I. **OVERVIEW**

The following information will appear in the 2009-2010 catalog

**PE 111 Application of Sports Medicine** 3 Units

Practical application of modalities and techniques used in the treatment and care of athletic injuries for the prospective Athletic Trainer. Emphasis on injury recognition, development of conditioning and reconditioning programs and taping techniques to enable athletes to return to competitive activities.

**Prerequisite:** Satisfactory completion of PE 108.

Field trips are not required. **Units/Hours:** 3.00 Units: Lecture - 54.00 hours

**Grading:** A-F or P/NP - Student choice **Transfer:** CSU, UC

II. **LEARNING CONTEXT**

Given the following learning context, the student who satisfactorily completes this course should be able to achieve the goals specified in Section III, Desired Learning:

A. **COURSE CONTENT**

1. **Required Content:**

   a. Evaluation techniques
      i. History
      ii. Inspection
      iii. Palpation

   b. Range of motion tests
      i. Active tests
      ii. Passive tests
      iii. Resisted tests

   c. Muscular strength quality
      i. Break test

   d. Ligamentous tests
      i. Non-contractable tissue
      ii. Grading system for ligamentous laxity

   e. Special tests
      i. Impingement tests
ii. Meniscal tests
iii. Bilateral tests
iv. Neurological tests

f. Clinical evaluations
g. On-field evaluations
   i. Mechanism of injuries

h. Applied forces
   i. Biomechanics
   ii. Pathomechanics

i. Pathology
   i. Physiological end-feels
   ii. Pathological end-feels
   iii. Macrotrauma vs. microtrauma

j. Resulting damage
   i. Baseline measurements

k. Initial care
   i. Bony related injuries
   ii. Soft tissue related injuries

l. Muscle grading system

m. Life threatening conditions
   i. Heart rate
   ii. Breathing rate
   iii. Unique injuries

n. Strength training
   i. Isometric training
   ii. Isotonic training
   iii. Concentric training
   iv. Eccentric training
   v. Proprioceptive neuromuscular facilitation
vi. Appropriate body positioning
vii. Upper body strengthening program

o. Pitcher's program
p. Stretching techniques
   i. Static
   ii. Ballistic
   iii. Contract-relax

q. National Athletic Trainer's Association
   i. Required competencies testing

B. **ENROLLMENT RESTRICTIONS**

1. **Prerequisites**
   Satisfactory completion of PE 108.

2. **Requisite Skills**
   *Before entering the course, the student will be able to:*
   a. Evaluate common athletic injuries.
   b. Demonstrate a basic understanding of the mechanisms of injury of common athletic injuries.
   c. Identify and understand sports medicine terminology.
   d. Identify and perform rehabilitation techniques.
   e. Demonstrate an appropriate and ethical approach to assessment of injured athletes.
   f. Recognize techniques and perform skills necessary to aid in the prevention of athletic injuries.

C. **HOURS AND UNITS**

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<th>INST METHOD</th>
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D. **METHODS OF INSTRUCTION (TYPICAL)**
   *Instructors of the course might conduct the course using the following method:*

1. Lecture
2. Instructor demonstration of skills/techniques
3. Group interaction
4. video demonstration
5. class participation
6. assigned reading

E. ASSIGNMENTS (TYPICAL)

1. EVIDENCE OF APPROPRIATE WORKLOAD FOR COURSE UNITS
   Time spent on coursework in addition to hours of instruction (lecture hours)
   a. Weekly reading assignments relating to lecture material
      i. chapter assignments
      ii. testing information
      iii. anatomical review
   b. Practice assigned competencies in and out of class in preparation for practical exams given throughout the term
      i. ligamentous test
      ii. special tests
      iii. functional tests
   c. Development of notebooks regarding lecture and reading material addressed in class
      i. chapter information
      ii. lecture information
   d. Research and development of plans to address given topics to demonstrate and explain during class participation
      i. presentation preparation
      ii. evaluative tools utilization

2. EVIDENCE OF CRITICAL THINKING
   Assignments require the appropriate level of critical thinking
   a. Develop an evaluation plan based on scenarios given in class: upper body, lower body.
   b. Identify different sports injuries and develop a plan to implement evaluative procedures accordingly based on problem-solving questions.
   c. Use the Internet to supplement information regarding topics covered in class: additional tests, university requirements, pictures.
   d. Contact accredited university sports medicine programs and share information with other students in regards to assigned topics: university programs and prerequisite information.
   e. One-on-one evaluations with the instructor are required in a practical examination based on sports injury scenarios: knee, shoulder.
F. **TEXTS AND OTHER READINGS (TYPICAL)**


III. **DESIRED LEARNING**

A. **COURSE GOAL**

*As a result of satisfactory completion of this course, the student should be prepared to:*

implement testing procedures, based on learned knowledge, to identify the type and severity of specific sports related injuries.

B. **STUDENT LEARNING GOALS**

*Mastery of the following learning goals will enable the student to achieve the overall course goal.*

1. **Required Learning Goals**

*Upon satisfactory completion of this course, the student will be able to:*

a. obtain and evaluate information related to an injury.

b. analyze the mechanism of injury to understand which structures are likely injured.

c. identify and assess possible life-threatening situations during injury care.

d. analyze objective data while comparing the injured limb to the uninjured limb.

e. develop a strengthening program utilizing all of the different strengthening techniques.

f. successfully demonstrate the ability to perform and understand the evaluation procedures following an injury.

g. identify differences between an on-field and a clinical evaluation.

h. perform the range of motion tests and evaluate those findings.

IV. **METHODS OF ASSESSMENT (TYPICAL)**

A. **FORMATIVE ASSESSMENT**

1. Instructor evaluation of skills competency

2. Practical quizzes

3. Scenario based in-class assessments

B. **SUMMATIVE ASSESSMENT**

1. Completion of skills competency

2. Semester research project

3. Participation frequency

4. Research paper