Spring 2018

KINES 20
Athletic Training
Syllabus

RC Course	Section #	Units	Instructor	Schedule	Days	Hours	Room #
KINES 20	70059	4	K. Kauk	Jan 8 - May 18	M-F	9:00 a.m. - 9:50 a.m.	S-8
KINES 20	70060	4	K. Kauk	Jan 8 - May 18	M-F	1:26 p.m. - 2:16 p.m.	S-8
KINES 20	70061	4	K. Kauk	Jan 8 - May 18	M-F	2:21 p.m. - 3:11 p.m.	S-8

Prerequisites: None

Advisory: Eligibility for English 125 and 126

Course Description:
This course is a one-year, lecture-laboratory science elective designed to provide a well-rounded and challenging academic experience for students interested in medicine, physical therapy, exercise science, athletic training, sports medicine, or any other related medical or paramedical field. Throughout the year students participate in a detailed examination of the various anatomical, physiological, and biomechanical factors that influence the "human machine". Specifically, students will be exposed to the following units of study: 1) historical and organizational perspectives of sports medicine; 2) detailed anatomical and biomechanical study of each major body region, 3) physiological response of tissues to various types of stress; 4) specific medical conditions and injuries in sport; 5) scientific principles and techniques of injury prevention, evaluation, treatment, and rehabilitation; and 6) exercise physiology and human performance.

Course Goals and Student Learning Outcomes:
Upon completion of this course, students will be able to:
- Identify basic terminology which applies to athletic injuries.
- Apply basic knowledge and terminology of anatomy and kinesiology as it pertains to the mechanisms of athletic injuries.
- Describe the basic skills needed to care for athletic injuries relative to: prevention, recognition, evaluation, treatment, and first aid
- Demonstrate basic phases of protective taping techniques needed to care for athletic injuries.

Objectives:
In the process of completing this course, students will:
- Assess initial athletic injuries and apply appropriate first-aid treatment
- Re-assess athletic injuries treatment
- Relate human anatomy to mechanism of injury to refine injury evaluation

Required or Recommended Textbooks and Materials:
Required Text:

Principles of Athletic Training: A Competency-Based Approach (Prentice, 15th ed., 2014)

Tentative Schedule:

Intro to Sports Med (1 week) (Ch. 1-3)
- Historical Overview of Sports Medicine
- Current Trends / Career Opportunities
- Organizational and Legal Concerns in Sports Medicine
- Preventive Taping and Bandaging Techniques (on-going throughout the year) (Ch. 7- 8)
- **Project**: Design an Athletic Training Facility / Training Room

Emergency Procedures and Medical Considerations in Sports Medicine (3 weeks) (Ch. 6, 14, 17, and 29)

- Emergency Procedures
  - **LAB**: Vital Signs Assessment
  - **Project**: Emergency Procedure Educational Presentation (Small Group)
- Substance Abuse
- Selected Medical Conditions in Sport
- Blood-borne and air-borne pathogens

Classification / Mechanisms of Injuries (3 weeks) (Ch. 9)
- Tissues: tissue types and normal versus pathological situations
- Mechanical forces that injure human tissue
  - tension, compression, torsion, and shearing forces
- Classifications of injuries
  - acute versus chronic
  - exposed versus unexposed
  - soft tissue versus skeletal tissue
    - -sprains, strains, contusion, inflammations, fractures, and dislocations
  - **Research Project**: Injury Classification and Care Guide (Google Doc group project)

Tissue Healing and Inflammation (2 weeks) (Ch. 10)
- Physiological events of inflammation
  - acute inflammation versus chronic inflammation
- Tissue healing, repair, and regeneration
  - soft tissue versus bone tissue

Therapeutic Modalities and Rehabilitation (3 weeks) (Ch. 15-17)
- Physiological response of tissue to various modalities/therapy
  - methods of heat transfer…conduction, convection, and conversion
  - **LAB**: Cold therapies versus Heat therapies
- Pharmacology in Sports Medicine
- Categories of therapeutic exercise
  - open kinetic chain versus closed kinetic chain exercises
  - passive, active, assistive, and resistive exercises
  - **LAB**: Closed Kinetic Chain versus Open Kinetic Chain exercises
- **Student Presentations**: Therapeutic Modality Poster Presentation

Injury Assessment (1 week…on-going throughout course) (Ch. 12-13)
- HOPS protocol
  - History…techniques for obtaining a detailed medical history for any injury
  - Observation…techniques for visually inspecting injured tissue / structures
  - Palpation…determining the status/integrity of underlying anatomical structures
  - Special Tests…techniques for determining the status/integrity of anatomical components
- **Lab**: Range of Motion (ROM) Assessment via Goniometry

Foot/Ankle/Lower Leg (3 weeks) (Ch. 18-19)
- Anatomy…muscular, skeletal, ligamentous, neurological, and vascular components
  - normal versus pathological situations
- Biomechanics…normal and abnormal
- **Lab**: ROM and Functional Assessment
- Region specific injury etiology, prevention, evaluation, treatment, and rehabilitation

Knee/Thigh (3 weeks) (Ch. 20-21)
- Anatomy…muscular, skeletal, ligamentous, neurological, and vascular components
  - normal versus pathological situations
- Biomechanics…normal and abnormal
- **Lab**: ROM and Functional Assessment
- Region specific injury etiology, prevention, evaluation, treatment, and rehabilitation

Hip/Pelvis (2 weeks) (Ch. 21)
- Anatomy…muscular, skeletal, ligamentous, neurological, and vascular components
  - normal versus pathological situations
- Biomechanics…normal and abnormal
- Region specific injury etiology, prevention, evaluation, treatment, and rehabilitation

Shoulder/Upper Arm (3 weeks) (Ch. 22)
- Anatomy…muscular, skeletal, ligamentous, neurological, and vascular components
  - normal versus pathological situations
- Biomechanics…normal and abnormal
- Region specific injury etiology, prevention, evaluation, treatment, and rehabilitation

Elbow/Wrist/Hand (3 weeks) (Ch. 23-24)
- Anatomy…muscular, skeletal, ligamentous, neurological, and vascular components
  - normal versus pathological situations
- Biomechanics…normal and abnormal
- Region specific injury etiology, prevention, evaluation, treatment, and rehabilitation

Head/Spine (3 weeks) (Ch. 25-26)
- Anatomy…muscular, skeletal, ligamentous, neurological, and vascular components
  - normal versus pathological situations
- Biomechanics…normal and abnormal
- Region specific injury etiology, prevention, evaluation, treatment, and rehabilitation

Thorax/Abdomen (2 weeks) (Ch. 27)
- Anatomy…muscular, skeletal, ligamentous, neurological, and vascular components
  - location, structure, and function of the internal organs
  - normal versus pathological situations
- Biomechanics…normal and abnormal
- Region specific injury etiology, prevention, evaluation, treatment, and rehabilitation

Human Performance/Exercise Science (4 weeks) (Ch. 4-5)
- Effects of physical stress on the systems / tissues of the body
- Scientific principles of exercise / conditioning
  - identifiable adaptations made by the tissues of the body
  - SAID and Overload Principles
- Muscle tissue
  - structure and function
  - physiology of muscle tissue contraction
  - structure and function of the sarcomere
  - biochemistry of muscle contraction
- Muscle fiber types
  - **Lab**: Muscle fiber ratio determination / prediction
- Somatotypes / body composition
  - **Lab**: Determination of Body Density and Body Fat Percentage

- Components of an effective conditioning program
  - **Lab**: Physical Fitness Assessment
  - **Project**: Design/develop a science-based, well-rounded conditioning program
  - muscular strength, endurance, and power
  - aerobic capacity
    - **LAB**: Lung Capacity Determination via Spirometry
  - flexibility
  - agility and proprioception

Grading Policy (Quality Performance Scale):

Grading Categories	60% = Tests / Quizzes 40% = Homework-Labs-Participation-Study Skills
Letter Grade Determination	A = 90% or more of total points B = 80% - 89% of total points C = 70% - 79% of total points D = 60% - 69% of total points F = 0% - 59% of total points

Assessment and Evaluation:
Students will be assigned regularly scheduled homework assignments, have quizzes on a regular basis, and be tested on each unit of study. The final exam is a written comprehensive test with possible demonstration and/or practical components. Throughout the semester, students will be evaluated on the basis of their performance on quizzes (announced and unannounced), written assignments, unit tests, lab projects and final examination according to the following scale. The instructor reserves the right to adjust scores as it may be required throughout the semester. Late homework assignments will be penalized 50% of earned value for each calendar day that it is late, with a potential earned value of 10% after 4days late.

Attendance

Lecture: Attendance is required and roll will be taken at each class meeting. There is no difference between an "excused" or "unexcused" absence. A "tardy" is considered an absence unless the student contacts the instructor at the end of class to change the status from absent to tardy. Two tardies will count as an absence. Any student who misses more than two weeks of class meetings within the first 9 weeks of class may be dropped from the class by the instructor (i.e., class meets two times per week, 4 absences; class meets 1 time per week, 2 absences).

Lab: Attendance in all labs is mandatory. Students must make prior arrangements with the instructor to be excused from lab. At that time, the instructor will determine, if any, make-up work will be appropriate.

Quizzes: There will be no make-ups for quizzes.

Tests: Make-up tests are limited to students who have made arrangements with the instructor prior to the required testing period or those students who have been excused by High School Attendance Office. Test material is constructed from class discussions, assigned readings, guest lectures, video presentations, and special assignments. Tests will consist of true/false and multiple choice questions. Unless the student receives prior approval from the instructor, no make-up tests will be allowed.

College Policies:

Cheating & Plagiarism
In keeping with the philosophy that students are entitled to the best education available, and in compliance with Board Policy 5410, each student is expected to exert an entirely honest effort toward attaining an education. Violations of this policy will result in disqualification for the course.
Cheating is:

A. Copying someone else's class work or letting someone copy you, when your teacher tells you that the work is to be done on your own (includes asking/telling orally).
B. Copying answers on a test or letting someone copy from your test (includes asking/telling orally).
C. Using a cheat sheet or unauthorized notes.
D. Turning in someone else's work as your own.
E. Text messaging and multi-media messaging.

Consequences, Per School Year:
1st Offense - The teacher shall send a referral to office. Student shall receive an "F" or zero on the work or the test and a one (1) day suspension or Saturday School, parent contact required.
2nd Offense - The teacher shall send a referral to the office. The student shall receive an "F" or zero on the work or the test and a one (1) day suspension with parent contact required. Student placed on honesty contract. A high school student shall be removed to a study hall/or alternative class with a "W/F" for the semester.
3rd Offense - Recommendation for transfer.

Instances of cheating need not be confined to one (1) class. Each of the three (3) offenses could happen in a different class. Any student who is transferred to a study hall/or alternative class and then required disciplinary removal from the study hall/or alternative class shall be transferred to an alternative school site/program.

Each student is expected to assist in the overall environment of the classroom making it conducive to learning.

Accommodations for Students with Disabilities
If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact the instructor as soon as possible.

Work Ethic - Most students are enrolled in college classes to obtain a quality job or to enhance their skills for advancement with their current employment situation. Employers look for a punctual, responsible individual who is prepared to go to work. Our goal is to replicate the workplace environment where a student can develop and demonstrate these desirable traits.

- Punctual: It is customary to arrive at least 5 minutes before work begins. Individuals will be terminated if they are not punctual.
- Responsible: It is expected than an employee work every scheduled work day. Individuals will be terminated if they are not responsible.
- Prepared: It is expected that an employee be prepared with he/she arrives for work. Students must have work shirts, safety glasses, and appropriate footwear to participate in the laboratory. If a student is not prepared, he/she cannot participate and will receive a zero (see "responsible").

Language - English is expected to be spoken in class for the following reasons:
- All course content and materials are presented in English and class discussions all take place in English.
- All lab activities are conducted in groups and must have effective communication between all group members.
- Activities can be hazardous and it is vital that instructors receive feedback in English to ensure safe practices.
- This policy is designed so that instructors and all students may communicate in a common language.
- All individuals must have freedom of expression and are allowed and encouraged to communicate in the language of their choice outside of class times, including breaks.

Behavioral Standards
- Each student is responsible for his/her own work. Written assignments are not group assignments and no credit will be awarded for students who turn in the same work. Students suspected of cheating on tests and quizzes will receive no credit for that particular assignment and may be removed from the class.
- It is considered polite to turn off cell phones when in the classroom or shop. Please do so.
- There is no smoking, chewing tobacco, alcohol, or drugs allowed in classrooms, shops, or school vehicles.
- This class is set for the semester. All doctor's appointments, interviews, meetings with counselor, and other types of appointments should be scheduled during your time outside of class.

Important Dates Spring 2018
- January 8 Start of Spring 2018 semester
- January 8 -March 9 Short-term classes, first nine weeks
- January 15 Martin Luther King, Jr. Day observed (college campus closed)
- January 26 Last day to register for a Spring 2018 full-term class in person

- January 26 Last day to drop a Spring 2018 full-term class to avoid a "W"
- February 16 Lincoln Day observance (college campus closed)
- February 19 Washington Day observance (college campus closed)
- March 9 Last Day to drop a full-term class (letter grades assigned after this date)
- March 12 - May 18 Short-term classes, second nine weeks
- March 26 - 29 Spring recess (college campus open)
- March 30 Good Friday observance (college campus closed)
- May 14-18 Spring 2018 final exams week
- May 18 End of Spring 2018 semester/commencement

** Withdrawal (W): A student will be assigned a grade of "W" for classes dropped on or after 20 percent of the duration of the class, up to and including 50 percent of the duration of the class. After the 50 percent point, the student must receive a letter grade other than a "W" (i.e., A, B, C, D, F, I, P, NP). Check with your instructor for the deadline applicable to your class.