

# ATHLETIC TRAINING (MAT)

## **MAT 1000 - Intro to Athletic Training**

### **Credit(s): 1 Credit**

This course introduces students to the athletic training profession and explores the specialties and opportunities for practice. The students participate in lectures and seminars by the athletic training faculty and practitioners across practice areas, including high school, collegiate professional, private and industrial settings. The historical foundations of athletic training and the evolution of the contemporary practice of athletic training are discussed.

## **MAT 2000 - AT Student Development I**

### **Credit(s): 1 Credit**

This course is designed to move the student from thinking about the profession of athletic training to thinking about him/herself as a future professional and a athletic trainer. Students explore the Foundational Behaviors of Professional Practice in Athletic Training. The concept of the Jesuit Mission is expanded to include consideration of the integration of Foundational Behaviors of Professional Practice. Essentials of effective career development including communication skills, critical thinking, professional networking, cultural competence, and time and energy management are addressed.

## **MAT 2930 - Special Topics**

### **Credit(s): 1-3 Credits** (Repeatable for credit)

## **MAT 2980 - Independent Study**

### **Credit(s): 1 or 3 Credits** (Repeatable for credit)

## **MAT 3000 - Athletic Training Student Development II**

### **Credit(s): 2 Credits**

This course introduces the student to the cognitive, psychomotor and affective skills integral to athletic training. These abilities lay the foundation for the development of competency in clinical practice. They are also necessary for taping, bracing, injury prevention and emergency care.

## **MAT 3230 - Exercise Physiology**

### **Credit(s): 0 or 3 Credits**

This course examines types of exercise, muscle physiology and training regimens to improve muscle strength, power and endurance. Cardiovascular and pulmonary responses to exercise and training regimens will be included. Concepts of obesity and its management also will be covered.

## **MAT 3930 - Special Topics**

### **Credit(s): 1-4 Credits** (Repeatable for credit)

## **MAT 3980 - Independent Study**

### **Credit(s): 1 or 3 Credits** (Repeatable for credit)

## **MAT 4125 - Therapeutic Modalities**

### **Credit(s): 0 or 3 Credits**

## **MAT 4930 - Special Topics**

### **Credit(s): 3 Credits** (Repeatable for credit)

## **MAT 4970 - Mastery Assurance**

### **Credit(s): 0 Credits**

The purpose of this course is to provide students with the opportunity to master course content not mastered in the prior semester. Content will be completed as described in the criteria listed on a mastery assurance learning contract set up between the instructor and the student.

## **MAT 4980 - Independent Study**

### **Credit(s): 1 or 3 Credits** (Repeatable for credit)

## **MAT 5010 - Principles of Athletic Training**

### **Credit(s): 2 Credits**

This course establishes the role of the certified athletic trainer in the prevention, recognition and treatment of commonly encountered athletic injuries. Basic concepts of injury prevention, mechanisms of injury, injury evaluation, and acute injury management are covered. Laboratory sessions to demonstrate and practice taping and wrapping are included. Offered every summer.

## **MAT 5100 - Kinesiology**

### **Credit(s): 3 Credits**

This course applies the foundational sciences of physics, human anatomy and human physiology in developing and understanding of the kinetics and kinematics of human movement in sport. Emphasis is placed on the functional motions of running, jumping, and throwing (overhand and underhand).

### **Prerequisite(s):** ANAT 1000

## **MAT 5133 - Lab Studies and Imaging**

### **Credit(s): 2 Credits**

This course covers topics in clinical testing, including clinical laboratory studies; electromyography (EMG); nerve conduction velocity (NCV); radiological studies such as X-ray and computed tomography (CT); magnetic resonance imaging (MRI); and general and vascular ultrasound.

## **MAT 5160 - Bioenergetics Human Performance**

### **Credit(s): 3 Credits**

This course establishes the role energy, metabolism, energy costs, associated metabolic changes, gender influences on metabolism, resting metabolic rate, and the thermal effects of food. All of these factors will be addressed specifically as they are evident in athletic performance.

### **Prerequisite(s):** MAT 5100 with a grade of C or higher; ANAT 1000

## **MAT 5240 - Musculoskeletal Assessment & Management I**

### **Credit(s): 0 or 4 Credits**

This course explores the pathokinematics of selected pathologies within the upper quadrant of the human body, relevant examination techniques to assist in differential diagnosis, and subsequent intervention measures.

## **MAT 5250 - Musculoskeletal Assessment and Management II**

### **Credit(s): 0-4 Credits**

This course covers the pathokinematics of selected pathologies within the lower quadrant and the examination, diagnosis and treatment of those conditions. Treatment procedures discussed and practiced include use of mobilization of bony and soft tissues, and other forms of active and passive exercise, both mechanical and non-mechanical, for a broad range of musculoskeletal conditions.

## **MAT 5500 - Rehabilitation in AT I**

### **Credit(s): 0-4 Credits**

This course provides a framework for the design and implementation of athletic rehabilitation programs. The emphasis in the course is the use of therapeutic exercise in the treatment of athletic injuries and post-surgical conditions. Rehabilitation programs are considered from early stage through terminal conditioning and functional return. Advanced high-level activities are reviewed including plyometrics and advanced proprioceptive activities.

## **MAT 5550 - Rehabilitation in Athletic Training II**

### **Credit(s): 3 Credits**

This course provides an evidence-based approach to rehabilitation of injuries and conditions associated with athletic participation. The emphasis in the course is the development of rehabilitation protocols utilizing of therapeutic modalities and therapeutic exercise. Surgical and non-surgical approaches to conditions and injuries will be addressed.

**MAT 5600 - Athletic Training Administration****Credit(s): 3 Credits**

This course is concerned with the organization and administration of athletic training services in high school, collegiate, and professional athletics, as well as non-traditional athletic training sites including industry and health clubs. Topics of emphasis include medicolegal liability, budgeting, facility design, documentation and record keeping, drug testing, professional ethics, pharmacology issues and components of pre-participation physicals. NCAA compliance issues will also be discussed.

**MAT 5620 - Psychology of Sport and Injury****Credit(s): 3 Credits**

This course examines the effects of culture, motivation, personality, attitudes, competition and group dynamics on sport performance. In addition, the psychological effects of exercise and competition are discussed, including pathological conditions such as exercise addiction and disordered eating. This course also deals with psychological response to injury, treatment, rehabilitation and return to participation.

**MAT 5650 - Research in Athletic Training****Credit(s): 2 Credits**

Change Course Description to: This course will introduce athletic training students to several types of clinical research designs including designs for group studies, epidemiological studies, survey research and qualitative studies. Review of literature, definition of problem and formatting design, reporting data and conclusions are presented. Interpretation of selected statistical methods will also be included.

**MAT 5700 - AT Clinical Practicum I****Credit(s): 3 Credits (Repeatable for credit)**

This course is designed to provide the student with the first clinical experience in athletic training. Building on the basic knowledge acquired in MAT 501, the student will work in the training room under the supervision of an approved clinical instructor (ACI). The focus in this experience will be familiarization with the training room environment, developing competency in taping/wrapping, documentation and record-keeping, and practice/game preparation.

**MAT 5750 - AT Clinical Practicum II****Credit(s): 3 Credits (Repeatable for credit)**

This is the second clinical course for the athletic training student. In this course, the student is assigned to an intercollegiate team for the semester and assists the ACI with pre-participation exams, daily preparation and coverage of practices and games (home and away) and injury management and rehabilitation. The student focuses on developing competency in the examination and treatment of upper and lower extremity injuries during this semester.

**MAT 5800 - Medical Conditions and Physical Activity****Credit(s): 3 Credits**

This course is a review of responses of the body to exercise and sports with specific discussion of acute and chronic medical problems that can affect athletic performance. Medical conditions that are emphasized include asthma, diabetes, cardiac abnormalities, and viral diseases. In addition, this course covers dermatological conditions encountered in sport.

**Prerequisite(s):** ANAT 4000; PPY 2540**MAT 5900 - AT Field Experience****Credit(s): 2 Credits**

This is an internship with the athletic training staff of an outside agency affiliated with the program. Documentation will be kept in a portfolio format.

**MAT 5930 - Special Topics****Credit(s): 3 Credits (Repeatable for credit)****MAT 5980 - Independent Study****Credit(s): 1-3 Credits (Repeatable for credit)****MAT 6010 - Contemporary Clinical Practice****Credit(s): 1 Credit**

This course is designed to address contemporary issues in the clinical practice of athletic training with particular attention to the management of sudden illness and trauma situations. (Offered each Fall)

**Prerequisite(s):** MAT 5250**MAT 6160 - Enhancing Human Performance****Credit(s): 2-3 Credits**

This course is designed for students to use knowledge of anatomy, physiology, kinesiology, and coaching techniques in designing strength and conditioning programs for athletes. Consideration will be given to strategies for improving sports-specific agility, speed, power, strength, and cardiovascular/respiratory fitness.

**MAT 6700 - AT Clinical Practicum III****Credit(s): 4 Credits (Repeatable for credit)**

This is the third clinical course for the athletic training student.

Expanding on their prior experience, students will be assigned for the semester as a senior student athletic trainer for one of the intercollegiate teams, and will also have additional training room coverage hours.

Through the mentoring of the ACI and these expanded responsibilities, the student is expected to show development of the communication, time management and organizational skills necessary to succeed in a high volume athletic training setting. With an emphasis on problem solving and critical thinking skill development, the student will be expected to take a more active role when providing athletic health care to the injured athletes.

**MAT 6750 - AT Clinical Practicum IV****Credit(s): 4 Credits (Repeatable for credit)**

In this final clinical experience, students will be assigned to an athletic training site for the semester under supervision and instruction from an ACI. The fieldwork will emphasize greater involvement in the day-to-day organization and administrative tasks and professional development and responsibilities.

**MAT 6800 - Seminar in Athletic Training****Credit(s): 3 Credits**

In this course, students will fine-tune their clinical skills in preparation for the NATA certification examination. Advanced topics in Athletic Training will be presented by a variety of health care providers.

**MAT 6930 - Special Topics****Credit(s): 3 Credits (Repeatable for credit)****MAT 6960 - AT Capstone Project****Credit(s): 2 Credits**

In this capstone course in the final semester, the student will select a study a topic in athletic training. Each student selects a faculty advisor to provide guidance in planning, coordinating, conducting and presenting the project. The study can take several different forms including a literature review, a mentored research project with a faculty member, or a community service project in athletic training.

**MAT 6980 - Independent Study****Credit(s): 1 or 3 Credits (Repeatable for credit)**