

HPER 6700 Exercise Physiology I

Fall 2009
Western Michigan University
Department of HPER

Instructor: Timothy J. Michael, Ph.D., FACSM
Office: 1052 SRC
Phone: 387-2691
Email: tim.michael@wmich.edu
Home Page: <http://homepages.wmich.edu/~tmichael/>
Room: SRC 1035
Hours: Wednesday 6:00 – 8:30
Credit hours: 3

Required Text: Exercise Physiology: Energy, Nutrition, & Human Performance 6th Edition. (2007) Lippincott, Williams and Wilkins.

Course Description: This course is the first of a series of two courses that will give the graduate student a much more in-depth study of the various physiological processes and how they are transformed and manipulated by external stresses (i.e., work, exercise, disease, environment etc...)

Course Objectives: Upon completion of this first course of the sequence, students will be able to:

- understand and explain the nutritional bases of human performance in relation to the underlying physiological processes that regulate energy production and recovery.
- understand and explain bioenergetics of human movement
- understand and explain metabolism of carbohydrates, lipids and protein during physical activity
- understand and explain the metabolic processes during and following physical activity
- understand and explain energy balance and body composition
- understand and explain the impact of exercise on disease processes and aging.

Course requirements:

1. Exams
2. Assignments
3. Attendance
4. Readings

Grading:

Exam 1	25%
Exam 2	25%
Exam 3	25%
Critiques	25%

Grading Scale:

100-92	A
91-87	BA
86-83	B
82-78	CB
77-70	C
69-65	DC
64-60	D
59-0	E

Course Content:

Chapters

Content

Chapters 1, 2, 3, 4, 5

Nutritional bases of Exercise Physiology

Exam I (October 7th)

Chapters 6, 7, 8, 9, 10, 11

Bioenergetics: Processes, Measurement and Individual Differences

Exam II (November 11th)

Chapters 28, 29, 30, 31, 32

Body Composition, Clinical Exercise Physiology: Health and Disease

Exam III (December 16th)

Critiques:

Two pages, only two pages, no longer.

Any critiques over two pages will be assigned a grade of "0".

Double spaced, 1 inch margins all around.

Times new roman or courier font size 12.

First page is a summary of the article.

Second page is your review of the article (What was good? Bad? Confusing?

What did you learn? Etc...).

A copy of the article should be stapled to the back of the critique.

Article chosen should be about what was recently discussed about in lecture.

Due dates are:

- 1- September 16th
- 2- September 30th
- 3- October 14th
- 4- October 28th
- 5- November 4th
- 6- November 18th
- 7- December 2nd

Examples of research journals that contain exercise physiology articles

- Acta Physiologica Scandinavica
- American Journal of Clinical Nutrition
- American Journal of Human Biology
- American Journal of Physiology
- American Journal of Sports Medicine
- Aviation and Environmental Medicine
- British Journal of Nutrition
- British Journal of Sports Medicine
- Journal of Clinical Endocrinology and Metabolism
- Journal of Applied Physiology
- Journal of Physiology
- European Journal of Applied and Occupational Physiology
- Canadian Journal of Applied Physiology
- European Journal of Applied Physiology
- International Journal of Sports Medicine
- Journal of Physical and Medical Rehabilitation
- Journal of Sports Medicine and Physical Fitness
- Journal of Strength and Conditioning Research
- Journal of the American Medical Association
- Journal of Sports Medicine
- Medicine and Science in Sport and Exercise
- Physician and Sports Medicine
- Research Quarterly for Exercise and Sports
- Pediatric Exercise Science
- Nutrition and Metabolism
- Exercise Physiology Journal (online)
- Journal of Sport Science and Medicine (online)
- Lancet
- New England Journal of Medicine

Things to Remember:

-This outline/Syllabus is subject to change.

-Grades are "earned" not "given"

-No Extra Credit! So don't ask for it.

-Attendance is not factored into your grade; however, failure to attend class will almost certainly guarantee poor performance on exams and assignments.

-If you do not understand something, then find-out! Come and see me, ask questions, do not wait until it is too late.

-All written work must be typed. Assignments will be assessed a 25% penalty/day late. No make-up exams will be given, unless arrangements are made prior to the exam or verifiable medical excuse is provided.

You are responsible for making yourself aware of and understanding the policies and procedures in the Undergraduate and Graduate Catalogs that pertain to Academic Honesty. These policies include cheating, fabrication, falsification and forgery, multiple submission, plagiarism, complicity and computer misuse. [The policies can be found at www.wmich.edu/catalog under Academic Policies, Student Rights and Responsibilities.] If there is reason to believe you have been involved in academic dishonesty, you will be referred to the Office of Student Conduct. You will be given the opportunity to review the charge(s). If you believe you are not responsible, you will have the opportunity for a hearing. You should consult with me if you are uncertain about an issue of academic honesty prior to the submission of an assignment or test.

(The Code of Honor passed by the Faculty Senate in November 2004 and administration in December 2004, can also be found at www.wmich.edu/catalog.)