KINE 473 - Exercise Physiology: Spring 2017

Instructor: Dr. John K. Petrella
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Office Hours: T,Th 11:00-3:00, or by appointment
Office: CHS 2G29
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Class Hours: MW 1:00-2:50, CHS 1253

GENERAL COURSE OBJECTIVE:

To understand the regulation of physiological systems during exercise and training

SPECIFIC COURSE OBJECTIVES:

-understand the basic energy systems and how they are used during exercise (TLA = I)
-understand structure and function of the skeletal and neuromuscular systems during exercise (TLA = I)
-understand the effect of exercise on cardiovascular, and respiratory systems (TLA = I)
-understand physiological adaptations (energy systems, skeletal, neuromuscular, cardiovascular, respiratory systems) to training (TLA = I)
-be able to apply the material to a real world setting through laboratory component. (TLA=Q,I)
-understand how to interpret physiological data from lab (TLA = Q, I)

REQUIRED TEXT:

Kraemer, Fleck, and Seschenes. *Exercise Physiology, Integrating Theory and Application 2ed.*, Wolters Kluwer/LWW: Baltimore, MD.

CLASS POLICIES:

Exams: Each student is expected to take each exam at the scheduled time. If a student must be absent on exam day, the student has the opportunity to make up the material using an alternate exam during finals week.

Attendance and Participation: Daily attendance and participation is expected. You are expected to participate in daily discussions of the material. Input from all members of the class is critical to enhance the learning environment and to make the class more enjoyable. You will be asked to present the material we have discussed or answer questions related to the material on most if not all class days. You are allowed up to 3 absences without penalty. Every absence after the first 3 results in a 1% point deduction from your final average. An absence is missing more than 10 minutes of class.
NOTE: if you have 0 absences, and a B+ or higher average by the reading day prior to finals, you can exempt the final exam.

Labs: Lab sessions are critical to fully understanding the application of the material discussed in class. Ms. Rogers, Lab Coordinator, will provide further information on the first day of lab.

Late work: All assignments are to be submitted by email at the beginning of class on the due date. Assignments turned in after the beginning of class on the due date will receive a 10% point deduction for each 24 hours after the deadline

Q/A assignments: Q/A assignments will be given. These are similar to study guides. These assignments along with supplemental material will be posted on Moodle.

Academic Integrity: Students have the responsibility to know and observe the expectations of *Academic Integrity Value Statement* located in the Samford University Student Handbook (p. 5-7). This code forbids cheating, fabrication, or falsification of information, multiple submission academic work, plagiarism, abuse of academic material, and complicity in academic dishonesty. In almost all cases the course grade is reduce to F. Standards of academic integrity will be enforced in this course. Students are required to report cases of academic dishonesty to the course's instructor.

Vandalism: According to the Student Handbook (pg 82); Definition: Destroying, defacing or damaging university property or property belonging to students, faculty, staff or guests of the university

including, but not limited to, tampering with, misusing or abusing computer equipment, programs and/or data. Minimum Sanction: Probation and restitution, $150 fine

Email: Your Samford e-mail address is an official means of communication. A significant amount of information related to this course will be conveyed by email. Students are responsible for reading their Samford e-mail in a timely manner (pg 166, Student Handbook).

Electronic devices: Use of electronic devices (laptops, cell phones, recording devices, PDAs, etc.; pg. 123 Student Handbook). Dr. Petrella has complete discretion on use of electronic devices in the classroom. Samford University encourages classroom use of technology but only within the framework defined by the instructor.

Emergency Readiness: *RAVE* is the primary method of communication used by Samford University during a campus emergency. If you have not registered for *RAVE* alerts, please go to the My Contact Information box on your Portal homepage to update your *RAVE* Emergency Alert Information.

Samford University utilizes *Samford Alert* for desktop, laptop, tablet, and mobile devices to provide students with information, procedures, and links about what to do in the event of a variety of emergency situations that could occur on our campus. If you do not already have the *Samford Alert* app on your mobile device, laptop, desktop, or tablet, please go to the *In Case of Emergency* box on your Portal homepage for instructions on downloading the App. Once you have downloaded the App, please take time to review the information provided, it is important that you know what to do in the case of a campus emergency.

If an emergency occurs during class, follow instructions related to shelter in place or evacuation. If an evacuation occurs, all students should calmly proceed to the appropriate check point (CHS1; paved path on the west side of the pond closest to Lakeshore Drive; CHS 2; paved path on the east side of the pond closest to Lakeshore Drive). ***Check in with your instructor as soon as possible, this is mandatory***. The instructor will provide further information at that time. ***If you are absent during a class period where an emergency occurs, you will receive a RAVE text/email instructing you to check in online, this is mandatory***.

Americans with Disabilities Act: Students with disabilities who wish to request accommodations should register with Disability Resources (205) 726-4078, disability@samford.edu, University Center Room 205, www.samford.edu/dr). Students who are registered with Disability Resources are responsible for providing me with a copy of their accommodation letter and scheduling a meeting with me to discuss how their approved accommodations will apply to this course. Accommodations will not be implemented until we have met to review your accommodation letter.

Inclement Weather: Inclement weather or other events beyond the control of the University that might cause risk or danger to students, faculty and staff may occasionally result in changes to normal University operations, including cancellation of classes or events; the class schedule and/or calendar may be adjusted.

Expectations of Students and Instructor:

Be professional and strive for excellence in everything that you do.

a. Arrive on time for each class
b. Read assigned material and answer Q/A prior to class period
c. Participate in class discussions
d. Avoid use of cell phones/texting during class
e. Purchase the required textbook (you may want to bring your book to class each class period)
f. Treat all class members with respect

COURSE EVALUATION:

Exam I	20%
Exam II	20%
Exam III	20%
Final exam (cumulative)	20%
Labs	20%
Total:	100%

Final Grade

A	=	93%+	D+	=	67-69.9%
A-	=	90-92.9%	D	=	63-66.9%
B+	=	87-89.9%	D-	=	60-62.9%
B	=	83-86.9%	F	=	0 – 59.9%
B-	=	80-82.9%			
C+	=	77-79.9%			
C	=	73-76.9%			
C -	=	70-72.9%			

Date	Topic	QA resources
January 23	Introduction, Definitions	QA1 Pg 4-16, 77-88
January 25	Skeletal muscle structure	QA 2 Pg 89-99.
January 30	Muscle Contraction	
February 1	Neuro-Muscular System	QA 3 Pg 126-142
February 6	Neuro-Muscular System	
February 8	Neuro-Muscle Fatigue	
February 13	Neuro-Muscle Fatigue	
February 15	**TEST #1**	
February 20	Bioenergetics	QA 4 Pg 27-34
February 22	Bioenergetics	
February 27	Bioenergetics	
March 1	Bioenergetics	QA 5 Pg 38-57
March 6	Exercise Metabolism	QA 6 Pg 57-64
March 8	Exercise Metabolism	
March 13	**SPRING BREAK**	
March 15	**SPRING BREAK**	
March 20	Review for test 2	
March 22	**Test # 2**	
March 27	Cardiovascular Systems	QA 7 Pg 147-179
March 29	Cardiovascular Systems	QA 8 Pg 147-179 cont.
April 3	Cardiovascular Systems	
April 5	Respiration	QA 9 Pg 180-190
April 11	acid balance	QA 10 191-205
April 12	acid balance	
April 17	EASTER HOLIDAY	
April 19	Prescription for Adaptations	
April 24	Adaptations to Training	QA 11 383-397, powerpoints
April 26	Adaptations to Training	
May 1	**TEST #3**	
May 3	**Review for final exam**	
May 8	**Cumulative Final**	

This schedule may be amended as needed by Dr. Petrella