

Eastern Illinois University
Department of Kinesiology and Sports Studies

Syllabus
KSS 4340 – Exercise Physiology
Fall 2012

Instructor: Jake Emmett, Ph.D.

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Office Hours: M, W, F 10:00-11:00; T, R 9:00-10:00 or by appointment

Course Description:

This course is designed to provide an in depth study of key physiological systems as they respond to acute and chronic bouts of exercise. (BIO 2001, KSS 1500 and KSS 2440 are prerequisites for this class.)

Objectives:

1. Describe how the neuromuscular system functions to produce muscular force and the factors that influence acute muscular force production.
2. Understand the adaptations from chronic exercise training in regard to muscular hypertrophy, strength, endurance, and power.
3. Describe how anaerobic and aerobic energy production occurs and the factors that limit force production during acute and chronic exercise.
4. Understand how chronic anaerobic and aerobic training impacts energy production.
5. Explain how the major nutrients can affect acute and chronic exercise performance and the dietary practices that can improve exercise performance.
6. Understand the techniques available for measurement of body composition.
7. Explain how exercise contributes to changes in body composition (i.e. weight loss and weight gain).
8. Describe how the cardiopulmonary system functions in supplying oxygen to muscle cells during acute and chronic exercise
9. Understand the limits of oxygen supply and how chronic exercise training and improve oxygen supply.

Course Content:

1. Neuromuscular Function – Chapters 3 and 4
2. Cardiopulmonary Function – Chapters 5 and 6
3. Exercise Metabolism – Chapter 2, 8 and 11
4. Training Principles – Chapters 12 and 13

Text: *Exercise Physiology: Integrating Theory to Application*, by Krammer, Fleck and Deschenes (2011)

Evaluation:

A \leq 90% of total points

B 80-89% of total points

C 70-79% of total points

D 60-69% of total points

F < 60% of total points

Quizzes/ Assignments (5-10 points). Quizzes and assignments will be un-announced and given in class. These can not be made up without an official excuse.

Exams (1-3 worth 50 points). Exams will be made up of short answer questions and be given in class. The final exam (100 points) will be partially comprehensive.

Teaching Tools (15 points.) Design a tool that teaches a concept from the first three sections of class. Tools should be original and can be made by hand (clay, paper, or other materials) or by computer (power point, graphic/draw/paint programs, etc.). Tools will be graded on content/accuracy, creativity, and effectiveness as a teaching tool.

General Course Information:

- Success in this class requires regular and consistent study and thorough review of the material covered in the textbook and in class discussions. It is expected that students come to class prepared to contribute to the class discussion. No extra credit is offered in this class.
- WebCT is incorporated in this class in the following ways; access to Power Point presentations, online exams, online assignments, grade book, announcements, etc. If you have any questions regarding the use of WebCT, please ask the instructor.
- If you have a documented disability and wish to receive academic accommodations, please contact the Coordinator of the Office of Disability Services (581-6583) as soon as possible.
- Students who are having difficulty achieving their academic goals are encouraged to contact the Student Success Center (www.eiu.edu/~success) for assistance with time management, test taking, note taking, avoiding procrastination, setting goals, and other skills to support academic achievement. The Student Success Center provides individualized consultations. To make an appointment, call [217-581-6696](tel:217-581-6696), or go to 9th Street Hall, Room 1302.