

GEORGE MASON UNIVERSITY
School of Recreation, Health, and Tourism
Division of Health and Human Performance
KINE 310-A02: Exercise Physiology I (3)
Summer 2014

DAY/TIME:	Online	LOCATION:	Online
PROFESSOR:	Peter Melanson, Adjunct	EMAIL ADDRESS:	pmelanso@GMU.edu
OFFICE LOCATION:	Online – E-Mail	PHONE NUMBER:	919-753-6654
OFFICE HOURS:	By appointment	FAX NUMBER:	
Dept. Website	Rht.gmu.edu	Class Website	mymasonportal.gmu.edu

PREREQUISITES

BIOL 124, BIOL 125, ATEP 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.

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.

NATURE OF COURSE DELIVERY

The course is primarily a lecture course. However, other approaches may be used to facilitate learning. These include: class discussions, videos, demonstrations and in-class activities.

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

Kennedy, W.L., Wilmore, J.H., Costill, D.L. (2011) *Physiology of sport and Exercise (5th edition)*. Human Kinetics.

EVALUATION

This course will be graded on a point system, with a total of 1000 possible points.

Assignment	Points
Exam #1	10%
Exam #2	10%
Exam #3	10%
Exam #4	10%
Final Exam	20%
HW (5 Points each??)	15%
Research Paper and Presentation	15%
Professionalism	10%
Total	100%

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%	

Exams and Final Exam (Objectives 1, 2, 3 & 4)

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. **IMPORTANT** – the exams will be timed. Once you start the exam you must complete within a set amount of time (90 minutes for mid-term exams; 120 minutes for the final exam).

Homework Assignments (Objectives 1, 4 & 5)

Regular homework will be assigned. There will be **8** total HW assignments. No late homework assignments will be accepted. All homework assignments must be submitted on Blackboard.

Research Paper and Presentation (Objective 5)

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 4-6 pages (typed, double-spaced, 12 pt font). A **minimum of 10** references must be used. The paper should be formatted using APA guidelines. A more detailed description of the research paper requirements will be made available on Blackboard. Additionally, students must create a 8-10 minute PowerPoint presentation of their research paper. Students will be required to record audio of them presenting the presentation using the built in audio recording in the PowerPoint software. Directions as to how to perform this will be given if needed. The research paper and presentation must be submitted on Blackboard.

Professionalism (*Objectives 1, 2, 3, 4 & 5*)

Students are expected to behave in a professional manner. Depending on the setting professionalism may look slightly different but generally consists of similar components. For undergraduate Kinesiology students in a classroom setting professionalism generally consists of the following components:

Attendance and Participation (0% of Professionalism Grade) – Show up on time to class, pay attention, and engage yourself in the lessons, discussions, class activities, etc. Demonstrate that you have an interest in the subject matter. Follow George Mason University policies for any missed classes.

Attendance and Participation Evaluation: Since this is an online class with no scheduled meeting times attendance and participation will not count towards the professionalism grade.

Communication (25% of Professionalism Grade) – When communicating with the instructor and classmates, either face-to-face or via email, students should address the other person appropriately, use appropriate language and maintain a pleasant demeanor.

Example email with instructor:

Dr. Instructor Last Name,

I have a question regarding....

Regards,
Student's Name

Example in-person interaction with instructor:

Student: Professor (*instructor's last name*) I have a question regarding....

Professor: (Student's name) I would be happy to help you. What is your question?

Student: My question is.....

Professor: The answer to that question is...

Student: Professor (*instructor's last name*) thank you for your time and availability to answer my questions.

Communication Evaluation: All students will start with 25%. For every instance in which the student does not use proper communication 5% will be deducted from 25%. All incidents will be documented by the instructor. The Professor reserves the right to not answer emails and questions in person, if the student does not appropriately address the Professor.

Responsibility/Accountability/ Honesty/Integrity (50% of Professionalism Grade) – Professionals take responsibility for their actions and are accountable. This can occur at multiple levels but generally consists of completing assignments on time, submitting work that is of the appropriate quality, honoring commitments and owning up to mistakes. Students are expected to be honest with the instructor, classmates and themselves. Professionals keep their word when committing to something and act in an ethical manner. See George Mason University policy for further guidance.

Responsibility/Accountability/ Honesty/Integrity Evaluation: All students will start with 50%. For every instance in which the student is irresponsibility, not accountable for their actions, dishonest or fail to act in an ethical manner 10% will be deducted from 50%. All incidents will be documented by the instructor.

Self-Improvement/Self-awareness (25% of Professionalism Grade) – One should be aware of their strengths/weaknesses and constantly seek to improve. Professionals regularly seek out opportunities to increase their knowledge and improve their current skill set. Specific to this class an example of how a student may demonstrate self-improvement/self-awareness is by attending office hours following a poor grade on an exam or assignment.

Self-Improvement/Self-awareness Evaluation : For every instance in which the student does not take advantage of an opportunity to increase their knowledge in the subject area of the class and/or their personal skill set 5% will be deducted from 25%. All incidents will be documented by the instructor.

Honor Code

Students are held to the standards of the George Mason University Honor Code (see <http://honorcode.gmu.edu> for details). Violations, including cheating and plagiarism, will be reported to the Honor Committee. Student assignments may be put through plagiarism detecting software, and if the outcome of the software analysis raises questions the student will be held accountable and normal Mason Honor Code procedures will be set in place.

TENTATIVE COURSE SCHEDULE

DATE		TASKS	READINGS/ASSIGNMENT DUE
Week 1	May 19-22	<p>Read: Syllabus</p> <p>Study powerpoint slides: Introduction to Exercise Physiology, Macronutrients and Micronutrients, Optimum Nutrition for Exercise; Ergogenic Aids to Performance</p> <p>Watch: Supplement Materials on Blackboard for Mid-Term Exam #1</p>	<p>1) Read Chapter 15 pp 367-391</p> <p>2) Read Chapter 16</p> <p>3) HW #1 Due by 5 pm on Wednesday, May 21</p>
Week 1	May 23-25	<p>Mid-Term Exam #1 – 50 Questions on powerpoint slides, readings, HW #1 and HW #2</p>	<p>1) Mid-Term Exam 1 completed by 5 pm on Sunday, May 25</p> <p>2) HW #2 Due by 5 pm on Sunday, May 25</p>
Week 2	May 26-29	<p>Study powerpoint slides: Fundamentals of Human Energy Transfer During Exercise; Measuring and Evaluating Human Energy – Generating Capacities During Exercise; Energy Expenditure During Rest and Physical Activity</p> <p>Watch: Supplement Materials on Blackboard for Mid-Term Exam #2</p>	<p>1) Read Chapter 2</p> <p>2) Read Chapter 5</p> <p>3) HW #3 Due by 5 pm on Wednesday, May 28</p>
Week 2	May 30-June 1	<p>Mid-Term Exam #2 – 50 Questions on powerpoint slides, readings, HW #3 and HW #4</p>	<p>1) Mid-Term Exam 2 completed by 5 pm on Sunday, June 1</p> <p>2) HW #4 Due by 5 pm on Sunday, June 1</p>
Week 3	June 2-5	<p>Study powerpoint slides: The Cardiovascular System and Exercise; The Respiratory System and Exercise; The Neuromuscular System; The Endocrine System - Hormones, Exercise and Training</p> <p>Watch: Supplement Materials on Blackboard for Mid-Term Exam #3</p>	<p>1) Read Chapter 6</p> <p>2) Read Chapter 8 pp 181-196</p> <p>3) Read Chapter 7</p> <p>4) Read Chapter 8 pp 196-203</p> <p>5) Read Chapter 1</p> <p>6) Read Chapter 3</p> <p>7) Read Chapter 4</p> <p>8) HW #5 Due by 5 pm on Wednesday, June 4</p>
Week 3	June 6-8	<p>Mid-Term Exam #3 - 50 Questions on powerpoint slides, readings, HW #5 and HW #6</p>	<p>1) Mid-Term Exam 2 completed by 5 pm on Sunday, June 8</p> <p>2) HW #6 Due by 5 pm on Sunday, June 8</p>

DATE		TASKS	READINGS/ASSIGNMENT DUE
Week 4	June 9-12	Study powerpoint slides: Exercise Training and Adaptations; Body Composition, Obesity, Children, Aging and Disease Prevention Watch: Supplement Materials on Blackboard for Mid-Term Exam #4	1) Read Chapter 9, 10, 11, 12, 13 2) Read Chapter 15 pp 355-366 3) Read Chapter 17, 18, 19, 21, 22 8) HW #7 Due by 5 pm on Wednesday, June 11
Week 4	June 13-15	Mid-Term Exam #4 - 50 Questions on powerpoint slides, readings, HW #5 and HW #6	1) Mid-Term Exam 4 completed by 5 pm on Sunday, June 15 2) HW #8 Due by 5 pm on Sunday, June 15
Week 5	June 16-22	Work on research paper and presentation	1) Research paper uploaded by 5 pm on Sunday, June 22 2) Powerpoint presentation uploaded by 5 pm on Sunday, June 22
Week 6	June 23-27	Final Exam - 100 Questions on ALL powerpoint slides, readings, and HW	1) Final Exam completed by 5 pm on Friday, June 27

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

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/policies/responsible-use-of-computing/>].
- 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.

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>].

PROFESSIONAL BEHAVIOR: Students are expected to exhibit professional behaviors and dispositions at all times.

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.

