

Spring 2007

**California State University, Northridge  
Department of Kinesiology**

**KIN 346 - Physiology of Exercise  
Th 3:30 – 6:15PM**

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Textbook: Wilmore, J.H. and D.L. Costill. *Physiology of Sport and Exercise*, Human Kinetics, Third Edition 2004.

Prerequisites: Biol 281 - Human Physiology

Course Description: This course will examine the effects of acute and chronic exercise on physiological systems in the human body. Emphasis will be placed on the role of these physiological systems regarding endurance, time to fatigue, strength, performance and how training modifies these systems.

Course Objectives: At the conclusion of the course the student will: 1) Know and understand the physiological mechanisms that sustain and act as the basis of the body's response to exercise; 2) Correctly use terminology to describe the physiological adaptations that occur in response to both acute and chronic exercise; 3) Understand the law of specificity as it applies to physiological adaptation; 4) Explain common theories in physiology and relate them to proper practices and methods of exercise training; 5) Understand the mechanisms by which exercise may alter the severity of diseases associated with physical inactivity.

Exams: The exams will be a combination of objective questions and questions requiring short answer responses. Examination material is predominately from lecture although there may be some questions from the textbook that are not covered in lecture.

Exam Preparation: What must you do to succeed in this class?? Read the chapter before class. Read the chapter after class. Understand the material in the chapter section review boxes. Answer all of the questions at the end of each chapter. Write the material so you really do know it. You need to know the material in detail not just recognize it. Talk about the material with other students. Most importantly, ask questions - if you don't ask I will assume that you understand.

Make Up Exams: In the case of a medical or family emergency, a make-up exam can be scheduled ONLY if I am notified prior to the class in which the exam is scheduled. This requires that we meet and discuss the issue, I agree that your reason for missing the assignment is valid, **AND** I excuse you from the exam. You will receive a 0 (ZERO) for the exam if this procedure is not followed.

Exam Review Policy: Possession or use of a previous student's exam notes will constitute an ethics violation. Course examinations will NOT be returned to the student. Students will be allowed to review their previous exams in the instructor's office during office hours or at other specially announced times, but all review will be completed 1 week prior to the last official class meeting. Extra exam review times will NOT be added prior to the final examination. You should review your exams immediately after they are graded (i.e., when they are returned in class). When you review a previously completed exam, you may NOT take notes or use any type of device to record or document the exam material. Violation of this rule will constitute an ethics violation on the exam.

Personal Communication Devices: All personal communication devices (i.e., pagers, cell phones, etc.) will be turned off while in class. Ten (10) points will be deducted from your final grade on each occasion that your communication device is activated in class. This policy may be modified on an individual basis if the need is warranted.

**Cheating:** Any student caught cheating will automatically fail the course and may be subject to more severe University discipline. I expect all students to know, understand, adhere to and enforce the California Code of Regulations, Section 41301, Title 5 as found in the university catalog. If you cannot abide by the policies stated in the code, you should not be here.

## COURSE OUTLINE

Class Session	Chapter	Date	Content
1	Introduction	2/1/2007	Exercise Physiology - Roots and Historical Perspective
2	1	2/8	Structure and Function of Skeletal Muscle
3	2	2/15	Neurological Control of Skeletal Muscle
4	3	2/22	Neuromuscular Adaptations to Resistance Training
4	15	2/22	Optimal Body Weight for Performance
<b>6</b>	<b>Exam I</b>	<b>3/8</b>	<b>Exam</b>
5, 6	4	3/1, 3/8	Basic Energy Systems
7	5	3/15	Hormonal Regulation of Exercise
8	6 & 19 (pp. 614-624)	3/22	Metabolic Adaptations to Training
8, 9	7	3/22, 3/29	Cardiovascular Control during Exercise
9	8	3/29	Respiratory Regulation during Exercise
		<b>4/5</b>	<b>Spring Break – No Class</b>
<b>10</b>	<b>Exam II</b>	<b>4/19</b>	<b>Exam</b>
10, 11	9	4/12, 4/19	Cardiorespiratory Adaptations to Training
12	12	4/26	Training for Sport
12	15	4/26	Ergogenic Aids and Performance
13	13	5/3	Nutritional Ergogenic Aids
13	10	5/3	Physiological Responses to Exercise in the Heat
<b>14</b>	<b>Exam III</b>	<b>5/10</b>	<b>Exam</b>
15	20 & 21	5/17	Obesity, Cardiovascular Disease and Physical Activity
<b>16</b>	<b>Final Exam</b>	<b>5/24</b>	<b>Comprehensive Final 3:00PM – 5:00PM</b>

Grading		Grade Scale			
Exam I	100 points	A	94-100%	C	70-73
Exam II	100	A-	89-93	C-	67-69
Exam III	100	B+	84-88	D+	64-66
Final	200	B	80-83	D	60-63
Total	500	B-	77-79	D-	57-59
		C+	74-76	F	<56