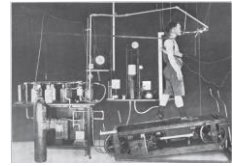


PRINCIPLES OF EXERCISE PHYSIOLOGY

KSS 4340

Kinesiology & Sports Studies -- Eastern Illinois University

Fall 2016



Instructor: Brian Pritschet, Ph.D.
Office: 2207 Lantz Phone: 581-2215 (KSS Office)
Office Hours: Monday 9-10 am, Tuesday 1-2 pm, Wednesday 9-10am & 4-5 pm & Friday 10-11 am -- other times by appointment
e-mail: D2L (submission of course materials) and blpritschet@eiu.edu

Course Description:

The course is designed to provide the prospective kinesiologist and paramedical personnel with an understanding of the physiological factors which affect human performance. Credits: 3

Prerequisites: Grade of "C" or better in BIO 2210 (Ex Sci) or 2001G (Teacher Cert.), KSS 1500, and KSS 2440; or permission of Department Chair.

Course Objectives:

1. Develop knowledge of the structure and function of the neuromuscular system
2. Demonstrate an understanding of how the neuromuscular systems respond during acute exercise
3. Demonstrate an understanding of how the neuromuscular systems adapts to chronic exercise
4. Develop knowledge of the basic concepts of bioenergetics.
5. Demonstrate an understanding of how metabolic functions are altered by acute exercise
6. Demonstrate an understanding of how the metabolic processes adapt to chronic exercise
7. Develop knowledge of the structure and function of the cardiopulmonary system
8. Demonstrate an understanding of how the CP system responds during acute exercise
9. Demonstrate an understanding of how the CP system adapts to chronic exercise
10. Evaluate the influence of various dietary factors on acute exercise performance.
11. Develop an understanding of the various means for assessing body composition.
12. Understand the impact of chronic exercise on body composition.

Evaluation:	5 Exams	30 points each
	Final Exam	50 points
	Quizzes	5-10 points each
	Class Assignments	5-15 points each

Grading Scale:	A $\geq 90\%$ of total points
	B 80-89%
	C 70-79%
	D 60-69
	F $< 60\%$

Text: Physiology of Sport and Exercise (6th ed.) Kenney, Wilmore & Costill. 2015

It is the student's responsibility to be aware of all course assignments and exams through attendance in class and by **checking D2L regularly and frequently**. Missing an assignment because you failed to check D2L or to attend class is not a legitimate excuse! All assignments must be turned in by the announced due date unless you can provide an official University recognized excuse. **A 50% penalty will be assessed for work that is turned in after the due date/time within 24 hours, after this, work will not be accepted.** The opportunity to make up work that is late due to extenuating circumstances is at the discretion of the instructor. No make-up exams, quizzes, or assignments will be given without appropriate documentation of a university accepted absence excuse.

D2L will be utilized in this course for the following: Powerpoint slides (incomplete), Online quizzes/exams, assignment submissions, readings, resources and course communications. **YOU are responsible** for being aware and making use of these tools and resources.

D2L based assignments sent via **e-mail** attachment instead of submission through 'Dropbox' will NOT be accepted unless indicated otherwise by the instructor or by permission.

This is an **UPPER LEVEL** course in your major, **your interest, attendance and participation are expected!** Successful performance in this course will not only require your presence and active engagement during class time but also regular study and review of your notes and the textbook.

The instructor's role is to help you learn and understand the course material. However, this requires you to take an active part, including asking questions during class and consulting with the instructor outside of class to clarify the things that you don't clearly understand.

Do not expect to learn exercise physiology solely during class time; class discussions are for clarifying the material or expanding upon the information presented in your text. An important portion of your learning experience will come from studying outside of class. While there will be some memorization required throughout the semester, you should attempt to **understand concepts**. Study on a regular basis; don't wait until just before an exam to study. **There is a difference between studying to learn and studying to prepare for an exam. It is suggested that you plan to study at least 1-2 hours outside of class for every 1 hour spent in the classroom to LEARN the material. In addition you should plan additional time beyond this to PREPARE for an approaching EXAM and to complete assignments.**

There will be NO extra credit offered in this course unless an unusual learning opportunity arises.

You should plan to review your notes daily and read the assignments from the text **prior** to the class in which those topics will be discussed.

Quizzes At least one quiz will be given between unit exams. **Quizzes may or may not be announced in advance!** These quizzes will include multiple choice &/or short answer questions.

Exams There will be 5 exams worth 30 points apiece. These exams may include multiple choice, matching and short answer questions and will occur approximately every 3 weeks. Unit exams will cover material from that section only.

Final Exam The final exam will be *generally* comprehensive, stressing the major points from each unit and is scheduled for:

Thursday, December 15th 8:00 am – 10:15 am

No final exams will be given on any other date/time.

Class Assignments Class assignments may include (but are not limited to) research question summaries, article summaries, and/or field or laboratory exercises.

Participation As upper level students and as part of professional behavior, all students are **expected to attend class, be on time** and to **participate** in class activities and discussions. When asked a question in class, "*I don't know*" is not an acceptable answer in most cases. You should use what you do know to make an educated guess or provide an opinion. There is no penalty for being incorrect!

Kinesiology & Sports Studies Majors must earn a grade of 'C' or better in this course to advance

Please turn phones and music players off and remove earpieces/headphones prior to the start of class and leave them in your pocket or backpacks (*they should not be on your desk or in your lap*).

There should be no texting during class!

The use of a laptop computer or tablet device to view or take notes is permissible but discouraged; however, please do not use these for anything other than class related functions (*ø facebook, games, twitter, browsing, etc.*) (*Research suggests that less information is retained when tablets/computers are used to take notes compared with writing*)

Individuals who habitually violate these guidelines will be asked to leave the classroom and will need to meet with the instructor prior to being allowed to return.

It is expected that all students will follow the guidelines set forth in the EIU Student Conduct Code (<http://www.eiu.edu/judicial/studentconductcode.php>). Violations will be reported to the Office of Student Standards.

Academic honesty is expected, cheating in any form will not be tolerated! This includes work assigned through D2L! ALL work submitted via D2L should be completed independently unless otherwise indicated by the instructor.

The information contained in this syllabus is subject to change at the discretion of the instructor

- ❖ If you are a student with a documented disability in need of accommodations to fully participate in this class, please contact the Office of Student Disability Services (OSDS). All accommodations must be approved through OSDS. Please stop by Ninth Street Hall, Room 2006 or call 217-581-6583 to make an appointment.
- ❖ Students who are having difficulty achieving their academic goals are encouraged to contact the Student Success Center for assistance with time management, test taking, avoiding procrastination, setting goals and other skills to support academic achievement (www.eiu.edu/~success). The Student Success Center provides individualized consultations. To make an appointment, go to 9th Street Hall, Room 1302 or call 581-6696.

Tentative Schedule

WEEK	Topic (& Corresponding Text Readings)	<i>Approx.</i> Exam Schedule
1	Introduction, Exercise and Homeostasis <i>(Introduction)</i>	
2	Muscle Structure & Contraction <i>(Chapter 1)</i>	
3	Muscular Contraction cont. Nervous System Control of Contraction <i>(Chapter 3)</i>	Exam 1
4	Muscle Fiber Types <i>(Chapter 1)</i> Factors Affecting Force Production	
5	Neuromuscular Adaptation to Resistance Training <i>(Chapter 10)</i>	
6	Bioenergetics – Energy Systems <i>(Chapter 2)</i>	Exam 2
7	Bioenergetics – Energy Systems cont.	
8	Metabolic Assessment <i>(Chapter 5)</i>	
9	Fatigue <i>(Chapter 5)</i> Metabolic Adaptation to Aerobic/Anaerobic Training <i>(Chapter 11)</i>	Exam 3
10	Cardiovascular Responses to Acute Exercise <i>(Chapter 6 & 8)</i>	
11	Cardiovascular Responses to Exercise cont.	
12	Pulmonary Responses to Exercise <i>(Chapter 7 & 8)</i>	Exam 4
13	Cardiopulmonary Adaptations to Training <i>(Chapter 11)</i>	
14	Nutritional Influences on Physical Performance <i>(Chapter 15)</i>	
15	Body Composition Assessment & Influence on Performance <i>(Chapter 15)</i>	Exam 5
16	Final Exam	Thursday, Dec 15th @ 8 am