GEORGE MASON UNIVERSITY  
School of Recreation, Health, and Tourism  

PHED 450-001 — Physiology of Exercise (4)  
Spring 2011

DAY/TIME: T, Th 9:00 – 10:15 a.m.  
T 12:00 – 1:15 p.m.  
LOCATION: Bull Run Hall 248  
Bull Run Hall 249  
PROFESSOR: Dr. Jennifer Guyton  
EMAIL ADDRESS: Jguyton2@gmu.edu  
PHONE NUMBER: 508-801-2575  
OFFICE HOURS: by appointment

PREREQUISITES  
BIOL 124, 125, or BIOL 103, 228; and PHED 300

COURSE DESCRIPTION  
Covers human physiological responses to environmental changes and exercise.

COURSE OBJECTIVES  
Upon successful completion of this course, students will be able to:
1. Obtain a workable theoretical knowledge relative to the human's physiologic responses to and capacity for exercise
2. Apply the principles of exercise physiology to help themselves and others achieve optimum work performance
3. Provide intelligent and factual answers related to the effects of work on the human body
4. Attain knowledge toward understanding current topics in the practice of exercise physiology
5. Demonstrate the ability critically review current research and link findings with those discussed in the lab/seminars

COURSE OVERVIEW  
The material for the lecture portion of this class will be presented in lecture/discussion format. Assessment will include 4 unit examinations for the lecture portion of the class. The lab will consist of article reviews and group-facilitated discussions pertaining to lecture material. Students are responsible for reading an article prior to every lab period and should be prepared to discuss the article during class.

REQUIRED READINGS  
- Articles to be assigned in class. (REQUIRED)
CLASS POLICIES:

✓ Attendance is not required for the lecture, but is imperative for success in this class. The student is responsible for any information presented, discussed and assigned in class regardless of whether or not the student was present. Make-up tests, quizzes, assignments, or other grades will be granted for excused absences only:
  - serious illness (doctor’s note required)
  - official university excused absences (with proper documentation and prior notification)
  - extenuating circumstances (PRIOR approval should be obtained or direct contact made with the instructor within 24 hours of the event)
  - Please be aware that any student who does not attend the lecture during the initial drop/add phase and has not communicated with me is subject to being administratively dropped from the roster. Roll will be taken up until the last day to add a class only and will not be used in grade calculation with the exception of possible extra credit which will be dealt with at the discretion of the instructor.

✓ However, attendance is MANDATORY for the LAB SECTION

✓ When contacting the instructor(s) in reference to class issues via e-mail or other method (for example a note in my mailbox), if you do not receive confirmation that I have received your message, project, etc., within a reasonable time period (2 work days), then I did not get it! In other words, if you do not hear back from me, please follow up to make sure we are communicating effectively!

✓ Please check Blackboard e-mail account prior to coming to class. If I am ill or there is a change in the class location, materials required, or meeting time, I will send an e-mail out via blackboard to all of your Mason student accounts.

All students are expected to conduct their work for this class as spelled out in the George Mason University Honor Code. All class projects are subject to evaluation under plagiarism detection software such as “Turn It In” or “SafeAssign”.

Student employment does not take priority over academic obligations. I recognize that many students need to work in order to meet living expenses, however, there are distinct guidelines for students in terms of the number of credit hours which should be attempted based on how many hours per week a student has outside employment. For additional information on this subject, please see the GMU student handbook.

As per GMU policy, all sound emitting technology is required to be turned off during the class meeting time. No sound emitting technology (e.g., cell phones, smart phones, iPads, Tablets, pagers, etc.) is allowed at any time during the lecture or lab sections. If the professor/instructor identifies any student using a sound emitting technology in any fashion (e.g., text message, phone calls, instant messaging services, or others) the student will be requested to leave the classroom, and it will count as an absence. Additionally, no laptop computers (e.g., netbooks, notebooks, etc.) will be permitted for use during class time; the only exception is for use during presentations and projects and only with instruction permission.
UNIT EXAMS:
There will be 4 unit exams worth 30 points each. Unit exams will be in multiple-choice format. You will need to bring a SCANTRON for the exams. If you do not have a SCANTRON you will be asked to leave the classroom and will not be able to take the exam. Following handing out of exams and any announcements, you will have the remainder of the class period to complete unit examinations. Please return exams promptly when time is called. Students who give prior notification for a university excused absence will be allowed to complete an alternate version of the exam outside of class. Students who miss an exam for what would not be considered a university excused absence or who do not give prior notification of excused absences will not be allowed to take the exam at an alternate time. Exams one – four will be given during normal class times.

EXAM REVIEWS:
As time allows in class and depending on class progress in each unit, a review may be offered before each exam. At that time, students can ask any content question that they would like. Students are not required to participate in the review, and can participate or leave as they choose. If there are no questions related to the content of the unit, the review session will be ended. Whether or not a review is conducted in class depends of class progress through the material for each unit and class participation in previous reviews.

LAB SECTION:

Facilitated Discussion
During the first week of class a lottery will be conducted to assign each student to a future date in which to lead the class in a discussion relating to an article of choice. Each student will select an article pertaining to the topic in physiology that is to be discussed in lecture on the assigned discussion date. The article must be an original research article and not a review article. ALL articles must be submitted for approval by the instructor no later than February 1st. For the discussion in class, each student will present a brief summary of the article and lead the class in a discussion/critique of the article content. Students must provide discussion questions (at least 5) to facilitate dialogue in the classroom among the other students. Each student must turn in the discussion questions as well as answers to all of the questions. In addition, each student will be required to turn in an article review. It should be typed, 12-point font, Times New Roman, 1.5 spaced and should be clearly written with attention paid to paragraph construction, grammar, and content.

The students will be evaluated on how well they:
- Display comprehension of the article
- Lead the class in a thorough discussion
- Engage other students
- Develop interesting discussion questions
- Construct complete answers
- Relate to material from lecture
- Follow the structure of an article review
EVALUATION:
This course will be graded on a point system, with a total of 185 possible points.

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<thead>
<tr>
<th>Requirements</th>
<th>Points</th>
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<tbody>
<tr>
<td>Exam</td>
<td></td>
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<tr>
<td>#1 Control of Internal environment/Bioenergetics</td>
<td>30</td>
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<tr>
<td>#2 Endocrinology</td>
<td>30</td>
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<tr>
<td>#3 Neuromuscular</td>
<td>30</td>
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<tr>
<td>#4 Respiratory and Cardiovascular</td>
<td>30</td>
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<tr>
<td>#5 LAB: Attendance/Participation</td>
<td>20</td>
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<td>#6 LAB: Group Discussion</td>
<td>20</td>
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<tr>
<td>#7 LAB: Article Review (for group discussion)</td>
<td>20</td>
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<tr>
<td>TOTAL</td>
<td>180</td>
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Grading Scale
A+ = 98 – 100  B+ = 88 – 89  C+ = 78 – 79  D = 60 – 69
A  = 94 – 97  B  = 84 – 87  C  = 74 – 77  F  = 0 – 59
A- = 90 – 93  B- = 80 – 83  C- = 70 – 73

TENTATIVE COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Jan 25</td>
<td>Lecture: Syllabus, course intro, and control of Internal environment</td>
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<td>Lab:</td>
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<tr>
<td>Jan 27</td>
<td>Lecture: Bioenergetics</td>
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<td>Feb 1</td>
<td>Lecture: Bioenergetics</td>
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<td></td>
<td>Lab:</td>
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<tr>
<td>Feb 3</td>
<td>Lecture: Exercise Metabolism</td>
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<td>Feb 8</td>
<td>Lecture: Exercise Metabolism</td>
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<td></td>
<td>Lab: Discussion #1</td>
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<tr>
<td>Feb 10</td>
<td>In class review if time allows</td>
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<tr>
<td>Feb 15</td>
<td>Lecture: <strong>Exam I</strong></td>
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<td>Lab: Discussion #2</td>
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<td>Feb 17</td>
<td>Endocrinology</td>
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<tr>
<td>Feb 22</td>
<td>Lecture: Endocrinology</td>
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<td>Lab: Discussion #3</td>
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<tr>
<td>Feb 24</td>
<td>Lecture: Endocrinology</td>
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<tr>
<td>March 1</td>
<td>Lecture: Endocrinology</td>
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<td></td>
<td>Lab: Discussion #4</td>
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Last revised on: January 3, 2011
March 3  Lecture: Endocrinology
March 8  Lecture: Endocrinology, and in class review if time allows
         Lab: Discussion #5
March 10 Lecture: Exam II
March 15 Spring Break – No Class
March 17 Spring Break – No Class
March 22 Lecture: Neuromuscular
         Lab: Discussion #6
March 24 Lecture: Neuromuscular
March 29 Lecture: Neuromuscular
         Lab: Discussion #7
March 31 Lecture: Neuromuscular
April  5 Lecture: Neuromuscular
         Lab: Discussion #8
April  7 Lecture: Neuromuscular, and in class review if time allows
April 12 Lecture: Exam III
         Lab: Discussion #9
April 14 Lecture: Respiratory and Cardiovascular
April 19 Lecture: Respiratory and Cardiovascular
         Lab: Discussion #10
April 21 Lecture: Respiratory and Cardiovascular
April 26 Lecture: Respiratory and Cardiovascular
         Lab: Discussion #11
April 28 Lecture: Respiratory and Cardiovascular
May  3  Lecture: Respiratory and Cardiovascular, and in class
         review if time allows
         Lab: Discussion #12
May  5  Lecture: Exam IV

*Note:* The instructor reserves the right to make changes to the course syllabus and/or schedule at any time. Students will always be informed of any changes made.
Student Expectations

Students must adhere to the guidelines of the George Mason University Honor Code [See http://academicintegrity.gmu.edu/honorcode/].

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].