



HPK 450 – Exercise Physiology Spring 2015

Instructor: Dr. Vipa Bernhardt, Assistant Professor
Office: Field House 006
Office Hours: TR 1:00-2:00 or by appointment
E-mail: Vipa.Bernhardt@tamuc.edu
Class Meeting Time: TR 11:00-12:15, Field House 003
Lab Meeting Time: T 2:00-3:15 or R 2:00-3:15 (Stephen Ford)

COURSE INFORMATION

Required Text

Powers & Howley. *Exercise Physiology: Theory and Application to Fitness and Performance*. 8th edition. McGraw-Hill.

Course Description

Topics include neural control during physical activity, skeletal muscle contraction, pulmonary and circulatory physiology, gas exchange and transport, aerobic and anaerobic energy sources for muscular activity, temperature regulation during exercise, body composition and weight control. Prerequisites: BSc 251 and 252.

Learning Objectives

1. Examine procedures in conducting various exercise physiology measurements.
2. Explore the mechanisms of energy metabolism during exercise.
3. Examine the neural control of movement.
4. Explore the responses to exercise on the respiratory and cardiovascular systems.
5. Study the effects of hot/cold temperature, altitude, ergogenic aids on performance.
6. Create a specific exercise prescription based on ACSM guidelines.

COURSE REQUIREMENTS

Quizzes and attendance

Unannounced quizzes may be given at the beginning of class. No make-up quizzes will be given, so be in class and on time. Some activities/quizzes will be graded, and some will not. Student attendance will be averaged into this category.

Tests

There are four (4) exams throughout the semester worth 100 points each. Exams will cover lectures, class activities, and the book.

Article Summaries

Each student will be required to write four (4) summaries of exercise physiology articles. Articles should be from journals such as *Medicine and Science in Sports & Exercise*, *Athletic Training*, etc. See rubric for specific requirements and formatting.

Exercise Prescription

Students will create a detailed exercise prescription based on a case study and information learned throughout the course. Case studies will be handed out in class on April 16th (tentative). Assignment with specific requirements and formatting will be posted online. Written exercise prescriptions are due on May 5th.

Laboratory

You must attend all labs. All lab write-ups are required and are due at the beginning of the next lab. The lab graduate assistant will conduct all labs, assign and collect homework, give quizzes, etc.

Course Grading:

1. Quizzes	15%
2. Tests (4)	40%
3. Article Summaries (4)	10%
4. Exercise Prescription (1)	10%
5. Labs	25%
Total:	100%

Grading Scale:	100 – 90%	A
	89 – 80%	B
	79 – 70%	C
	69 – 60%	D
	59 – 0%	F

TECHNOLOGY REQUIREMENTS

The following information on technological requirements has been provided to assist you in preparing to use technology successfully in this course. You should have access to a computer with:

- Internet access/connection – high speed recommended (not dial-up)
- Microsoft Office (more specifically, MS Word and PowerPoint)

You also have access to a personal MyLeo account and a MyLeo email address. This is the email address that I will use to send you information regarding this course. Please check it regularly, and be sure to send me emails from this address, also.

ACCESS AND NAVIGATION

This course will be facilitated using eCollege, the Learning Management System used by Texas A&M University-Commerce. To get started with the course, go to: <https://leo.tamuc.edu/login.aspx>. You will need your CWID and password to log in to the course. If you do not know your CWID or have forgotten your password, contact Technology Services at 903.468.6000 or helpdesk@tamuc.edu.

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement:

The best way to reach me is via email (Vipa.Bernhardt@tamuc.edu) as I check it frequently. I will reply within 24 hours to your MyLeo email address. Please be courteous and professional in all of your interactions with me and fellow students.

eCollege Student Technical Support

Texas A&M University-Commerce provides students technical support in the use of eCollege. The student help desk may be reached by the following means 24 hours a day, seven days a week.

- Chat Support: Click on 'Live Support' on the tool bar within your course to chat with an eCollege Representative.
- Phone: 1-866-656-5511 (Toll Free) to speak with eCollege Technical Support Representative.
- Email: helpdesk@online.tamuc.org to initiate a support request with eCollege Technical Support Representative.
- Help: Click on the 'Help' button on the toolbar for information regarding working with eCollege (i.e. How to submit to Dropbox, How to post to Discussions etc...)

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course specific procedures:

- Classes will start promptly. Students are expected to be in class, seated, on time.
- Regular attendance is mandatory. University absences will be handled on an individual basis and should be dealt with **prior** to the date of absence. If you have a University or a legal excuse for an absence, you must inform the instructor prior to the start of class. Should you miss a lecture, you must obtain lecture notes from other students as exam questions will come from lectures, texts, selected readings, discussions, and handouts.
- Please see syllabus for due dates on all assignments. Late assignments will incur a 10% point deduction per day late.
- Students are expected to actively participate during each class period.

Academic Honesty Policy

Texas A&M University-Commerce does not tolerate plagiarism and other forms of academic dishonesty. Conduct that violates generally accepted standards of academic honesty is defined as academic dishonesty. "Academic dishonesty" includes, but is not limited to, plagiarism (the appropriation or stealing of the ideas or words of another and passing them off as one's own), cheating on exams or other course assignments, collusion (the unauthorized collaboration with others in preparing course assignments), and abuse (destruction, defacing, or removal) of resource material. Be aware that the intent to deceive the reader does not have to be present for plagiarism to occur. For more information, please go to <http://www.plagiarism.org/>. If you are in any doubt as to whether your work constitutes plagiarism or academic dishonesty, please discuss this with me confidentially.

How to succeed in this class:

1. Be in class every day, with your cell phone off and your brain engaged!
2. Study the assigned material before every class!
3. Do quality work!
4. Take responsibility for your own grade; I do not give you a grade—you earn a grade.
5. Study the material at least two hours for every hour in class, more if it's not sinking in!
6. No excuses, just results!

University specific procedures

Student Conduct

This course will cover topics related to health and human performance. Students may have widely differing views. Students should feel comfortable discussing their individual views and experiences concerning each subject. Students should also respect each other's differences and points of view. If the instructor deems that individual students are not being respectful toward each other or the instructor, then these students will be asked to drop the course. Please refer to pages 42–45 of the TAMU-C Students'

Guidebook Codes of Conduct for details. All students enrolled at the university shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See Code of Student Conduct from Student Guide Handbook).

ADA statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamuc.edu

A&M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

TENTATIVE COURSE OUTLINE

This schedule is tentative and is subject to change.

Date	Chapters	Class Content	Assignments due
01/20	0	Syllabus and Intro	
01/22	1	Work, power, energy expenditure	
01/27	2	Control of the internal environment	
01/29	3	Bioenergetics	
02/03	4	Exercise metabolism	
02/05	18	Body composition & nutrition	Article summary 1
02/10		Obesity & weight control	
02/12		Review	
02/17		TEST 1	
02/19	7	Nervous system	
02/24	7	Nervous system	
02/26	8	Skeletal muscle	Article summary 2
03/03	8	Skeletal muscle	
03/05		Muscular strength training	
03/10		Review	
03/12		TEST 2	
03/17		Spring break – no class	
03/19		Spring break – no class	
03/24	10	Respiratory system	
03/26	10	Respiratory system	Article summary 3
03/31	9	Cardiovascular system	
04/02	9	Cardiovascular system	
04/07		Cardiorespiratory training	
04/09		Review	
04/14		TEST 3	
04/16	16	Exercise prescription	
04/21	19	Factors affecting performance	Article summary 4
04/23	21	Training for performance	
04/28	12	Thermoregulation	
04/30	24	Exercise at Altitude	Exercise prescription
05/05	25	Ergogenic aids	
05/07		Review	
		FINAL EXAM	

