

KINE 442 - Exercise Physiology

Fall 2018 MWF 10:00-10:50 AM Morton 20

Professor: M. Brennan Harris, Ph.D.
Telephone: 221-2757
E-mail: mbharr@wm.edu

Office: Adair 110
Office Hours: MW 11 AM -12 PM
or by appt.

Course Description

An in-depth study of the physiological response to both acute and chronic exercise focusing on the neural, hormonal, and humoral factors that regulate the responses of the musculoskeletal, cardiovascular, pulmonary and renal systems; functional tests with normal and abnormal subjects; investigations and independent readings.

Objectives

Upon successful completion of this course, the student will be able to:

1. Demonstrate an understanding of the relationship between nutrition and human performance
2. Describe how energy is transferred within the body in order to perform muscular work.
3. Calculate energy expenditure.
4. Describe oxygen delivery, utilization, transport and consumption during exercise.
5. Demonstrate and understanding of how physical training improves health and human performance.
6. Describe how the environment affects the physiological response to exercise.
7. Demonstrate an understanding of body composition.
8. Demonstrate an understanding of how age and other conditions affect the physiological response to exercise.
9. Describe and perform current techniques used to evaluate the physiologic and metabolic responses to exercise.
10. Demonstrate and integrated understanding of the physiological response to exercise.

Course Evaluation

The student's final grade will be determined as follows:

Exam #1	= 20%
Exam#2	= 20 %
Exam#3	= 20%
Lab	= 20%
Final Exam	= 20%

Tuesday, December 11th, 2:00-5:00 PM

Required Textbook

Kraemer, W. J., Fleck, S. J., & Deschenes, M. R. (2015). *Exercise physiology: integrating theory and application, 2e*. Lippincott Williams & Wilkins