

GEORGE MASON UNIVERSITY
School of Recreation, Health, and Tourism
Division of Health and Human Performance
KINE 310-A02: Exercise Physiology I (3)
Summer 2013

DAY/TIME:	Online	LOCATION:	Online
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PREREQUISITES

BIOL 124, BIOL 125, ATEP 300 (formerly KINE 300).

COREQUISITES

KINE 200

COURSE DESCRIPTION

Introduces students to the physiologic, neuroendocrine, and biochemical changes of the human body that are associated with exercise and work.

COURSE OBJECTIVES

Upon successful completion of this course students will:

1. Have a theoretical knowledge regarding the physiological responses and capacity for exercise by the human body.
2. Be able to differentiate the physiological metabolic processes that govern human movement and apply each of these processes to physical performance.
3. Be able to compare and contrast the physiological principles of the support systems of the body and appraise how each system is affected by and adapts to exercise.
4. Demonstrate the ability to make recommendations regarding exercise programs based on basic exercise physiology knowledge.
5. Attain knowledge of current issues in exercise physiology research and be able to critically evaluate published literature.

COURSE OVERVIEW

This course provides a theoretical basis for understanding the body's physiological responses to exercise. Specifically, the course investigates how the support systems of the body (respiratory, cardiovascular, muscular, etc.) function, in cooperation with human energy production to insure that energy is provided for exercise. Emphasis will be placed upon the practical application of exercise physiology principles to coaching, teaching, and other physical training practices.

Attendance and Participation

It is expected students will check email and Blackboard daily.

Academic Load

There will be regular homework assignments and readings that may require anywhere from 2-3 hours of work per day. Additionally, regular readings will be assigned to students. Students are expected to complete all work on time. Extensions will not be granted on assignments unless an extenuating circumstance arises. Students may be asked to provide official documentation in certain instances. The purpose of the assignments is to aid students in learning the material.

Assignments

All assignments must be typed and submitted via Blackboard. A loss of points may occur for improper grammar and spelling. It is recommended students save all assignments on their personal computers and/or a back-up device.

Class Delivery

The course is an online course. Online powerpoint presentations, videos, online discussions and reading assignments will be utilized to present the course material to students.

Technology Use During Class

Students will need a computer and internet access to successfully complete this class.

Correspondence

The preferred method of communication is email. Emails should originate from a George Mason email account and be in a professional format (i.e. emails should not look like a text message!).

REQUIRED READINGS

McArdle, W.D., Katch, F.I., Katch, V.L. (2011) *Essentials of Exercise Physiology (4th edition)*. McGraw-Hill Publishing.

EVALUATION

This course will be graded on a point system, with a total of 900 possible points.

Assignment	Points
Mid-Term Exam #1	100
Mid-Term Exam #2	100
Mid-Term Exam #3	100
Mid-Term Exam #4	100
Final Exam	200
HW	200
Research Paper	100
Total	900

Grading Scale

A = 94 – 100	B+ = 88 – 89	C+ = 78 – 79	D = 60 – 69
A- = 90 – 93	B = 84 – 87	C = 74 – 77	F = 0 – 59
	B- = 80 – 83	C- = 70 – 73	

TENTATIVE COURSE SCHEDULE

DATE			TOPIC	READINGS/ASSIGNMENT DUE
MTW	May	20-22	Powerpoint slides: 1) Introduction to Exercise Physiology; 2) Chapter 2 Macronutrients and Micronutrients; 3) Chapter 3 Food Energy & Optimum Nutrition for Exercise; Chapter 4 Nutritional Aids to Performance Read/Listen/Watch: Supplement Materials on Blackboard for Mid-Term Exam #1	1) Read Chapters 2, 3 & 4 2) HW #1 Due by 5 pm on Wednesday, May 22

DATE			TOPIC	READINGS/ASSIGNMENT DUE
TH	May	23	Mid-Term Exam #1 – 40 Questions on Chapters 2, 3 & 4	1) Mid-Term Exam 1 completed by 5 pm on Thursday May 23 2) HW #2 Due by 5 pm on Thursday May 23
MTW	May	27	<i>Powerpoint slides:</i> Chapter 5 Fundamentals of Human Energy Transfer; Chapter 6 Human Energy Transfer During Exercise; Chapter 7 Measuring and Evaluating Human Energy – Generating Capacities During Exercise; Chapter 8 Energy Expenditure During Rest and Physical Activity <i>Read/Listen/Watch:</i> Supplement Materials on Blackboard for Mid-Term Exam #2	1) Read Chapters 5, 6, 7 & 8 2) HW Assignment #3 Due by 5 pm on Wednesday
TH	May	30	Mid-Term Exam #2 – 50 Questions on Chapters 5, 6, 7 & 8	1) Mid-Term Exam 2 completed by 5 pm on Thursday May 30 2) HW #4 Due by 5 pm on Thursday May 30
MTW	June	3-5	<i>Powerpoint slides:</i> Chapter 9 The Pulmonary System and Exercise; Chapter 10 Cardiovascular System and Exercise; Chapter 11 The Neuromuscular System and Exercise; Chapter 12 Hormones, Exercise and Training <i>Read/Listen/Watch:</i> Supplement Materials on Blackboard for Mid-Term Exam #3	1) Read Chapters 9, 10, 11 & 12 2) HW Assignment #5 Due by 5 pm on Wednesday
TH	June	6	Mid-Term Exam #3 – 50 Questions on Chapters 9, 10, 11 & 12	1) Mid-Term Exam 3 completed by 5 pm on Thursday June 6 2) HW #6 Due by 5 pm on Thursday June 6
MTW	June	10-12	<i>Powerpoint slides:</i> Chapter 13, 14, 15, 16 & 17 <i>Read/Listen/Watch:</i> Supplement Materials on Blackboard for Mid-Term Exam #4	1) Read Chapters 13-17 2) HW Assignment #7 Due by 5 pm on Wednesday
TH	June	13	Mid-Term Exam #4 – 50 Questions on Chapters 13, 14, 15, 16 & 17	1) Mid-Term Exam 4 completed by 5 pm on Thursday June 13 2) HW #8 Due by 5 pm on Thursday June 13

DATE			TOPIC	READINGS/ASSIGNMENT DUE
MTW	June	17-19	Work on Research paper and study for final exam	
TH	June	20	Final Exam – 100 Questions on chapters 2-17	1) Research paper due by 5 pm on Thursday June 20 2) Final Exam completed by 5 pm on Thursday June 20

Note: Faculty reserves the right to alter the schedule as necessary.

Mid-Term Exams and Final Exam

There will be **4** mid-term exams and a final exam (5 total exams). The final exam will be cumulative. The format for all exams will be multiple choice, true/false, and fill in the blank questions.

Homework Assignments

Regular homework will be assigned. There will be **8** total HW assignments. No late homework assignments will be accepted.

Research Paper

Students will be required to submit a research paper. The research paper will be a literature review of a specific topic in the field of exercise physiology. The literature review must summarize the *major* papers related to the topic chosen. The literature review should be 5-7 pages (typed, double-spaced, 12 pt font). A **minimum of 10** references must be used. The paper should be formatted using APA guidelines. The research papers will be due by 5 pm on June 20. A more detailed description of the research paper requirements will be made available on Blackboard.

Final Grades

Once your FINAL GRADE at the end of the semester is posted on mymasonportal/blackboard, you will have 24 hours to inquire about it. After that period, your grade will be posted as final.

ACADEMIC INTEGRITY

Students are expected to follow the George Mason University Honor Code. All assignments are subject to evaluation under plagiarism detection software. In the event that students hand in written assignments that are identical to another students assignment both students will be given a zero for the assignment.

Student Expectations

- Students must adhere to the guidelines of the George Mason University Honor Code [See <http://oai.gmu.edu/honor-code/>].
- Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <http://ods.gmu.edu/>].
- Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/1301gen.html>].
- Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.
- Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- Students are expected to exhibit professional behaviors and dispositions at all times.

Campus Resources

- The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <http://caps.gmu.edu/>].
- The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing [See <http://writingcenter.gmu.edu/>].
- For additional information on the College of Education and Human Development, School of Recreation, Health, and Tourism, please visit our website [See <http://rht.gmu.edu>].

CORE VALUES COMMITMENT: The College of Education and Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles.

