

## **AT Athletic Training**

### **AT 500 INTEGRATIVE CARE FOR HEALTH SCIENCES. (1-3)**

Integrative care involves using the best possible treatments from both complementary/alternative and allopathic medicine, based on the patient's individual needs and condition. The selection of health care providers should be based on good science and this course will introduce students to complementary and alternative health care providers and the practices and beliefs of these practices as well as the scientific evidence in support of these practices. The course integrates successes from both worlds and describe the safest, least invasive, most cost-effective approach while incorporating a holistic understanding of the individual. May be repeated to a maximum of 3 credits (1 credit didactic and up to two credits experiential/research). (Same as HS 500, CLS 500, CNU 500, CD 500, PAS 500, PT 686.)

### **AT 660 DIRECTED STUDY IN ATHLETIC TRAINING. (1-3)**

A specific topic in Athletic Training related to the student's interests is selected for intensive study. Work to be supervised by a graduate faculty member proficient in the area under investigation. May be repeated to a maximum of six credits. Prereq: Graduate standing and consent of instructor.

### **AT 670 SCIENTIFIC INQUIRY IN ATHLETIC TRAINING I. (2)**

An introduction to the research process in athletic training. The importance of pursuing quality research in athletic training will be stressed and the procedures necessary to complete this process will be presented. May be repeated to a maximum of 8 credits. Prereq: Graduate standing and consent of the instructor.

### **AT 671 SCIENTIFIC INQUIRY IN ATHLETIC TRAINING II. (2)**

The second course of a four part series that will develop skills and a knowledge base that will aid the student while conducting and critically reviewing research in athletic training. Course work will address the methodological procedures of designing and pursuing research in athletic training. The importance of pursuing quality research will be stressed and the procedures necessary to complete this process will be presented. Prereq: Graduate standing and consent of instructor.

### **AT 672 SCIENTIFIC INQUIRY IN ATHLETIC TRAINING III. (2)**

The third course of a four part series that will develop skills and a knowledge base that will aid the student while conducting and critically reviewing research in athletic training. Course work will address the design of research and synthesis of data in athletic training. The importance of pursuing quality research will be stressed and the procedures necessary to complete this process will be presented. Prereq: Graduate standing and consent of instructor.

### **AT 673 SCIENTIFIC INQUIRY IN ATHLETIC TRAINING IV. (2)**

The final course of a four part series that will develop skills and a knowledge base that will aid the student while conducting and critically reviewing research in athletic training. Course work will focus on developing the skills needed to critically synthesize material with accepted practice, and

prepare professional presentations using acquired data and an appropriate statistical analysis. The importance of pursuing quality research will be stressed and the procedures necessary to complete this process will be presented. Prereq: Graduate standing, and consent of instructor.

#### AT 680 SPECIAL TOPICS IN ATHLETIC TRAINING:

(Subtitle required). (1-3)

Study of emerging topics of current high interest in athletic training. May be repeated to a maximum of 9 credits. Prereq: Graduate standing and consent of instructor.

#### AT 685 PRINCIPLES AND APPLICATION OF KINESIOLOGICAL EMG.

(3)

To introduce the student to the principles and application of kinesiological electromyography (EMG). Kinesiological EMG research incorporates the study of human movement with direct assessment of the muscles involved with human motion. The primary aim for this course is to provide the student with background and practical knowledge of kinesiological EMG in order to be able to perform and critically analyze kinesiological EMG studies. Students will enhance their understanding of neuromuscular properties of skeletal musculature. Students will be exposed to the common procedures used to collect, analyze, and interpret both surface and indwelling kinesiological EMG research. Prereq: KHP 615 or comparable graduate level biomechanics course, the course can be taken concurrently. Approval of instructor.

#### AT 690 ORTHOPAEDIC EVALUATION AND REHABILITATION OF THE UPPER EXTREMITY.

(4)

Current evaluation and rehabilitation of upper extremity and upper spine injuries that commonly occur in athletic, recreational or occupational activities. A combination of lecture, laboratory techniques will be used to review current practice and interventions. Prereq: Graduate standing and consent of instructor.

#### #AT 692 ORTHOPAEDIC EVALUATION OF THE SPINE.

(3)

This is an advanced athletic training course encompassing a regional study of orthopedic evaluation, assessment, management, and rehabilitation of the cervical, thoracic, and lumbar spine. A combination of discussion, lecture, and critical review of literature, laboratory, and student presentations will be employed.

#### AT 695 ORTHOPAEDIC EVALUATION AND REHABILITATION OF THE LOWER EXTREMITY.

(4)

Current evaluation and rehabilitation of lower extremity and lumbar spine injuries that commonly occur in athletic, recreational or occupational activities. A combination of lecture, laboratory and student presentation and written reviews of current practice and interventions will be employed. Prereq: Graduate standing and consent of instructor.

#### #AT 700 MUSCLE MECHANICS.

(3)

This is an advanced athletic training course encompassing a wide range of topics related to all aspects of skeletal muscle form and function. The primary focus of this course will be on the

mechanical properties of skeletal muscle, and translational aspects of basic science research and clinical care.