

# APK 4120 - Clinical Exercise Physiology

College of Health and Human Performance  
Department of Applied Physiology and Kinesiology  
University of Florida

Course Coordinator: Stephen Dodd, Ph.D.

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Class Meeting: MWF Period 7 (1:55 –2:45pm) FLG 280

Class website: Canvas at: <http://elearning.ufl.edu>

Required Textbooks: “**Clinical Exercise Physiology**”, 3<sup>rd</sup> Edition, 2013  
**Authors:** Ehrman, Gordon, Visich, Keteyain,  
Human Kinetics Publishing.

University Counseling Services and Mental Health Services: 392-1575,  
<http://www.counseling.ufl.edu/cwc/Default.aspx>

University Police Department: 392-1111 or 9-1-1 for emergencies.

Rationale for Course: This course is required for the undergraduate specialization in Exercise Physiology offered by the Department of Applied Physiology and Kinesiology. Students completing this specialization usually seek placement in various health-related professions, medical school, or graduate school.

Course Description: This is an advanced undergraduate course in Clinical Exercise Physiology designed to provide students with an understanding of recent advances in exercise physiology for “clinical” populations. Particular emphasis is placed on the acute and chronic responses to exercise in patients at risk for or having cardiac, pulmonary, and metabolic diseases. Specific topics addressed include: pathophysiology of disease processes, clinical assessment of disease severity, diagnostic testing, and exercise rehabilitation in clinical populations. Students should have completed *APK 2105 Applied Human Physiology* or equivalent course in Human Physiology and/or Exercise Physiology before enrolling in this course.

## Student Learning Outcomes:

Content: Identify, describe, and explain the basic concepts, theories and terminology of natural science and the scientific method within the subject areas of cardiac, pulmonary, and metabolic diseases.

Identify, describe, and explain the major scientific developments within the subject area and the impacts on society and the environment. Identify, describe, and explain relevant processes that govern biological and physical systems within the subject area.

Critical Thinking: Formulate empirically-testable hypotheses derived from the study of physical processes or living things within the subject area of cardiac, pulmonary, and metabolic diseases. Apply logical reasoning skills effectively through scientific criticism and argument within the subject area.

Apply techniques of discovery and critical thinking effectively to evaluate experimental outcomes.

Communication: Communicate concepts clearly and effectively using written and/or graphic forms on examinations.

Course Objectives: Upon completion of this course, the student should have an understanding of the following topics in Clinical Exercise Physiology:

- a. Basic principles of health and exercise assessment
- b. Basic principles of endocrine and metabolic disorders and clinical management
- c. Basic principles of cardiovascular physiology and clinical management
- d. Basic principles of respiratory system disorders and management
- e. Basic principles of bone and joint disorders and clinical management
- f. Basic principles of neuromuscular disorders and clinical management
- g. Basic principles of exercise training and prescription in patients with the above listed disorders

## Grading and academic policies:

1. There will be four (4) regular exams (each counting 25% of your final grade). **Final course grades will be determined solely by the 4 exam grades.**
2. Every effort will be made to adhere to the tentative exam dates listed on the course outline, but exam dates are subject to change by the instructor with advance notice to students.
3. All exams will consist of multiple choice and true/false questions. Examples of test question format will be posted before exam 1..
4. **Students will be responsible for all material presented in class in addition to the lecture material posted on the class website.** Exam questions will be derived from lecture material as presented in class, assigned textbook readings, and any class handouts posted on website.
5. Lecture notes will be made available on the class website no later than the day prior to class.
6. All students must be present at the scheduled exam prior to any student completing the exam and leaving the examination room. Once any student has completed the exam and left the exam room, no late-arriving students will be admitted to the exam.
7. Attendance will not be recorded for lectures. However, since students will be responsible for all material covered in lecture – some of which may NOT be covered by the assigned reading – **failure to attend class will almost certainly result in a significantly lowered grade.**
8. Exams may be scaled but the final course grades will not be changed. There will be no exceptions.
9. No one can leave the room during an exam. Please go to the rest room before the exam. If you think may need to go during the exam, you must get approval before the exam starts.
10. A U.F. ID will be required to turn in each exam.

## **Make-Up Exam**

The only lecture exam that is **REQUIRED** is the make-up exam at the end of the term. In other words, if you miss any (or all) exam(s), the make-up exam will replace that (those) score(s). If you know ahead of time that you will miss an exam OR you have an emergency and cannot make it to an exam, DO NOT PANIC. There is no reason to contact your instructor or get a written excuse. Also, if you are not prepared on the day of the exam, do NOT come to take the exam. Just get ready for the make-up exam!

### Grading Scale:

A	90.0 – 100	C	70.0 – 76.9
B+	87.0 – 89.9	D+	67.0 – 69.9
B	80.0 – 86.9	D	60.0 – 66.9
C+	77.0 – 79.9	E	Below 60.0

### Additional course policies:

1. Phones must be turned to silent or off during all lectures and exams. Vibrate and quiet settings are not acceptable. They should never be visible during an exam and, if seen, will be looked upon as an attempt to use it resulting in the consequences shown below in “Academic Honesty”.
2. Students will be expected to show respect to the instructors and all students in the class. Students behaving disrespectfully (talking during lectures, making inappropriate or threatening statements to instructor or students, using phones in class, etc.) will be dismissed from the lecture or exam at hand. All university regulations governing student behavior will be enforced.
3. Lectures will begin at the scheduled times. Students will be expected to arrive on-time, and in the event of tardiness, to enter the room from the rear with as little disruption as possible.
4. No audio or video recordings may be made of any part of this course without written consent by the instructor who is administering that part of the course.
5. Lecture notes posted on the class website are the property of the instructor. They are posted solely for students in this course and solely to facilitate note-taking and studying. No part of the materials may be re-distributed, reproduced, or used for any purpose other than note-taking and studying.

### Students requiring special accommodations:

“Students requesting special classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation.” And, per the disability resource center: for optimal consideration, you must see the professor within the first three (3) days of class.

### Academic Honesty:

Cheating on exams in any way will not be tolerated. Cheating includes, but is not limited to: attempting to look or looking at another student’s exam or answers; or allowing another student to look at one’s exam or answers. If a student is made aware of cheating, approached by another student to conspire to cheat, or concerned that another student may be attempting to look at his/her exam or answers, it is that student’s responsibility to notify the instructor to avoid implication in cheating incidents.

**Any student caught cheating on any exam will receive a zero for that exam. There will be no exceptions. Additionally, the instructor may assign a failing grade for the course.** In all cases,

students will be subject to the regulations and consequences, which can include probation or expulsion from the University, outlined in the Student Handbook.

Students are expected to adhere to UF student honor code: “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”

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>

<b>APK 4120 LECTURE/EXAM SCHEDULE</b>		
<b>Spring, 2018</b>		
Notes: Lecture topic dates are approximate. Exam dates are subject to postponement with notice.		
<b><u>DATE</u></b>	<b><u>TOPIC</u></b>	<b><u>Text Chapter</u></b>
	Introduction to Course. Syllabus & Outline. - Dr. Dodd	1
	Behavioral Approaches to Physical Activity Promotion -Dr. Beatty	2
<b>Holiday</b>		
	General Interview and Examination Skills - Dr. V.Dodd	4
	Pharmacology – Drs. Borsa/Dodd	3
	GXT and Exercise Prescription – Dr. Dodd	5
<b>Exam 1</b>		<b>1 thru 5</b>
	Hypertension – Dr. Dodd	8
	Hyperlipidemia and Dyslipidemia - Dr. Dodd	9
	Diabetes, Obesity, Metabolic Syndrome – Dr. Christou	6, 7, 10
<b>Exam 2</b>		<b>6 thru 10</b>
	End-Stage Renal Disease - Dr. Dodd	11
	Acute Coronary Syndromes – Angina/Myocardial Infarction Dr. Handberg - UF Medicine/Cardiology	12
	Peripheral Artery Disease – Dr. Dodd	15
<b>Spring Break</b>		
	Revascularization of the Heart/ Chronic Heart Failure - Dr. Ferreira	13 & 14
	Cardiac Electrical Pathophysiology Dr. Matthew Mckillop - UF Medicine/Cardiology	16
<b>Exam 3</b>		<b>11 thru 16</b>
	Chronic Obstructive Pulmonary Disease - Dr. Reid	17
	Asthma - Dr. Reid	18

**Cont'd**

	<b>Arthritis - Dr. Borsa</b>	<b>22</b>
	<b>Osteoporosis - Dr. Hass</b>	<b>23</b>
	<b>Low Back Pain - Dr. Borsa</b>	<b>24</b>
	<b>Multiple Sclerosis / Cerebral Palsy - Dr. Hass</b>	<b>25 &amp; 26</b>
	<b>Aging - Dr. Chrisou</b>	<b>30</b>
	<b>Stroke - Dr. Cauraugh</b>	<b>28</b>
	<b>Spinal Cord Injury - Dr. Barton</b>	<b>25</b>
	<b>Exam 4</b>	
	<b>Make-up Exam</b>	