

Sports Medicine Course Description

This course provides instruction in topics related to the field of Sports Medicine. These topics include; prevention, treatment, taping and rehabilitation of athletic injuries, anatomy, cell and tissue structure and response to injury, body systems, exercise physiology, therapeutic modalities, therapeutic exercise, pharmacology, nutrition, and kinesiology. This rigorous academic course requires a high level of independent study. Training is divided into academic coursework and hands-on clinical experience. Qualified students may participate in job shadowing and/or an internship in a related field such as, Exercise Physiology, Biomechanics, Sports Psychology, Sports Nutrition, Strength and Conditioning, Personal Fitness Training, Practice of Medicine, Athletic Training, Sports Physical Therapy, Sports Massage Therapy, Sports Dentistry, Osteopathic Medicine, Orthotics/ Prosthetics, Sports Chiropractic, Sports Podiatry, Emergency Medical Technician.

Chp. 1, 2 Professional Development and Responsibilities

In this unit students learn:

1. Health Care Organization and Administration in Athletic Training
 - Issues Specific to Athletic Training
 - Computers and Tablets as Tools for the Athletic Trainer
 - Collecting Injury Data
2. Legal Concerns and Insurance Issues
 - Legal Concerns for the Athletic Trainer
 - Insurance Considerations
 - Third-Party Reimbursement

Assignment: Students will design their ideal clinic in the profession of their choice. This will allow students to research and design the items necessary to create a successful work place. Students will learn the necessary supplies needed to operate a clinic.

Chp. 4 Fitness and Conditioning

In this unit students learn:

1. Fitness and Conditioning
 - Conditioning Principles
 - Warm Up and Cool Down
 - Cardio Endurance
 - Importance of Muscular Strength, Endurance, and Power
 - Improve/ Maintain Flexibility
 - Fitness Assessment
 - Periodization in Conditioning

Assignment: Students will be able to create a fitness and conditioning program for a sports team of their choice. They will include a warm up and cool down routine and either a muscular strength, muscular endurance, or

muscular power program. Students will learn how to design and implement fitness and conditioning programs for athletes.

Chp. 5 Nutrition

In this unit students learn:

1. Nutrition

- Nutrition Basics
- Energy Source
- Regulator Nutrients
- Nutrient Requirements and Recommendations
- Dietary Supplements
- Eating and Drinking Practices
- Body Composition and Weight Control

Assignment: Students design a nutrition plan for a sport. This must include general eating guidelines & tips as well as specific pre-warm up and pre-game meals. Students will create a handout and present the nutrition plan to the team of their choice.

Assignment: Students will monitor their nutrition for one week by keeping a food log. They will then break down the macronutrients, including calories, for each day. Finally, they will be able to reflect on areas of improvement to implement into their personal diets. Students will learn about optimal diets and areas of improvements in their own lives.

Chp. 7, 8 Prevention/ Protective Equipment

In this unit students learn:

1. Taping

- Wrapping
- Nonelastic and Elastic Adhesive Taping
- Common Taping Procedures
- Kinesio Taping

2. Protective Equipment

- Head Protection
- Face Protection
- Neck Protection
- Trunk and Thorax Protection
- Lower-Extremity Protective Equipment
- Elbow Wrist, and Hand Protection
- Construction of Protective and Supportive Devices

Assignment: Students will be given a scenario with an injured athlete. Students will then have the opportunity to be creative and choose a taping method and/or protective equipment to provide the athlete with. Students will learn different taping methods and the use of protective equipment for each section of the body.

Chp. 9, 10 Pathology of Sports Injury

In this unit students learn:

1. Pathologies
 - Mechanical Injuries
 - Musculotendinous Unit Injuries
 - Synovial Joint Injuries
 - Bone Injuries
 - Nerve Trauma
 - Body Mechanics and Injury Susceptibility
2. Phases of Healing
 - The Healing Process
 - Soft Tissue Healing
 - Bone Healing
 - Pain

Assignment: Students will create a PowerPoint presentation of an experience they have had with a specific pathology using the appropriate medical terminology. Students will have to list the mechanism of injury, the pathology, and the recovery time. Students will learn about specific pathologies.

Chp. 11-17 Management Skills

Psychosocial intervention for sports injuries

On-the-field acute care and emergency procedures

Off-the-field injury eval

Infectious diseases

Therapeutic modalities

Pharmacology, drugs

Chp. 18-28 Various Conditions

In this unit students learn:

1. Musculoskeletal Conditions
 - Foot
 - Ankle and Lower Leg
 - Knee

- Thigh, Hip, Groin, Pelvis
- Shoulder
- Elbow
- Forearm, Wrist, Hand, and Fingers
- Spine

2. General Medical Conditions

- Head, Face, Eyes, Ears, Nose, and Throat
- Thorax and Abdomen
- Skin Disorders
- General Conditions

Assignment: Students will be put into groups or partners and use stickers to identify anatomy structures on one another. This will allow students to locate different parts of anatomy in a practical setting. Students will learn the anatomy specific to each section of the body.

Pharmacology

2. Pharmacology, Drugs, and Sports

- Drug Basics
- Pharmacokinetics
- Legal Concerns in Administering versus Dispensing Drugs
- Selected Therapeutic Drugs
- Substance Abuse Among Athletes
- Drug Testing in Athletes

Currently, students are required to shadow our school's ATC; Reid Gantley. Students take notes on everything they see him do- evaluate, assess, taping, tests, etc.

Class goals: Community Classroom

During the second semester students will be placed at internships. They will be required to report to their sites Tuesday through Friday, where students will have the opportunity to learn through their community classrooms (internships). Students will be placed at sites in a career they are interested in, these sites will vary from physical therapy clinics, athletic training clinics, strength and conditioning facilities, orthopedic clinics, or hospitals. This will ensure that students are able to learn through hands on experience.

Assignment: Through writing students will reflect on their experiences and challenges at their workplace. Students will be able to work through issues by collaborating with peers and through open discussions.