAJOR: NURSING

CHRRICHHIM

CREDITS

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)

1		
MAJOR REQUIREMENTS		
BISC 207	Introductory Biology	4
BISC 276	Human Physiology (minimum grade C-)	4
BISC 300	Introduction to Microbiology	4
CHEM 105	General Chemistry	4
CHEM 106	Elementary Bioorganic Chemistry	5
NTDT 200	Nutrition Concepts	3
STAT 200	Basic Statistical Practice	3
HESC 155	Personal Health Management: An Approach for a Lifetime	3
PSYC 201	General Psychology	3
IFST 201	Life Span Development	3
NURS 100	New Student Connections]
NURS 101	Basic Human Anatomy	2
NURS 220	Concepts of Nursing Practice	3
NURS 222	Pharmacology	3
NURS 230	Foundations of Nursing	3
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 362	Research Concepts in Health Care	3
NURS 411	Topics in Health Care Delivery	3
NURS 452	Adult Nursing Care II	J
NURS 453	Clinical Application of Adult Nursing Care II	.ડ
NURS 454	Nursing of Populations	. Z
NURS 455	Clinical Application: Nursing of Populations	4
NURS 474	Professional Practice in Health Care	Z
NURS 475	Senior Preceptorship	0

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 OF120

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 (Accelerated Degree Program) MAJOR: NURSING

CURRICULUM

Human Physiology (minimum grade C-)

A Introduction to Microbiology

4 BISC 276 BISC 300 **CHEM 105** General Chemistry Elementary Bioorganic Chemistry CHEM 106 ANTH 100 or higher Critical Reading and Writing (minimum grade C-) ENGL 110 Problems in Composition **ENGL 301** Literature 200 level or higher IFST 201 NTDT 200 Life Span Development PSYC 201 General Psychology SOCI 200 level or higher Basic Statistical Practice STAT 200

	in an approved course or courses stressing multicultural, ethnic er-related content (see p.57)	3
Kestricted Lie	ctives – Humanities ITERATURE, HIST, PHIL, MUSIC, THEA)	2
AKI, AKIT, L	ctives - Social & Behavioral Sciences	
Kesiricted Elec	N, HIST, POSC, PSYC, SOCI, WOMS)	3
(BAMS, ECO	IN, FIIST, FOSC, FSTC, SOCI, YYONG	٥
		0
NURSING C	COURSES (58 credits)	
NURS 205	Social Context of Nursing	3
NURS 212	Pathophysiolocal Concepts	3
NURS 215	Basic Nursing Practice Skills	1
NURS 306	Determinants of Wellness	5
NURS 308	Restorative Nursing Practice I	
NURS 312	Pathophysiology	3
NURS 314	Psychopathology	2
NURS 315	Practicum I	4
NURS 317	Practicum II	3
NURS 318	Practicum III	3
NURS 319	Practicum IV	3
NURS 332	Pharamacologic Nursing Responsibility	3
NURS 405	Introduction to Nursing Research	3
NURS 408	Restorative Nursing Practice II	4
NURS 409	Professionalism in Nursing Practice	2
NURS 411	Topics in Health Care Delivery	3
NURS 417	Practicum V	3
NURS 418	Practicum VI	3
NURS 419	Practicum VII	3
NURS 420	Practicum VIII	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 OF126

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 MAJOR: BACCALAUREATE FOR THE REGISTERED NURSE (BRN)

MAJOR: BACCALAUREATE FOR THE REGISTERED HORSE (BRIN)
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 24 credits, to include a minimum of one course in each of the
STAT 200 Basic Statistical Practice 3

Literature cou Philosophy c	e (second English composition course) urse ourse	3
Psychology o	ourse	3
Sociology co	urse	.3
	elopment course	
Kestricted ele	ctive chosen from the followingry, History, Philosophy, Music, Theatre, Comparative Litera-	J
ture. Black A	merican Studies, Economics, Political Science, Women's Stud-	
ies, Foreign l	anguages and Literatures, Linguistics, and English	
NURS 312	Pathophysiology	4
NURS 314	Psychopathology	3
NURS 340	Current Perspectives in Professional Nursing	2
NURS 342	Nursing Informatics	2
NURS 343	Transition to Baccalaureate Nursing Education	
NURS 344	Wellness/Health Assessment	
NURS 405	Introduction to Nursing Research	
NURS 411	Topics in Health Care Delivery	3
NURS 441	Learning Lab: Health Assessment]
NURS 442	Community Health Nursing	
NURS 443	BRN Role Practicum	
NURS 445	Nursing Research Applications	
NURS 446	Leadership/Organizational Behavior	2
ELECTIVE	ES	
	d courses are completed, sufficient elective credits must be taken imum credits required for the degree.	to

CREDITS TO TOTAL A MINIMUM OF125

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 career-related 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 focusing 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

5tudents 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-)
MAJOR REQUIREMENTS
Humanities electives
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
or
ECON 151 Introduction to Microeconomics: Prices and Markets 3 PSYC 201 General Psychology 3 Sociology course 3 BUAD 309 Management and Organizational Behavior 3 FOSC 305 Food Science (minimum grade of C-) 3 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 x66) may count toward the fulfillment of this requirement.
NTDT 103 Introduction to Nutrition Professions 1 NTDT 200 Nutrition Concepts 3 NTDT 201 Food Concepts 3 NTDT 400 Macronutrients 3 NTDT 401 Micronutrients 3 NTDT 445 Teaching Methods: Nutrition and Food 3 NTDT courses (300-level or higher) 9 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.)

CREDITS TO TOTAL A MINIMUM OF120

DEGREE: B. MAJOR: D	ACHELOR OF SCIENCE IETETICS	
CURRICULUM	CREDIT	S
ENGL 110 Three credits i	Y REQUIREMENTS Critical Reading and Writing (minimum grade C-) 3 n an approved course or courses stressing 3 thnic, and/or gender-related content (see p. 57)	;
MAJOR RE	QUIREMENTS	
CHEM 101/1	octives 6 02 General Chemistry	;
CHEM 213 CHEM 214/2 BISC 207/20 BISC 276	04 General Chemistry 8 Elementary Organic Chemistry 4 16 Elementary Biochemistry with Lab 8 Introductory Biology I and II 8 Human Physiology 4 Introduction to Microbiology 4 Economic Issues and Policies	1
ECON 151 PSYC 201	Introduction to Microeconomics: Prices and Markets General Psychology	3
	owing courses	i
SOCI 201	Introduction to Society	
SOCI 203	The Individual and Society	
SOCI 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	
SOCI 310	Sociology of Healthcare	
BUAD 309	Management and Organizational Behavior	3
FOSC 305	Food Science (minimum grade C-)	3
MATH 114 or	se selected from: STAT 200, PSYC 309, FREC 408 Elementary Mathematics and Statistics	3
Successful per Department of	formance on the Proficiency Test in Mathematics administered by Mathematical Sciences	
A minimum gr	ade of C- must be achieved for credits to count toward the fulfillme n NTDT; a minimum grade of C- in 200-level courses must be	n
achieved to p	roceed to upper-level courses; only 300-level courses and a maxi-	
mum of four c	redits of Special Problems/Independent Study (NTDT x66) may	
	the fulfillment of this requirement. Introduction to Nutrition Professions.	,
NTDT 103 NTDT 200	Nutrition Concepts	3
NTDT 201	Food Concepts	3
NTDT 321 NTDT 322	Quantity Food Production and Service. Management of Food and Nutrition Services	
NTDT 326	Onsite Food Products	3
NTDT 330	Nutritional Counseling Macronutrients	3
NTDT 400 NTDT 401	Micronutrients	ś
NTDT 403	Dietetics Seminar)
NTDT 421 NTDT 445	Nutrition Assessment Methods Teaching Methods: Nutrition and Foods	3
NTDT 450	Medical Nutrition Therapy I	3
NTDT 451	Medical Nutrition Therapy II	3
NTDT Restricte	Community Nutrition ad Elective (minimum grade of C- must be achieved)	ś
One of the fol		
NTDT 305	Nutrition in the LifeSpan	
NTDT 350 NTDT 420	Nutrition and Older Adults Maternal and Infant Nutrition	
ELECTIVE		
	courses are completed, sufficient elective credits must be taken to	
meet the minis	num credits required for the degree	•
May include /	Military Science, Music, or Physical Education (Only two credits of hysical 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	

CREDITS TO TOTAL A MINIMUM OF120

DEGREE: BACHELOR OF SCIENCE MAJOR: NUTRITIONAL SCIENCES
CURRICULUM CREDITS
UNIVERSITY REQUIREMENTS ENGL 110 Critical Reading and Writing (minimum grade C-)
MAJOR REQUIREMENTS
Humanities electives
or ECON 151 Introduction to Microeconomics: Prices and Markets 3 Social Science electives
FOSC 305 Food Science (minimum grade C-) 3 FREC 408 Research Methods 3 MATH 221/222 Calculus I and II
MATH 241/242 Analytic Geometry and Calculus A and B6-8
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 x66) may count toward the fulfillment of this requirement. NTDT 200 Nutrition Concepts
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.)

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.

CREDITS TO TOTAL A MINIMUM OF120