

Health Science (HE)

HE 136 Emergency Care of Injury and I 3 Cr.

Follows the national standards for Advanced First Aid, CPR for Professional Rescuers, and Bloodborne Pathogens. Recognition, care, and temporary treatment of injuries and illness are discussed and the associated skills are practiced. In addition, this course will introduce basic concepts of emergency actions plans and initial injury evaluation. Upon successful completion of the course, students will be awarded national certification cards for: Advanced First Aid, CPR for Professional Rescuers, and Bloodborne Pathogens training. 2 lecture hours, 2 laboratory hours. (Spring).

HE 138 Introduction to Health Professions 3 Cr.

Provides students with an introduction to the principles of pharmacology, medical terminology, and documentation used in the care of physically active individuals. Students will have opportunities to explore various careers in the field of healthcare. 3 lecture hours. Prerequisite: Health Science (HLS) standing. (Fall).

HE 139 Health Science Research Methods 3 Cr.

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. Focus is on concepts of evidence-based practice with emphasis on forming answerable clinical questions, effective literature search strategies, and evaluation of the strength and relevance of clinical evidence. 3 lecture hours. (Fall).

HE 188 No Norwich Equivalent 6 Cr.

HE 200 Foods and Nutrition 4 Cr.

Provides a background in organizational structure and activities that emphasize the physiological basis of nutrition with an analysis of nutritional needs at various age levels. Consideration given to the relationship of nutrition to health and fitness, principles of food selection, metabolism of nutrients, vitamins and minerals, energy balance and obesity, food safety and technology. 3 Lecture hours. 2 Laboratory hours. Prerequisite: BI 101 (Spring).

HE 212 Health Promotion 3 Cr.

Provides students with the knowledge and skills essential for understanding the etiology and prevention of common injuries and illness. Students will learn practical and theoretical skills needed to plan, implement, and evaluate health promotion programs in a variety of settings. Students will gain an understanding of how assessment, public policy, culture, and research impact health promotion planning. 3 lecture Hours. Prerequisites: PE 163, HE 139. (Fall).

HE 214 Clinical Anatomy 3 Cr.

This course is designed to explore musculoskeletal anatomy relating to human performance. Students will be able to identify major anatomical landmarks through palpation and perform range of motion assessments upon completion of the course. 3 lecture hours. Prerequisite/ Corequisite: BI 215, BI 216.

HE 256 Fundamentals of Epidemiology 3 Cr.

Covers applications of Epidemiologic methods and procedures to the study of the distribution and determinants of health and diseases, morbidity, injuries, disability, and mortality in populations. Epidemiologic methods for the control of conditions such as infectious and chronic diseases, mental disorders, community and environmental health hazards, and unintentional injuries are discussed. Other topics include quantitative aspects of epidemiology, data sources, measures of morbidity and mortality, evaluation of association and causality, study design, and screening for disease. 3 lecture hours. Prerequisites: SM 139 Health Science Research Methods and MA 232 Elementary Statistics. (Spring).

HE 288 No Norwich Equivalent 6 Cr.

HE 310 Pathophysiology in Sports Medicine 4 Cr.

The study of human pathology with primary emphasis on the pathogenesis of those pathological states most commonly encountered in sports medicine, their disruption of normal physiology and the body's mechanism for restoring the steady state (homeostasis) are discussed in this course. The biology of the disease process is examined at the molecular, cellular, tissue, organ and organ system level. 3 Lecture hours. 2 Laboratory hours. Prerequisites: BI 215, BI 216, Grade C or higher or Permission of instructor. (Spring).

HE 388 No Norwich Equivalent 6 Cr.

HE 439 Leadership & Management in Healthcare 3 Cr.

Focuses on leadership, management, and professional ethics in healthcare. Students will complete a series of organization and administrative projects and papers focused on personal and professional ethics. 3 lecture hours. Prerequisite: J2 standing or higher.

HE 450 Evidence - Based Healthcare 3 Cr.

A culminating experience in the health science program providing students an opportunity to synthesize, integrate and apply skills and competencies gained through their previous coursework. Students develop an evidence-based research topic or service project in healthcare based on an area of interest, prepare a written review of the existing scientific literature, and present work at the end of the semester. Satisfies general education capstone requirement. J2 or higher Health Science (HLS) standing. 3 lecture hours. Prerequisites: HE 212 Health Promotion, HE 256 Fundamentals of Epidemiology. (Spring).

HE 488 No Norwich Equivalent 6 Cr.

HE 501 Athletic Training in Healthcare 1 Cr.

Provides the framework of athletic training practice as a member in a healthcare system. Students apply concepts of evidence-based practice, disablement models, and health information technologies in the investigation of Athletic Training within a global health care system. 2 lecture hours. Prerequisite: MAT students and HS majors on accelerated MAT track. (Fall).

HE 502 Musculoskeletal Evaluation and Interventions 4 Cr.

Provides the foundational knowledge and skills required to evaluate the musculoskeletal system as well as select and safely apply therapeutic interventions. Patient evaluations and effectiveness of interventions applied will be documented in electronic medical records. An evidence-based approach to selecting interventions will be utilized throughout the course. 6.5 lecture hours, 2 lab hours. Prerequisite: MAT students and HS majors on accelerated MAT track. (Fall).

HE 503 Clinical Experience in Athletic Training I 2 Cr.

Focuses on the student's clinical application of knowledge previously learned in didactic courses. Students participate in clinical experience rotations that provide the opportunity for structured observation, and evaluation of clinical competencies/proficiencies under the direct supervision of a Preceptor at the University or an affiliated site. 6 hours clinical. Prerequisite: MAT students and HS majors on accelerated MAT track. (Fall).

HE 504 Advanced Emergency Management 1 Cr.

Focusing on the essential skills required for students to be able to appropriately prevent, plan for, respond to, and manage emergencies in athletic medicine. Topics within the course consist of patient assessment, advanced wound closure, treatment of the equipment-laden athlete, environmental emergencies, and implementing emergency action plans. Inter-professional communication and care will be emphasized throughout. 2 lecture hours. Prerequisite: MAT students and HS majors on accelerated MAT track. (Fall).

HE 505 Care of Orthopedic Injuries I 4 Cr.

Explores injuries and conditions affecting the lumbar spine and lower extremity. Students incorporate concepts in evidence-based practice, health information technology, and musculoskeletal evaluation and apply them specifically to lumbar and lower extremity pathologies in formulating a plan of care. 6.5 lecture hours, 2 lab hours. Prerequisite: MAT students and HS majors on accelerated MAT track. (Fall).

HE 506 Therapeutic Interventions I 3 Cr.

Investigates technological and other mechanical agents that may be implemented in patient care that facilitate recovery from injury and promote overall improved health. Students select, and gain experience using, current biometric measurement tools to track health, physical modalities to promote the healing environment, and hands-on clinical skills that may facilitate a patient's recovery. 2 lecture hours, 1 lab hour. Prerequisite: MAT students and HS majors on accelerated MAT track. (Fall).

HE 507 Care of Orthopedic Injuries II 4 Cr.

Explores injuries and conditions that may affect the cervical spine, thoracic spine, and upper extremity. Students incorporate concepts in evidence-based practice, health information technology, and musculoskeletal evaluation and apply them specifically to spine and upper extremity pathologies in formulating a plan of care. 3 lecture hours, 1 lab hour. Prerequisite: HE 505 Care of Orthopedic Injuries I (B). MAT students and HS majors on accelerated MAT track. (Spring).

HE 508 Therapeutic Interventions II 4 Cr.

Investigates the application of various therapeutic activities implemented in order to aid in patient recovery from injury and restoration of function. Students select and gain experience using current techniques for describing dysfunction as well as various techniques for improving patient's mobility, strength, and activity performance in order to facilitate a patient's recovery. 3 lecture hours, 1 lab hour. Prerequisite: HE 506 Therapeutic Interventions I (B). MAT students and HS majors on accelerated MAT track. (Spring).

HE 509 Clinical Experience in Athletic Training II 3 Cr.

Focuses on the student's clinical application of knowledge previously learned in didactic courses. Students participate in clinical experience rotations that provide the opportunity for hands-on application, demonstration, and evaluation of clinical competencies/proficiencies under the direct supervision of a Preceptor at the University or an affiliated site. 9 hours clinical. Prerequisite: HE 503 Clinical Experience in Athletic Training I, HE 501 Athletic Training in Healthcare, HE 502 Musculoskeletal Evaluation and Intervention, HE 504 Advanced Emergency Management, HE 505 Care of Orthopedic Injuries I, HE 506 Therapeutic Interventions I (B) MAT students and HS majors on accelerated MAT track. (Spring).

HE 510 Simulation in Athletic Training I 1 Cr.

Students perform clinical testing in a laboratory setting with the course instructor that re-evaluates students' psychomotor and critical thinking skills through mock patient interaction during scenario-based simulations. 1 practicum hour. Prerequisite: HE 503 Clinical Experience in AT I (B), HE 501 Athletic Training in Healthcare (B), HE 502 Musculoskeletal Evaluation and Intervention (B), HE 504 Advanced Emergency Management (B), HE 505 Care of Orthopedic Injuries I (B), HE 506 Therapeutic Interventions I (B). Graduate studies in Athletic Training; MAT students and HS majors on accelerated MAT track. (Spring).

HE 601 Medical Conditions in Athletic Training 1 3 Cr.

Students investigate pathologies that are common in physically active individuals by applying prior knowledge of the evaluation process as well as perform and interpret appropriate diagnostic testing necessary in the evaluation, and management of acute and chronic medical conditions affecting physical health. Body systems examined include the nervous system, cardiovascular system, respiratory system, eyes, ears, nose, and throat. 3 lecture hours, 1 lab hour. Prerequisite: HE 504 Advanced Emergency Management (B), HE 502 Musculoskeletal Evaluation and Interventions (B). Graduate Studies in Athletic Training. (Summer).

HE 602 Medical Conditions in Athletic Training II 3 Cr.

Students investigate pathologies that are common in physically active individuals by applying prior knowledge of the evaluation process as well as perform and interpret appropriate diagnostic testing necessary in the evaluation, and management of acute and chronic medical conditions affecting physical and mental health. Body systems examined include the gastrointestinal, renal, genitourinary, endocrine, and immune systems. Students also critically examine the role of mental health in athletic training. 3 lecture hours, 1 lab hour. Prerequisite: HE 504 Advanced Emergency Management (B), HE 502 Musculoskeletal Evaluation and Interventions (B). Graduate studies in Athletic Training. Course must be passed with a grade of B to progress in the program. (Summer).

HE 603 Clinical Experience in Athletic Training III 2 Cr.

Focuses on the student's clinical application of knowledge previously learned in didactic courses. Students participate in a clinical experience rotation that provides the opportunity for hands-on application, demonstration, and evaluation of clinical competencies/proficiencies under the direct supervision of a Preceptor at the University or an affiliated site. 32 hours clinical. Prerequisite: HE 509 Clinical Experience in Athletic Training II (B), HE 510 Simulation in Athletic Training I (B), HE 508 Therapeutic Interventions II (B), HE 601 Medical Conditions in Athletic Training (B). Graduate studies in Athletic Training. (Summer).

HE 604 Clinical Experience in Athletic Training IV 5 Cr.

Focuses on the student's clinical application of knowledge previously learned in didactic courses. Students participate in a clinical experience rotation that provides the opportunity for hands-on application, demonstration, and evaluation of clinical competencies/proficiencies under the direct supervision of a Preceptor at the University or an affiliated site. 32 hours clinical. Prerequisite: Graduate studies in Athletic Training. Prerequisite: HE 603 Clinical Experience III (B). (Fall).

HE 605 Administration in Athletic Training 2 Cr.

Emphasis is placed on the development and critical analysis of policies and procedures guiding clinical practice and management of athletic training facilities in order to provide patient-centered care to a variety of populations. 2 lecture hours. Prerequisite: HE 602 Medical conditions in AT 2 (B). Graduate Studies in Athletic Training. (Fall).

HE 606 Injury and Disease Prevention 3 Cr.

Investigates the prevalence of common diseases and health conditions in athletic and physically active populations. Students evaluate patients, select interventions, and provide education in order to prevent or minimize the effects of chronic health disorders, prevent injury, and improve sports performance. 5 lecture hours, 2 lab hours. Prerequisite: HE 502 Musculoskeletal Evaluation and Interventions (B), HE 602 Medical Conditions in Athletic Training II (B). Graduate Studies in Athletic Training. (Fall).

HE 607 Simulation in Athletic Training II 1 Cr.

Students perform clinical testing in a laboratory setting with the course instructor that re-evaluates students' psychomotor and critical thinking skills through mock patient interaction during scenario-based simulations. 2 lab hours. Prerequisite: HE 508 Therapeutic Interventions II (B), HE 602 Medical Conditions in Athletic Training II (B), HE 507 Care of Orthopedic Injuries II (B). Graduate studies in Athletic Training. (Fall).

HE 608 Leadership and Professional Advancement 3 Cr.

Examines professional regulatory agencies in the field of Athletic Training to provide context for how the profession may be advanced. Students learn different leadership styles that will be applied in a service-oriented project promoting the profession of Athletic Training. 3 lecture hours. Prerequisite: HE 605 Administration in Athletic Training. Graduate studies in Athletic Training. (Spring).

HE 609 Simulation in Athletic Training III 1 Cr.

Students perform clinical testing in a laboratory setting where students' patient interaction, psychomotor, and critical application skills are re-evaluated. Testing reinforces material from the previous semester, and includes skills in musculoskeletal evaluation of the lower extremity and emergency care. Course must be passed with a grade of B to progress in the program. 2 lab hours. Prerequisite: HE 605 Administration in Athletic Training (B), HE 606 Injury and Disease Prevention (B), HE 607 Simulation in Athletic Training II (B). Graduate Studies in Athletic Training. (Spring).

HE 610 Clinical Experience V 3 Cr.

This course focuses on the student's clinical application of knowledge previously learned in didactic courses. The student will participate in clinical experience rotations that provide the opportunity for hands-on application, demonstration, and evaluation of clinical competencies/proficiencies under the direct supervision of a Preceptor at the University or an affiliated site. 9 hours clinical. Prerequisite: HE 603 Clinical Experience in Athletic Training III (B), HE 605 Administration in Athletic Training (B), HE 606 Injury and Disease Prevention (B). Graduate studies in Athletic Training. (Spring).

HE 611 Seminar in Athletic Training 3 Cr.

Focuses on advanced skills related to leadership in sports medicine and addresses current "hot topics" pertinent to athletic training practice. 3 lecture hours. Prerequisite: HE 605 Administration in Athletic Training (B). Graduate Studies in Athletic Training. (Spring).