

# SMD: SPORTS MEDICINE

*College of Health Sciences*

## Courses

### **SMD 500. Human Cadaver Anatomy. 2 Credits.**

This lecture course will allow students to develop an understanding of normal human anatomy and common variants. Lectures will cover the systematic and developmental anatomy of the human body. Medical and surgical case studies will be utilized to provide a clinical context to anatomic structures and functions.

Pre / Co requisites: SMD 500 requires a corequisite of SMD 501.

Distance education offering may be available.

Typically offered in Fall, Spring & Summer.

### **SMD 501. Human Cadaver Dissection. 4 Credits.**

This laboratory course will allow students to identify normal human anatomic structures and common variants. Students will collaborate in small groups to perform regional human cadaver dissections and will utilize medical images and clinical cases to supplement and provide clinical context to anatomic structures and function.

Pre / Co requisites: SMD 501 requires a corequisite of SMD 500.

Typically offered in Fall, Spring & Summer.

### **SMD 502. Prevention & Care of Injury and Illness. 3 Credits.**

This course builds upon students' existing knowledge of basic life support and first aid, providing an avenue for practice and discussion of advanced first aid techniques and management of sport-related medical emergencies. The course also takes an evidence based approach to common athletic injuries, principles of injury prevention, and the application of taping and bracing techniques used in athletic training.

Pre / Co requisites: SMD 502 requires current CPR for the professional rescuer certification.

Distance education offering may be available.

Typically offered in Summer.

### **SMD 505. Evidence Based Practice in Sports Medicine. 3 Credits.**

The purpose of this course is to expose students to evidence based practice (EBP) and demonstrate the impact it has on clinical practice in the profession of athletic training and other allied health care professions. Students will be given all the necessary background information on EBP research design, tools to critically appraise, and will be equipped to perform an original EBP design or an analysis of consolidated EBP research. This course is designed to provide students with a greater understanding of how to prudently interpret research results as it pertains to influencing change in clinical practice.

Pre / Co requisites: SMD 505 requires prerequisite MAT 121 or equivalent.

### **SMD 510. Therapeutic Agents. 3 Credits.**

Therapeutic agents used in athletic training are presented with regards to physiological effects, physics, indications/contraindications as well as the evidence based practice for appropriate agent selection.

Pre / Co requisites: SMD 510 requires prerequisite or co-requisite of SMD 502.

Typically offered in Spring.

### **SMD 511. Principles of Rehabilitation. 3 Credits.**

Principles, objectives, indications, contraindications, and progression of various exercise programs used in the rehabilitation of orthopedic injuries are presented.

Pre / Co requisites: SMD 511 requires co-requisite of SML 511.

Typically offered in Fall.

### **SMD 512. Orthopedic Assessment 1. 3 Credits.**

A comprehensive approach to the assessment and diagnosis of lower extremity and shoulder musculoskeletal injuries including the identification of risk factors, the role of clinical outcome measures, and appropriate referral decisions.

Typically offered in Summer.

### **SMD 513. Orthopedic Assessment 2. 3 Credits.**

A comprehensive approach to the assessment and diagnosis of the spine, thorax, upper extremity musculoskeletal and head injuries including the identification of risk factors, the role of clinical outcome measures, and appropriate referral decisions.

Pre / Co requisites: SMD 513 requires prerequisite of SMD 512.

Typically offered in Fall.

### **SMD 514. General Medical Conditions and Pharmacology in Athletic Training. 3 Credits.**

A presentation of the pathology, pharmacology, and management strategies relevant to sports medicine. Emphasis will be on non orthopaedic conditions commonly encountered in a physically active population.

Typically offered in Spring.

### **SMD 515. Athletic Training Clinical Experience 1. 3 Credits.**

Clinical experience is provided in sports medicine settings. The student will have the opportunity to implement athletic training knowledges, skills and abilities while developing clinical reasoning and critical thinking in the delivery of health care. Emphasis with equipment intensive sports.

Pre / Co requisites: SMD 515 requires prerequisites of SMD 502 and SMD 512.

Typically offered in Fall.

### **SMD 516. Athletic Training Clinical Experience 2. 3 Credits.**

Clinical experience is provided in sports medicine settings. The student will have the opportunity to implement athletic training knowledges, skills and abilities while developing clinical reasoning and critical thinking in the delivery of health care. Emphasis with adolescent and special populations.

Pre / Co requisites: SMD 516 requires a prerequisite of SMD 515.

Typically offered in Spring.

### **SMD 530. Organization and Administration of Athletic Training. 3 Credits.**

An overview of administrative and organizational concepts that relate to health care entities that provides athletic training services. Focuses on issues in athletic training including facility design, fiscal management, insurance, medical, ethical and legal issues. Discusses current issues related to professional conduct and practice.

Pre / Co requisites: SMD 530 requires prerequisite of SMD 515.

Typically offered in Fall.

### **SMD 540. Athletic Training Practice Analysis. 3 Credits.**

An in-depth study of selected topics as it relates to the practice analysis of athletic trainers. The course will examine current topics through the reading and critical analysis of literature related to athletic training using professional journals and practical experiences.

Pre / Co requisites: SMD 540 requires prerequisites of SMD 514 and SMD 516.

Distance education offering may be available.

Typically offered in Fall & Spring.

### **SMD 582. Modern Principles Of Athletic Training. 3 Credits.**

A course for the physical educator and/or coach. Injuries which occur in class, practice, and game situations; preventative taping and wrapping; immediate first aid procedures, professional relations within the medical profession.

### **SMD 592. Seminar in Sports Medicine. 3 Credits.**

This class will require students to review and research papers on specific and timely topics in sports medicine. Papers will be read prior to class, presented by students in class and then critically reviewed by the instructor and students. The suggested topics will be subject to change if additional topics are viewed by the instructors as being more current and important issues related to athletic training and sports medicine.

Repeatable for Credit.

### **SMD 616. Athletic Training Clinical Experience 3. 3 Credits.**

Clinical experience is provided in sports medicine settings. The student will have the opportunity to implement athletic training knowledges, skills and abilities while developing clinical reasoning and critical thinking in the delivery of health care. Emphasis with non-traditional seasons or settings.

Pre / Co requisites: SMD 616 requires prerequisite of SMD 516.

Typically offered in Summer.

### **SMD 617. Athletic Training Clinical Experience 4. 4 Credits.**

Clinical experience is provided in sports medicine settings. The student will have the opportunity to implement athletic training knowledges, skills and abilities while developing clinical reasoning and critical thinking in the delivery of health care and advanced clinical skills.

Pre / Co requisites: SMD 617 requires prerequisite of SMD 616.

Typically offered in Fall.

**SMD 618. Athletic Training Clinical Experience 5. 4 Credits.**

Clinical experience is provided in sports medicine settings. The student will have the opportunity to implement athletic training knowledges, skills and abilities while developing clinical reasoning and critical thinking in the delivery of health care and advanced clinical skills.

Pre / Co requisites: SMD 618 requires prerequisite of SMD 617.

Typically offered in Spring.

**SMD 630. Research Methods and Biostatistics for Athletic Training. 3 Credits.**

An overview of scientific methods, research designs, sampling, and survey techniques pertinent to study of the field of athletic training will be presented. Specifically, the course prepares you to read, understand, and evaluate research; retrieve research; and develop research-related skills for further graduate education. This course will also focus on the application of statistical methods to different athletic training related research designs, and data with different scales of measurement. Students will display and summarize data and also apply and interpret different statistical tests. Students will be able to complete all statistical tasks using SPSS. Methodology, data interpretation and professional write-up is emphasized. Typically offered in Fall.

**SMD 640. Injury Risk and Prevention Strategies. 3 Credits.**

The purpose of this course is to expose students to injury prevention programs and research, including topics such as concussion, overuse, upper and lower extremity, and heat injuries as well as the female athlete triad. Injury prevention research discussed relates to the athletic as well as other special populations, such as athletes with an injury history, military population, and females. Students will be equipped to clinically integrate injury prevention programs, including educating the athlete, coaches, and other allied health professionals. This course is designed to provide students with a greater understanding of how to select injury prevention programs as it pertains to influencing change in clinical practice. Typically offered in Summer.

**SMD 654. Sport Physiology in Various Populations and Environments. 3 Credits.**

This course will cover the advanced physiology of all major body systems during participation in sport and exercise with special attention to different populations such as body size, gender and age. The physiology of how the body reacts and adapts to exercise in different environmental conditions will be covered with special attention different populations. Typically offered in Fall.

**SMD 693. Selected Topics in Sports Medicine. 3 Credits.**

A second year graduate course covering environmental topics, theory and practice of evidence-based sports medicine, educational and course assessment concerns for sports medicine professionals.

Repeatable for Credit.

**SMD 698. Research I. 3 Credits.**

This course is intended to guide graduate students through the stages of writing their graduate theses OR research project. This course will involve: the selection of a topic and the conceptualization of the research project, the drafting of the first sections of the paper to include the literature review (proper writing style and format), selecting the appropriate research methods based on the type of hypotheses/research questions posed, and submission and approval of proposed project to research advisor and thesis committee (thesis only).

Consent: Permission of the Department required to add.

Typically offered in Fall.

**SMD 699. Research II. 3 Credits.**

This course is intended to guide graduate students through the final stages of the completion and writing of their graduate theses OR research project. Topics include: obtaining IRB approval (if necessary), data collection, data analysis, writing results, writing remaining sections (ex. discussion, limitations, future directions), finalizing final manuscript OR report including references, oral defense with thesis committee (thesis only), and final formatting for publication if requested by research advisor.

Pre / Co requisites: SMD 699 requires a prerequisite of SMD 698.

Consent: Permission of the Department required to add.

Typically offered in Spring.