# **Athletic Training**

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The Bachelor of Science in Athletic Training uses a competency-based approach in both the classroom and clinical settings. Using a medical education model, athletic training students gain experience in a variety of educational domains to prepare them to serve as allied health care providers for the physically active population. Certified Athletic Trainers have specialized education in the prevention, evaluation, diagnosis, and treatment of injuries and illness affecting physically active populations. Educational content is based on cognitive (knowledge), psycho-motor (skills), and clinical proficiencies (professional, practice-oriented outcomes). The Athletic Training Education Program (ATEP) incorporates hands-on experience in various professional settings. The Athletic Training Education Program (NU-ATEP) is accredited by the Commission on the Accreditation of Athletic Training Education (CAATE). Graduates are eligible to sit for the National Athletic Trainers' Association (NATA) Board of Certification (BOC) examination.

# **Entrance Requirements**

Students may decide to pursue the Athletic Training coursework during the fall semester of their freshman year, but they must apply for entrance into the professional phase of the Athletic Training Education Program (ATEP) during the spring semester of their freshmen year. By that time, they must have completed, or be enrolled, in the following courses and earn a minimum grade of C:

SM 136	Emergency Care, Injury/Illness	3
SM 138	Introduction to Sports Medicine	3
SM 220	Care and Prevention of Athletic Injuries	4
SM 128	Clinical Anatomy I	3
SM 129	Clinical Anatomy II	3

Students not meeting the minimum criteria will need to correct any deficiencies before being considered for entrance into the professional phase of the Athletic Training Education Program (ATEP). Athletic Training students (ATS) must adhere to Norwich University policies and procedures, as well as the policies and procedures of the Athletic Training Education Program and of clinical sites.

# **B.S. in Athletic Training - Curriculum Map**

First Year			
Fall	Credits	Spring	Credits
MA 232 Elementary Statistics	3	EN 102 Composition and Literature II	3
SM 136 Emergency Care, Injury/Illness	3	PY 211 Introduction to Psychology	3
SM 138 Introduction to Sports Medicine	3	SM 139 Health Science Research Methods	2
SM 128 Clinical Anatomy I	3	SM 220 Care and Prevention of Athletic Injuries	4
EN 101 Composition and Literature I	3	SM 129 Clinical Anatomy II	3
	15		15
Second Year			<u> </u>
Fall	Credits	Spring	Credits
SM 212 Health Promotion	3	SM 232 Lower Extremity Injuries	3
SM 228 Clinical Physiology I	4	SM 229 Clinical Physiology II	4
SM 230 Fundamentals of Evidence-Based Practice	2	SM 201 Clinical Education in Athletic Training II	2
SM 231 Management of Spine and Pelvic Conditions	3	PE 260 Personal and Community Health	3
SM 200 Clinical Education in Athletic Training I	1	CH 101 Introduction to General Chemistry	4
MA 235 Clinical Mathematical Methods	3		1
	16		16
Third Year			'
Fall	Credits	Spring	Credits
SM 420 Therapeutic Modalities	4	PE 371 Physiology of Exercise	4
SM 300 Clinical Education in Athletic Training III		SM 422 Therapeutic Exercise	4
SM 233 Upper Extremity Injuries		BI 253 Foods and Nutrition	4
CH 102 Introduction to Organic and Biochemistry	4	SM 301 Clinical Education in Athletic Training IV	4
	15		16

Fourth Year						
Fall	Credits	Spring	Credits			
SM 439 Leadership & Management in Sports Medicine	3	SM 401 Clinical Education in Athletic Training VI	4			
SM 400 Clinical Education in Athletic Training V	4	SM 451 Capstone Experience II	1			
History Elective	3	Humanities Elective	3			
Literature Elective	3	Free Elective	3-4			
Free Elective	3-4	SM 460 Emerging Practice Skills	3			
SM 450 Capstone Expericence I	1		'			
	17-18		14-15			

# **Athletic Training Courses**

#### ST 310 Upper Extremity Injuries 3 Credits

Advanced athletic training course that incorporates areas of assessment/ diagnosis, clinical anatomy and biomechanics utilizing evidence-based medicine to provide a comprehensive approach to caring for upper extremity and cervical/thoracic spine injuries. Classroom 3 hours. Prerequisite: SM 220.

#### ST 311 Clinical Education in Athletic Training I 2 Credits

Emphasis will be placed on the application of knowledge and skills introduced in BI 216 (Human Anatomy and Physiology), PE 260 (Personal and Community Health), and SM 220 (Care and Prevention of Athletic Injuries). This course will also provide the opportunity for students to further develop clinical proficiencies introduced in preceding courses. Supervised practicum in an athletic training setting. Class meets for 2 hours/week utilizing lecture, demonstrations and hand-on instructional techniques plus Clinical Rotation (average 4 hours/week). Prerequisites: SM 226 and SM 220, PE 260 and BI 216. Open only to declared Sports Medicine-Athletic Training Concentration students.

#### ST 320 Lower Extremity Injuries 3 Credits

Advanced athletic training course that incorporates areas of assessment/ diagnosis, clinical anatomy and biomechanics utilizing evidence-based medicine to provide a comprehensive approach to caring for lower extremity, pelvis and lumbar spine injuries. Classroom 3 hours. Prerequisite: SM 220.

### ST 321 Clinical Education in Athletic Training II 2 Credits

Emphasis will be placed on the application of knowledge and skills introduced in PE 365 (Kinesiology) and ST 310 (Upper Extremity Injuries). This course will also provide the opportunity for students to further develop clinical proficiencies introduced in preceding courses. Supervised practicum in an athletic training setting. Class meets for 2 hours/week utilizing lecture, demonstrations and hands-on instructional techniques plus Clinical Rotation (average 4 hours/week). Prerequisites: ST 310.

#### ST 410 Clinical Education in Athletic Training III 3 Credits

Emphasis will be placed on the application of knowledge and skills introduced in PE 371 (Physiology of Exercise), SM 420 (Therapeutic Modalities) and ST 320 (Lower Extremity Injuries). This course will also provide the opportunity for students to further develop clinical proficiencies introduced in preceding courses. Supervised practicum in an athletic training session. Class meets 2 hours/week utilizing lecture, demonstrations and hands-on instructional techniques plus Clinical Rotation (average 7 hours/week). Prerequisites: ST 321 and ST 320, SM 420 and PE 371.

#### ST 421 Clinical Education in Athletic Training IV 3 Credits

Emphasis will be placed on the application of knowledge and skills introduced in SM 422 (Therapeutic Exercise) and SM 437 (Senior Seminar I). This course will also provide the opportunity for students to further develop clinical proficiencies introduced in preceding courses. Supervised practicum in an athletic training setting. Class meets for 2 hours/week utilizing lecture demonstrations and hands-on instructional techniques plus Clinical Rotation (average 8 hours/week). Prerequisites: ST 410, SM 422, PE 371 and SM 437.

# **Sports Medicine Courses**

#### SM 128 Clinical Anatomy I 3 Credits

This course is part one of a two part series of anatomy courses in a modular format aligned with clinical practice. It provides an introduction to human anatomy with a basic survey of the body and pathological processes. Students will learn basic concepts related to anatomy, pathology and medical assessment of the head, eyes, ears, nose, throat, neck, back, and upper extremities. Classroom 2 hours, laboratory 2 hours. Offered fall semesters.

#### SM 129 Clinical Anatomy II 3 Credits

This course is part two of a two part series of anatomy courses in a modular format aligned with clinical practice. It provides an introduction to human anatomy with a basic survey of the body and pathological processes. Students will learn basic concepts related to anatomy, pathology and medical assessment of the thorax, abdomen, pelvis, cranial nerves, and lower extremities. Classroom 2 hours, laboratory 2 hours. Offered spring semesters.

#### SM 136 Emergency Care, Injury/Illness 3 Credits

#### SM 138 Introduction to Sports Medicine 3 Credits

This course provides students with an introduction to the principles of pharmacology, medical terminology, and documentation used in the care of physically active individuals.

# SM 139 Health Science Research Methods 2 Credits

This course provides the foundation for understanding basic research methods and the application of research findings to health care. Current literature is used to demonstrate the fundamentals of research design, research ethics, basic biostatistics, and other research-related issues applicable to future health care providers. Classroom 2 hours. Prerequisite: MA 232. Offered spring semesters.

# SM 199 New Course 3 Credits

#### SM 200 Clinical Education in Athletic Training I 1 Credit

This course provides students the opportunity to integrate clinical proficiencies introduced in prerequisite courses during a supervised practicum in an athletic training setting. Clinical rotation(s) (3 hours/week) and clinical proficiency evaluations. Prerequisites: SM 136, SM 138, and SM 220.

#### SM 201 Clinical Education in Athletic Training II 2 Credits

This course provides students the opportunity to integrate clinical proficiencies introduced in prerequisite courses during a supervised practicum in an athletic training setting. Clinical rotation(s) (6 hours/week) and clinical proficiency evaluations. Prerequisites: SM 212 and 231, MA 235.

#### SM 210 Assessment of Injury and Illness 4 Credits

Building on the assessment principles acquired in SM 138 and SM 220; this course focuses on the techniques necessary to evaluate body systems for injury/illness. Classroom 3 hours, laboratory 3 hours. Prerequisites: SM 220. Co-Requisite: BI 216.

#### SM 212 Health Promotion 3 Credits

This course provides students with the knowledge and skills essential for understanding the etiology and prevention of common injuries and illness. Special emphasis is placed on acute and chronic conditions of the musculoskeletal system and chronic conditions of the cardiovascular, endocrine and respiratory systems. Classroom 3 hours. Offered fall semesters.

#### SM 220 Care and Prevention of Athletic Injuries 4 Credits

Course provides students with the knowledge and skills essential for the proper prevention, evaluation, and treatment of common athletic injuries. Risk management and professional ethics are stressed. Classroom 3 hours, laboratory 3 hours. Prerequisite: SM 138.

#### SM 226 Clinical Education in Sports Medicine 2 Credits

Emphasis will be placed on the application of knowledge and skills introduced in SM 135, SM 138, SM 210 and BI 215. This course provides students the opportunity to develop clinical proficiencies introduced in preceding courses. Supervised practicum in athletic train setting. Class meets for 2 hours/week utilizing lecture, demonstrations and hands-on instructional techniques, plus Clinical Rotation (average 4 hours/week). Prerequisites: SM 135 and SM 138.

#### SM 227 Clinical Anatomy&Biomechanics 3 Credits

This course is designed to explore clinical anatomy and biomechanical principles, exposing students to the structural interrelationships that serve to form the basis for normal function and as a means to understanding structural and functional pathology. Classroom 3 hours. Co-requisite: SM 220.

### SM 228 Clinical Physiology I 4 Credits

This course is part one of a series of two physiology courses in a modular format aligned with clinical practice. It provides an introduction to human physiology with a basic survey of the physiologic and pathological processes. Students will learn concepts related to cellular, neuromuscular, renal, and cardiovascular physiology. Classroom 3 hours, laboratory 3 hours. Offered fall semesters.

# SM 229 Clinical Physiology II 4 Credits

This course is part two of a series of two physiology courses in a modular format aligned with clinical practice. It provides an introduction to human physiology with a basic survey of the physiologic pathological processes. Students will learn concepts related to respiratory, gastrointestinal, endocrine, and reproductive physiology and temperature regulation. Classroom 3 hours, laboratory 3 hours. Prerequisite: SM 228. Offered spring semesters.

#### SM 230 Fundamentals of Evidence-Based Practice 2 Credits

This course prepares students to make independent judgments about the validity of clinical research and implement evidence-based clinical practice in their careers. Focus is on concepts of evidence-based practice with emphasis on forming answerable clinical questions, effective literature search strategies, and structured evaluation of the strength and relevance of clinical evidence. Classroom 2 hours. Offered spring semesters.

#### SM 231 Management of Spine and Pelvic Conditions 3 Credits

This course will focus on a critical analysis of injuries and conditions that may affect the spine and pelvis in physically active individuals. The application of joint and musculoskeletal anatomy will be utilized to assess the various joints and body regions of the spine and pelvis to determine the appropriate management of these conditions. Classroom 2 hours, Laboratory 2 hours. Offered fall semesters.

#### SM 232 Lower Extremity Injuries 3 Credits

This course will focus on a critical analysis of injuries and conditions that may affect the lower extremity in physically active individuals. The application of joint and musculoskeletal anatomy will be utilized to assess the various joints and body regions of the lower extremity to determine the appropriate management of these conditions. Classroom 2 hours, Laboratory 2 hours. Offered spring semesters.

#### SM 233 Upper Extremity Injuries 3 Credits

This course will focus on a critical analysis of injuries and conditions that may affect the upper extremity in physically active individuals. The application of joint and musculoskeletal anatomy will be utilized to assess the various joints and body regions of the upper extremity to determine the appropriate management of these conditions. Classroom 2 hours, Laboratory 2 hours. Offered fall semesters.

# SM 299 Topics 1-3 Credit

#### SM 300 Clinical Education in Athletic Training III 4 Credits

This course provides students the opportunity to integrate clinical proficiencies introduced in prerequisite courses during a supervised practicum in an athletic training setting. Clinical rotation(s) including non-traditional seasons (12 hours/week) and clinical proficiency evaluations. Prerequisites: SM 228, SM 229, and SM 232.

# SM 301 Clinical Education in Athletic Training IV 4 Credits

This course provides students the opportunity to integrate clinical proficiencies introduced in prerequisite courses during a supervised practicum in an athletic training setting. Clinical rotation(s) (12 hours/week) and clinical proficiency evaluations. Prerequisites: SM 233 and SM 420.

#### SM 400 Clinical Education in Athletic Training V 4 Credits

This course provides students the opportunity to integrate clinical proficiencies introduced in prerequisite courses during a supervised practicum in an athletic training setting. Clinical rotation(s) including non-traditional seasons (12 hours/week) and clinical proficiency evaluations. Prerequisites: SM 212, SM 420, SM 422; BI 253 and PE 371.

# SM 401 Clinical Education in Athletic Training VI 4 Credits

This course provides students the opportunity to integrate clinical proficiencies introduced in prerequisite courses during a supervised practicum in an athletic training setting. Clinical rotation(s) (12 hours/week) and clinical proficiency evaluations. Prerequisites: SM 400 and SM 439.

#### SM 420 Therapeutic Modalities 4 Credits

Investigation of the physiological response of selected human body tissues to trauma and inactivity as well as the implications of said responses for the selection, use, and application of therapeutic modalities. Classroom 3 hours, laboratory 3 hours. Prerequisites: SM 220.

#### SM 422 Therapeutic Exercise 4 Credits

Investigation of principles, objectives, indications, contraindications and progression of various modes of conditioning and reconditioning exercises. Methods for evaluation, progress assessment and development of criteria for return to activity. Classroom 3 hours, laboratory 3 hours. Prerequisite: SM 420.

#### SM 426 Internship 12 Credits

A course designed to provide the Sports Medicine students with an intern-type experience in a professional setting appropriate to their career goals. Prerequisite: satisfactory completion of all courses in the major through the sixth semester. Cross listed as PE/SM. A student may not receive credit for both.

#### SM 439 Leadership & Management in Sports Medicine 3 Credits

#### SM 440 Evidence-Based Sports Med 3 Credits

Part of a two-semester capstone experience in sports medicine/athletic training. This course focuses on the development and utilization of evidence-based practice research as it is applied to sports medicine. Prerequisites: SM 439 and MA 232.

#### SM 450 Capstone Expericence I 1 Credit

This course will focus on the development of two evidence-based practice projects that have direct application to clinical practice. Classroom 1 hour. Offered fall semesters.

#### SM 451 Capstone Experience II 1 Credit

This course will focus the presentation and evaluation of two evidencebased practice projects from SM 450. Classroom 1 hour. Offered spring semesters.

# SM 460 Emerging Practice Skills 3 Credits

This course will focus on emerging topics in sports medicine practice. Included in the course will be advanced airway management, advanced wound closure techniques, IV therapy, advanced cardiac examination and advanced immobilization techniques. Classroom 2 hour, Laboratory 2 hours. Offered spring semesters.