

Spring 2018
APK 3110C-Section 0938
Physiology of Exercise Training

Instructor: Dr. Demetra Christou
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Office Hours: M 2 to 3 pm
& by appointment
Class Times and Location: MF Period 6 (12:50 to 1:40 pm) 220 FLG
W Period 6 (12:50 to 1:40 pm) 207 LEI

Course Overview

This introductory course in exercise physiology is designed to provide an overview of the acute and chronic physiological responses to exercise. Particular attention is placed on muscle bioenergetics and metabolism, as well as, the cardiopulmonary responses to exercise. Special topics include exercise testing, training technologies and exercise in hot and cold environments.

The prerequisite for this course is successful completion of APK 2105C (Applied Human Physiology) with a grade of C or better and junior standing or above.

Course Objectives

By the end of this course, students will be able to:

1. understand and discuss the physiological responses to acute and chronic exercise related to:
 - Skeletal Muscle
 - Cardiovascular system
 - Pulmonary system
 - Endocrine system
 - Nervous system
 - Bioenergetics and exercise metabolism
 - Temperature and acid base regulation
 - Factors affecting performance

2. select the appropriate tests for evaluating different components of fitness and athletic performance and become familiar with the current recommendations for exercise prescription for improving fitness and sport-specific performance.

Required Textbook

S.K. Powers and E. T. Howley. ***Exercise Physiology: Theory and Application to Fitness and Performance***. 9th Ed., McGraw-Hill, St. Louis, MO. 2014. ISBN: 9781259999536.

Course Examinations and Grading

Exams: There will be 4 exams (25 points each) in this course. Exams will consist of multiple-choice and true-false questions. Please bring extra pre-sharpened pencils. Exams will be given during normal class meetings.

Extra-credit quizzes: There will be 4 unannounced quizzes worth 0.5 points each. There will be NO make-up quizzes.

Grades: The points you earn from the exams and extra credit quizzes will be added and the sum will be divided by 100. The following grading scale will be used in this course. For more detailed information on current UF grading policies, please see the undergraduate catalog web page:

www.registrar.ufl.edu/catalog/policies/regulationgrades

Letter Grade	Percent of Total Points
A	90-100%
B+	86-89%
B	80-85%
C+	76-79%
C	70-75%
D+	66-69%
D	60-65%
E	0-59%

Course Policies

Requirements for class attendance and make-up exams in this course are consistent with university policies that can be found in the online catalog: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>. University counseling services can be found at <http://www.counseling.ufl.edu/cwc/Default.aspx>.

Attendance: Please make an effort to attend all lectures and to be on time.

Make-up Exams: Unexcused absences on exam days will result in a zero on the exam. If you are ill or have an emergency that prevents you from taking the exam at the scheduled time, it is your responsibility to contact the instructor as soon as possible to try and schedule a make-up exam. Documentation of the illness or emergency will be required. Any make-up exams will be at the discretion of the instructor. Scheduling make-up exams is the responsibility of the student and should be done—if at all possible—*before* the scheduled exam.

Accommodations: Students requesting classroom accommodations must first register with the Dean of Students Office-Disability Resource Center. The Dean of Students Office will provide documentation to the student who must then present this documentation to the instructor when requesting accommodation. For optimal consideration, you must see the professor within the first three days of class.

Technology: Surfing the web, checking your email, making Facebook posts, or anything of that nature is strictly prohibited. Any cell phone or other electronic device used during an exam will be considered a violation of the student honor code (i.e., cheating) and will result in a zero for that exam.

Communication: The best way to contact your course instructor is by email (ddchristou@ufl.edu). You are responsible for checking course postings on eLearning (CANVAS). All course grades will be posted on eLearning (CANVAS). Any discrepancies should be pointed out to the instructor as soon as possible, and before the last day of class.

Academic Honesty: On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment."* Any student found violating this honor code will receive a zero for that exam or assignment and may be assigned other educational sanctions at the instructor's discretion.

Evaluations: Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu>.

Counseling and Wellness Center: Contact information for the Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc/Default.aspx> 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies

Tentative Schedule*

Week	Date	Lecture Topic	Book Chapter
1	M – Jan 8	Course Introduction	Syllabus
	W – Jan 10	Work/Power/Energy Expenditure	1
	F – Jan 12	Homeostasis	2
2	M – Jan 15	HOLIDAY – NO CLASS	3
	W – Jan 17	Bioenergetics	3
	F – Jan 19	Bioenergetics	3
3	M – Jan 22	Bioenergetics/Exercise Metabolism	3, 4
	W – Jan 24	Exercise Metabolism	4
	F – Jan 26	Exercise Metabolism	4
4	M – Jan 29	Hormonal Response to Exercise	5
	W – Jan 31	Hormonal Response to Exercise	5
	F – Feb 2	Hormonal Response to Exercise	5
5	M – Feb 5	Review	
	W – Feb 7	EXAM 1 (25 pts)	1, 2, 3, 4, 5
	F – Feb 9	Neural Control of Movement	7
6	M – Feb 12	Neural Control of Movement	7
	W – Feb 14	Neural Control of Movement	7
	F – Feb 16	Skeletal Muscle	8
7	M – Feb 19	Skeletal Muscle	8
	W – Feb 21	Skeletal Muscle	8
	F – Feb 23	Cardiovascular Adjustments to Exercise	9
8	M – Feb 26	Cardiovascular Adjustments to Exercise	9
	W – Feb 28	Cardiovascular Adjustments to Exercise	9
	F – Mar 2	Cardiovascular Adjustments to Exercise	9
9	M – Mar 5	Spring Break - NO CLASS	
	W – Mar 7	Spring Break - NO CLASS	
	F – Mar 9	Spring Break - NO CLASS	
10	M – Mar 12	Review	
	W – Mar 14	EXAM 2 (25 pts)	7, 8, 9
	F – Mar 16	Pulmonary Adjustments to Exercise	10
11	M – Mar 19	Pulmonary Adjustments to Exercise	10
	W – Mar 21	Acid-base Balance/Immune System	11, 6
	F – Mar 23	Temperature Regulation	12
12	M – Mar 26	Training Adaptations	13
	W – Mar 28	Training Adaptations	13
	F – Mar 30	Training Adaptations	13
13	M – Apr 2	Review	
	W – Apr 4	EXAM 3 (25 pts)	6, 10, 11, 12, 13
	F – Apr 6	Tests to Evaluate Fitness	15
14	M – Apr 9	Exercise Prescription	16
	W – Apr 11	Factors Affecting Performance	19
	F – Apr 13	Laboratory Assessment	20
15	M – Apr 16	Training for Performance	21
	W – Apr 18	Training for Performance	21
	F – Apr 20	Review	
16	M – Apr 23	EXAM 4 (25 pts)	15, 16, 19, 20, 21
	W – Apr 25	TBA	

*The schedule is subject to change. Any changes will be announced in class and on Canvas.