ATHLETIC TRAINING CORE COURSE DESCRIPTIONS

1223. Human Anatomy and Physiology I (4 s.h. with Lab)
This course is the first of a two-course sequence dealing with the anatomical and functional relationships of the human body. Emphasis is placed on systems integration leading to an understanding of the functions of the human organism. KN 1223 covers basic structure and function of the body (cells and tissues, organs, systems) through detailed investigations of the skeletal, muscular, and nervous systems.

1224. Human Anatomy and Physiology II (4 s.h. with Lab)
Prerequisite: KN 1223 (C or better).
This course is the second in a two-course sequence dealing with the anatomical and functional relationships of the human body. Emphasis is placed on systems integration leading to an understanding of the functions of the human organism through detailed investigations of the endocrine, circulatory, digestive, urinary, and reproductive systems.

1442. Basic Techniques in Athletic Training (2 s.h.)
Prerequisite: KN 1444 or Co-Requisite: KN 1444.
This course introduces students to basic taping and wrapping techniques that are commonly used in the prevention of joint injury in the athletic training profession. Students will obtain both didactic information and practical application of basic taping and wrapping techniques, splinting and ambulatory devices, as well as the guidelines for fitting protective equipment.

1444. Movement Injuries: Care and Prevention (3 s.h.)
Prerequisite: KN 1223.
This lecture course introduces students to the care and prevention of movement injuries. The content includes a review of pertinent anatomical structures and their relationship to injuries. The course also covers mechanisms, extrinsic and intrinsic factors, as well as basic preventative and treatment measures for common sports related injuries. Lastly, an overview of legal issues related to sports health care is also discussed.

2421. Emergency Medical Care for Health Professionals (3 s.h.)
A comprehensive course in recognition and management of trauma, sudden illness and the epidemiological analysis of trauma. Note: Advanced First Aid and CPR certification issued upon successful completion on the course.

2431. Pharmacology and Medical Documentation in Athletic Training (3 s.h.)
This course is designed to introduce students to the basic principles of Pharmacology and introduce them to terminology, note writing, and documentation techniques utilized in athletic training practice.

2441. Lower Extremities: Assessment and Treatment of Injuries (3 s.h.)
Prerequisite: KN 1444.
The first of three courses dealing with evaluation and recognition of injuries specific to physically active populations. This course focuses on injuries to the lower extremities. Note: A field experience in athletic training is required.

2442. Upper Extremities: Assessment and Treatment of Injuries (3 s.h.)
Prerequisite: Kinesiology 2441 and Kinesiology 3202 or Co-Requisite: Kinesiology 3202.
The second of three courses dealing with evaluation and recognition of injuries specific to physically active populations. This course focuses on injuries to the upper extremities. Note: A field experience in athletic training is required.

3202. Biomechanics of Human Performance (4 s.h.)
Prerequisite: KN 1223.
This course focuses on the anatomical and functional relationships among the skeletal and muscular systems and the basic mechanical principles involved in movement and sports skills.
3441. Therapeutic Modalities in Athletic Training (4 s.h.)  
**Prerequisite:** Kinesiology 1444 or permission of instructor.  
**Co-Requisite:** Kinesiology 2441.  
This course provides baseline knowledge regarding the indications, principles of application, and clinical decision making for thermal, electrical, and mechanical agents used in the management of athletic injuries.

3442. Therapeutic Exercises in Athletic Training (4 s.h.)  
**Prerequisite:** Kinesiology 1444 and/or permission of instructor.  
**Co-Requisite:** Kinesiology 2442.  
This course introduces the concepts and principles of a comprehensive rehabilitation program for managing athletic injuries.

3443. Head, Neck, and Spine: Assessment and Treatment of Injuries (3 s.h.)  
**Prerequisite:** KN 2442.  
The third of three courses dealing with evaluation and recognition of injuries specific to physically active populations. This course focuses on injuries to the head, neck, and spine.

3444. General Medical Conditions in Athletic Training (3 s.h.)  
**Prerequisite:** KN 3443 or permission of instructor.  
This course examines current issues in athletic training and sports medicine not previously presented in the undergraduate athletic training curriculum to include conditions of the thorax and abdomen, and systemic diseases.

3487-3687. Practicum in Athletic Training I and II (3 s.h. each)  
**Prerequisite:** KN 2442.  
These courses accompany the first and second clinical experiences of the athletic training curriculum in order to further develop the skills and knowledge necessary for NATA certification examination. Students will review and demonstrate lower extremity evaluations as well as discuss current injuries and practices of their clinical experiences. Isokinetic evaluation, its interpretation and incorporation into clinical practice will also be discussed.

4311. Physiology of Exercise (3 s.h.)  
**Prerequisite:** KN 2203.  
This course examines the interactive mechanisms of regulation of the metabolic, cardiovascular, pulmonary, and muscular/skeletal systems in response to an acute bout of exercise and as chronic adaptation to various types of exercise training regimens. Training principles for human performance and health/fitness promotion are derived based on these interactive physiological mechanisms and responses.

4314. Neuromuscular Principles in Strength and Conditioning (4 s.h.)  
**Prerequisite:** Kinesiology 4311.  
The course involves an in-depth study of neuromuscular anatomy and physiology with special attention to the acquisition and expression of muscular strength. The scientific basis of muscle performance will be thoroughly investigated. Contemporary training theories for the modification of strength, endurance, speed and power of human skeletal muscle will be reviewed and the results applied to special populations across the movement spectrum. This course is designed to help students integrate and synthesize a large body of knowledge in regard to the role of strength in people’s lives and how to best construct exercise-training programs whose outcomes aim to improve neuromuscular function. Via the laboratory component of this course, the students will develop expertise in exercise testing of muscular performance and exercise programming for optimal strength, endurance, speed and power. This course is predicated upon guidelines established by the National Strength and Conditioning Association (NSCA).  
**Note:** Lab fee required

4443. Organization and Administration in Athletic Training (3 s.h.)  
**Prerequisite:** KN 3443.  
This course focuses on all administrative aspects of the athletic training profession and includes but is not limited to risk management, budget development, policies and procedures as well as identifying facility hazards. This course will also cover contemporary guidelines of the prescreening and physical examination of athletes in addition to record keeping policies, injury, and progress documentation. Lastly, students will learn to develop a safe and efficient athletic training facility incorporating federal and state guidelines.
4487-4687. Practicum in Athletic Training III and IV (3 s.h. each)

**Prerequisite:** KN 3687.

These courses are designed to accompany the third and fourth clinical experiences of the athletic training curriculum in order to further develop the skills and knowledge necessary for NATA certification examination. Students will review and demonstrate evaluation, assessment, and rehabilitation of all the major joints in the body, as well as the thorax, ENT, head, and neck. In addition, students will discuss current injuries and rehabilitation practices of their clinical experiences as well as discuss and assess environmental risk factors, equipment fitting and removal.

4450. Special Topics in Athletic Training (3 s.h.)

**Prerequisite:** Kinesiology 4443 and 3687 or permission of instructor.

This course will provide advanced information about current techniques in orthopaedic surgery, functional rehabilitation, psychosocial intervention, strength and conditioning, and research. Contemporary topics such as pharmacology and nutrition as related to physically active populations will also be discussed. This course will provide opportunities to observe surgical procedures as well as participate in all aspects of current research in athletic training.

PH 1104. Nutrition and Health (3 s.h.)

Examines food habits and nutritional needs of young adults. Considers nutritional advertisements, food faddism, fad diets, deficiency diseases, and evaluation of diets.