Eastern Illinois University
Revised Course Proposal
PED 3143, Therapeutic Modalities

1. Catalogue Description:
   a. PED 3143
   b. Therapeutic Modalities
   c. 2-4-4
   d. Fall Semester
   e. Ther Modalities
   f. A study of physical principles, physiological effects, indications, contraindications, and standard operating procedures of all therapeutic modalities commonly used in Athletic Training.
   g. PED 2130, PED 2135, PED 2136
   h. Fall, 2004

2. Student Learning Objectives and Evaluation:
   a. Course Objectives: At the end of the course the student will be able to:
      • Demonstrate an in depth understanding of the body's response to trauma with special reference to therapeutic modalities.
      • Demonstrate an understanding of the current pain control theories with special reference to the theoretical rationale for the selection of therapeutic modalities.
      • Demonstrate an understanding of the physiological and biophysical concepts associated with selected thermal, non-thermal and electrical therapeutic modalities with particular emphasis on the theoretical concepts associated with the selection of a particular therapeutic modality
      • Create and design a comprehensive rehabilitation plan including the use of therapeutic modalities and will be able to provide rationale for modality selection.
   b. Methods of assessing students’ achievement of learning objectives
      Labs – 20%
      Written Exams – 25%
      Oral Practical – 25%
      Class Assignments – 10%
      Final Exam – 20%
      TOTAL – 100%
   c. NA
   d. This is not graduate level
   e. Writing active

3. Outline of the Course: (two 50 minute class sessions and 200 minutes of lab each week for 15 weeks)
   Week  Topic
   1      a. Injury rehabilitation
          1. Terminology
          2. Erroneous concepts of rehabilitation
          3. Efficacy of therapeutic modalities in rehabilitation
b. Therapeutic modalities
   1. Terminology
   2. Modality applications
   3. Legal considerations

c. The inflammatory response
   1. Introduction to the inflammatory response
   2. Sports injury model
   3. Edema formation

d. The healing process
   1. Types of repair
   2. Phases of repair

e. Pain Process
   1. Terminology, pain theories
   2. Pain assessment
   3. Neurobiology of pain and pain modulation

f. Basics of electrical stimulation
   1. Definitions
   2. Types of current, electrode placement
   3. Fundamental physiological response to stimulation
   4. Indications, contraindications, warnings and precautions

g. Interferential current therapy (IFC)
   1. Definitions, advantages of IFC therapy
   2. Pain modulation
   3. Indications, contraindications, warnings and precautions

h. Neuromuscular electrical stimulation (NMES)
   1. Basic muscle physiology, definitions
   2. Muscle rehabilitation via NMES
   3. Indications, contraindications, warnings and precautions

i. Ultrasound (US)
   1. Terminology, types of US, generation of US waves
   2. Thermal and non-thermal effects and applications
   3. Indications, contraindications, warnings, and precautions

j. Physiology and physics of cold
   1. Terminology, effects and clinical aspects
   2. Physiological effects and application techniques of cold
   3. Indications, contraindications, warnings and precautions

k. Physiology and physics of heat
   1. Terminology, effects and clinical aspects
   2. Physiological effects and application techniques of heat
   3. Indications, contraindications, warnings and precautions

4. Rationale:
   a. Purpose and need: PED 3143 is a mandatory core course for those Physical Education majors in the Athletic Training Option. Students cannot practice as an Athletic Trainer without the national certification and state licensure.
   b. Justification of the level of the course:
      This course contains advanced content and is intended for students currently admitted into the Athletic Training Education Program. The prerequisites include PED 2130, PED 2135 and PED 2136.
   c. Similarity to existing exercises: PED 2131 is being revised and expanded.
d. Impact on Program: This course would be a required course for students pursuing completion of a Physical Education degree with an option in Athletic Training. Students wishing to obtain certification as an Athletic Trainer must pass this course.

5. Implementation:
   a. Faculty members to whom course will initially be assigned:
      Lee Ann Price, MS ATC/L
   b. No additional cost at this time
   c. Text and supplementary materials:

6. Community college transfer:
   Since this is a CAAHEP accredited curriculum, no community college transfer will be accepted.

7. Date Approved by the Department: September 12, 2003
8. Date Approved by the College or School Curriculum Committee: September 22, 2003
9. Date Approved by CAA: October 30, 2003