George Mason University
College of Education and Human Development
Exercise, Fitness and Health Promotion

EFHP 610.DL1 – Advanced Exercise Physiology
3 Credits, Fall 2018
Online

Faculty

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Prerequisites/Corequisites

Graduate standing or permission of the instructor

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

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.

Course Delivery Method

This course will be delivered online (76% or more) using an asynchronous format via Blackboard Learning Management system (LMS) housed in the MyMason portal. You will log in to the Blackboard (Bb) course site using your Mason email name (everything before @masonlive.gmu.edu) and email password. The course site will be available on **Tuesday, September 4, 2018**.

Under no circumstances, may candidates/students participate in online class sessions (either by phone or Internet) while operating motor vehicles. Further, as expected in a face-to-face class

meeting, such online participation requires undivided attention to course content and communication.

Technical Requirements

To participate in this course, students will need to satisfy the following technical requirements:
- High-speed Internet access with a standard up-to-date browser, either Internet Explorer or Mozilla Firefox is required (note: Opera and Safari are not compatible with Blackboard).
- Students must maintain consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course.
- Students will need a headset microphone for use with the Blackboard Collaborate web conferencing tool. [Delete this sentence if not applicable.]
- Students may be asked to create logins and passwords on supplemental websites and/or to download trial software to their computer or tablet as part of course requirements.
- The following software plug-ins for PCs and Macs, respectively, are available for free download: [Add or delete options, as desire.]
    - Adobe Acrobat Reader: https://get.adobe.com/reader/
    - Windows Media Player: https://windows.microsoft.com/en-us/windows/downloads/windows-media-player/
    - Apple Quick Time Player: www.apple.com/quicktime/download/

Expectations

- Course Week:
  Because asynchronous courses do not have a "fixed" meeting day, our week will start on Sunday, and finish on Friday.
- Log-in Frequency:
  Students must actively check the course Blackboard site and their GMU email for communications from the instructor, class discussions, and/or access to course materials *at least 3 times per week*.
- Participation:
  Students are expected to actively engage in all course activities throughout the semester, which includes viewing all course materials, completing course activities and assignments, and participating in course discussions and group interactions.
- Technical Competence:
  Students are expected to demonstrate competence in the use of all course technology. Students who are struggling with technical components of the course are expected to seek assistance from the instructor and/or College or University technical services.
- Technical Issues:
  Students should anticipate some technical difficulties during the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.

- Workload:
  Please be aware that this course is **not** self-paced. Students are expected to meet *specific deadlines* and *due dates* listed in the **Class Schedule** section of this syllabus. It is the student's responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.
- Instructor Support:
  Students may schedule a one-on-one meeting to discuss course requirements, content or other course-related issues. Students can meet with the instructor via telephone or web conference. Students should email the instructor to schedule a one-on-one session, including their preferred meeting method and suggested dates/times.
- Netiquette:
  The course environment is a collaborative space. Experience shows that even an innocent remark typed in the online environment can be misconstrued. Students must always re-read their responses carefully before posting them, so as others do not consider them as personal offenses. *Be positive in your approach with others and diplomatic in selecting your words*. Remember that you are not competing with classmates, but sharing information and learning from others. All faculty are similarly expected to be respectful in all communications.
- Accommodations:
  Online learners who require effective accommodations to insure accessibility must be registered with George Mason University Disability Services.

Learner Outcomes or Objectives

Upon completion of EFHP 610 students should be able to:

1. Describe the responses that occur during exercise in the body's various physiological systems.
2. Describe the physiological changes that occur as a result of aging and explain how these changes affect performance.
3. Explain how gender differences affect performance.
4. Prepare and present research findings on a topic related to a specific area of exercise physiology.
5. Demonstrate the ability to critically review current research and connect findings to topics discussed in class.

Required Texts:

McArdle, W.D., Katch, F.I, and Katch, V.L. (2014). *Exercise Physiology: Nutrition, Energy, and Human Performance, 8ᵗʰ* edition. Lippincott, Williams & Wilkins.

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, Tk20, hard copy).

Assignments and/or Examinations

Written Examinations (4)- *Exams will be T/F, multiple-choice and short answer. Each exam will cover approximate one quarter of the semester's material.*

Research Paper- *Students will write a research paper on a topic of interest. Detailed instructions will be provided in a separate document.*

Quizzes and Assignments- *Periodic quizzes will be assigned throughout the modules.*

Other Requirements

- **Academic Load**
  - o Although many students must work to meet living expenses, employment and personal responsibilities are not acceptable reasons for late arrivals, missed classes, or incomplete assignments. Employment must not take priority over academic responsibilities. For additional information on this subject, please see the GMU Academic Catalog (http://catalog.gmu.edu/content.php?catoid=5&navoid=104#Registration_attendance). Students failing to observe these guidelines should expect no special consideration for academic problems arising from the pressures of employment.
- **Honor Code**
  - o 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.
- **E-mail Correspondence**

  Only messages that originate from a George Mason University address will be accepted. Please address the subject line for all email pertaining to this course as: *EFHP 618: Last Name – purpose of email.* The following is an appropriate professional format:

  Subject: EFHP 610: Help with (fill in blank)

  Dear Dr. DiNallo, *(Introductory salutation)*

  I have a question regarding one of the assignments. *(Text body)*

  Regards, *(Ending Salutation)*

  Mr./Mrs. Student *(Your name)*

  Note: All email will be responded to in the order in which it is received. Students should allow 48 hours for a response.

Course Performance Evaluation Weighting

Written Examinations	65%
Research Paper	15%
Quizzes and Assignments	20%

Grading

Assignment	Grading	My Grades
Written Examinations	Exams are worth 500 total points (50% of total grade)	Exam 1 _____/ 125 points Exam 2 _____/ 125 points Exam 3 _____/ 125 points Exam 4 _____/ 125 points **Total _____/ 500 points**
Research Paper	The research paper is worth 150 points (15% of total grade).	**Total _____/ 150 points**
Quizzes & Assignments	Quizzes and Assignments are worth 350 total points (35% of total grade).	Assignment 1: _____ / 25 pts Assignment 2: _____ / 25 pts Assignment 3: _____ / 25 pts Assignment 4: _____ / 25 pts Pre-test 1 (Quiz): _____ / 25 pts Pre-test 2 (Quiz): _____ / 25 pts Pre-test 3 (Quiz): _____ / 25 pts Pre-test 4 (Quiz): _____ / 25 pts Pre-test 5 (Quiz): _____ / 25 pts Pre-test 6 (Quiz): _____ / 25 pts Pre-test 7 (Quiz): _____ / 25 pts Pre-test 8 (Quiz): _____ / 25 pts Pre-test 9 (Quiz): _____ / 25 pts Pre-test 10 (Quiz): _____ / 25 pts **Total _____/ 350 points**
Extra-credit Assignments. These opportunities may include class participation, written assignments, and bonus questions on the examinations.	TBD.	TBD.
	Total Grade/1000 points = _____%	

Quality of Performance	Grade	Points
Excellent - Exceptional Achievement	A A-	940-1000 900-939
Good - Substantial Achievement	B+ B B- C+	880-899 840-879 800-839 780-799
Satisfactory - Acceptable but Substandard Achievement	C	700-779
Poor/Failure - Inadequate Achievement	*D	600-699

Failure (To secure credit, course must be repeated and successfully passed.)	**F	<600	

Note: * Although a B- is a satisfactory grade for a course, students must maintain a 3.00 average in their degree program and present a 3.00 GPA on the courses listed on the graduation application.

Professional Dispositions

Students are expected to exhibit professional behaviors and dispositions at all times.
See https://cehd.gmu.edu/students/polices-procedures/

Class Schedule

- All new information for each week will be uploaded by Sunday night at 10pm. This is an asynchronous online course, and as such, students are expected to check status and updates on email and on Blackboard at least three times/week.

Week	Topic	Readings/Assignments
1- 9/4/18	Introduction, Energy	Pre-test (Quiz) Read Chapter 5
2- 9/10/18	ATP, Phosphagen System, Carbohydrate Metabolism	Assignment Due Pre-test (Quiz) Read Chapters 6 & 7
3- 9/17/18	Fat and Protein Metabolism	Pre-test (Quiz)Chapters 6 & 7
4- 9/24/18	**Exam 1**	
5- 10/1/18	The Cardiovascular System, Functional Capacity of the Cardiovascular System	Assignment Due Pre-test (Quiz) Chapter 15 & 17
6- 10/8/18	Functional Capacity of the Cardiovascular System, Cardiovascular Regulation and Integration	Pre-test (Quiz) Chapter 16
7- 10/15/18	Pulmonary	Pre-test (Quiz) Chapters 12, 13 & 14
8- 10/22/18	**Exam 2**	
9- 10/29/18	Skeletal Muscle and Nerve Structure, Muscle Contraction	Assignment Due Pre-test (Quiz) Chapters 18 & 19
10- 11/5/18	Muscle Contraction, Muscle Fiber Types, Muscle Adaptations	Pre-test (Quiz) Chapters 19 & 22
11- 11/12/18	**Exam 3**	
12- 11/18/18	Soreness and Fatigue	Assignment Due Pre-test (Quiz) Chapter 25

13- 11/28/18	Recovery from Exercise	Pre-test (Quiz) Chapter 7
14- 12/3/18	**Exam 4**	Research Paper Due?

Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.

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: http://cehd.gmu.edu/values/.

GMU Policies and Resources for Students

Policies

- Students must adhere to the guidelines of the Mason Honor Code (see http://oai.gmu.edu/the-mason-honor-code/).

- 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 Mason 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 with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see http://ods.gmu.edu/).

- Students must follow the university policy stating that all sound emitting devices shall be silenced during class unless otherwise authorized by the instructor.

Campus Resources

- Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or https://cehd.gmu.edu/api/tk20. Questions or concerns regarding use of Blackboard should be directed to http://coursessupport.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/).

- 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 Office of Student Support staff helps students negotiate life situations by connecting them with appropriate campus and off-campus resources. Students in need of these services may contact the office by phone (703-993-5376). Concerned students, faculty and staff may also make a referral to express concern for the safety or well-being of a Mason student or the community by going to http://studentsupport.gmu.edu/, and the OSS staff will follow up with the student.

For additional information on the College of Education and Human Development, please visit our website https://cehd.gmu.edu/students/ .