ESCI 4220 A Fall 2004 Course Information

Title	Exercise Physiology
Location	Christenberry Field House 233
Day and Time	Monday, Wednesday, & Friday 9:00-9:50 am
Textbook(s)	McArdle, Katch, & Katch. (2000). *Essentials of Exercise Physiology: Second Edition*, Philadelphia: Lippincott Williams & Wilkins Katch, V.L., Katch, F.I., & McArdle, W.D. (2000). *Student Study Guide and Workbook for Essentials of Exercise Physiology, second edition*, Philadelphia: Lippincott Williams & Wilkins
Prerequisite(s)	BIOL 2111, BIOL 2112
Starting Date	8/16/2004
Ending Date	12/08/2004
Instructor	Dr. Chip Darracott Office 2B Christenberry Fieldhouse 667-4953 cdarracott@aug.edu

Purpose/Rationale

Through study of the human organism and how the organism responds and adapts to exercise stress, you will develop knowledge of the physiological basis of exercise. This foundation is essential for teachers, coaches, and exercise professionals to be able to assess and prescribe exercise and activity for the enhancement of fitness/health or physical performance.

Conceptual Framework Principles Addressed

1. The student understands the central concepts, tools of inquiry, and structures of the discipline and is able to create learning experiences that make these aspects of the subject matter meaningful for learners.
2. Be a reflective practitioner who continually evaluates the effects of his/her choices and actions on others (students, parents, and other professionals in the learning community) and actively seeks the opportunity to grow professionally.

Objectives

The student should be able to demonstrate knowledge of the physiological basis for exercise and physical activity in direct application to physical education instruction, fitness and athletic conditioning by mastering the following competencies:

1. demonstrate knowledge of the metabolic processes responsible for generation of ATP and the relationship among the anaerobic and aerobic systems (NASPE 1.4; PSC 4; NCATE 1)

2. demonstrate knowledge of the metabolic responses and adaptations to exercise including techniques for measuring or estimating anaerobic and aerobic capacity and the influence of each on athletic performance (NASPE 1.4, 2.2; PSC 4; NCATE 1)

3. demonstrate knowledge of the basic anatomy and physiology of the gas exchange system and the respiratory responses and adaptations to exercise (NASPE 1.4, 2.2; PSC 4; NCATE 1)

4. demonstrate knowledge of the basic anatomy and physiology of the circulatory system and the cardiovascular responses and adaptations to exercise including assessment of circulatory measures (NASPE 1.4, 2.2; PSC 4, 6, 7; NCATE 1)

5. demonstrate knowledge of the basic anatomy and physiology of the neuromuscular system, neuromuscular responses and adaptations to exercise, and phenomenon associated with neuromuscular function (e.g., fatigue, soreness, spasms) including assessment of neuromuscular measures (NASPE 1.4; PSC 4, 6, 7; NCATE 1)

6. demonstrate knowledge of the effects of body composition on health and athletic performance and the role of diet and exercise on controlling body fatness including assessment of body composition (NASPE 1.4, 2.2, 9.1; PSC 4, 6, 7; NCATE 1, 4)

7. demonstrate knowledge of the effect of environmental conditions on physiological responses to exercise and athletic performance and the effects of acclimation to environmental conditions (NASPE 1.4; PSC 4, NCATE 1)

Evaluation and Grading

Exam 1 25%

Exam 2 25%

Exam 3 25%

Labs and Assignments 12%

Homework questions 9% (Turn in at beginning of class each Wednesday. Accepted only if student attends class)

Project 4%

Comprehensive Final 25% (replaces lowest exam grade)

Class Participation:

> For this class to be successful, everyone involved must contribute. This includes preparing for class by completing readings and questions on time, attending class, coming to class on time, participating in class discussions and participating in all laboratories. Students may be called on to explain graphs, tables, diagrams, key terms and procedures to the class. Four absences are allowed without penalty. Each subsequent absence will incur a one point deduction from the final grade. Absences excused only for official university business.

Academic Honesty

The instructor believes in cooperative learning, however, he also believes in academic honesty and integrity. For the definitions of academic honesty, plagiarism, collusion, etc., please see the college catalog under "Academic Honesty". Any student found cheating will receive a WF for the course or a "0" for that assignment (upon discretion of the instructor). The student may also be reported to the Vice President for Academic Affairs. Plagiarism and cheating on examinations will not be tolerated. If you have questions about what constitutes plagiarism see the catalog or talk with the instructor.

Although a duplication of assignments for separate classes does not come under the definitions or examples of academic dishonesty, department policy dictates that this practice is unprofessional and unethical. Students who turn in work done previously in another class may receive a "0" for that assignment.