



## **HHPK 450.01E EXERCISE PHYSIOLOGY**

COURSE SYLLABUS: Spring 2026

### **INSTRUCTOR INFORMATION**

<b>Instructor:</b>	Elizabeth McMahan, MS
<b>Office Location:</b>	None
<b>Office Hours:</b>	As needed
<b>Email Address:</b>	elizabeth.mcmahan@etamu.edu
<b>Class Meeting Time:</b>	TR 12:30-1:45, NHS 163
<b>Lab Meeting Time:</b>	T or R 2:00-3:15, NHS 165 (TA: Karla Pegueros, Bronwyn Banks)

### **COURSE INFORMATION**

#### **Textbook Required**

Powers & Howley. Exercise Physiology-Connect Access. 12th edition. McGraw-Hill. ISBN: 9781264529810.

You are required to purchase McGraw-Hill Education Connect access. Connect access includes the eBook / Inclusive Access. Note that if you purchase a used textbook you will still need to purchase Connect access to complete required assignments.

To access Connect, begin by purchasing the Connect code either online directly

<http://connect.mheducation.com/class/bernhardt-hhpk450-spring2020> or from the ETAMU

bookstore. You'll be prompted to either log in with an existing Connect account username and password, or to create a new account.

#### **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 2401 and 2402 with C or better. 2.5 minimum GPA required. Corequisites: HHPK 450L.

*The syllabus/schedule are subject to change.*

## Student Learning Outcomes

1. Examine experimental procedures of laboratory measurements common in exercise physiology.
2. Understand the respiratory and cardiovascular responses to exercise.
3. Examine the neural control of movement.
4. Understand the mechanisms of energy metabolism during exercise.
5. Compare and contrast the effects of internal and external factors on sport performance (e.g., temperature, dehydration, altitude, ergogenic aids).
6. Write a literature review of a chosen special population or disease process.

## COURSE REQUIREMENTS

### Student Responsibilities or Tips for Success in the Course

- Make good use of the Connect access resources.
- Study the assigned material **before** class! That way you can ask questions in class about something you had difficulties understanding.
- Ask questions!
- Take notes in class.
- Study the material at least two hours for every hour in class. More, if it doesn't sink in.
- Take responsibility for your own grade; I do not give you a grade—you earn a grade.
- No excuses, just results!

## GRADING

Final grades in this course will be based on the following scale:

A = 90%-100%

B = 80%-89%

C = 70%-79%

D = 60%-69%

F = 59% or Below

1. Exams (5 x 80 pts)	40%
2. Quizzes (6 x 20 pts)	12%
3. Connect Previews/Reviews (10 x 10 pts)	10%
4. Review Paper (100 pts)	10%
5. In-class Participation (30 pts)	3%
6. Lab (250 pts)	25%
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Total (1,000 pts)	100%

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## Assessments

### **Exams**

There will be five (5) exams: four during the semester and one final exam. All exams are worth 80 points towards the total score of 1,000 potential points. The final exam will be cumulative. Exams will cover lectures, Connect Previews/Reviews, class activities, and the textbook. Aligns with SLOs #2,3,4,5.

### **Quizzes**

Quizzes will be given at the beginning of class. Quizzes may cover material from previous lectures or homework assignments. Six of the seven scheduled quizzes will count towards the final grade; the lowest quiz score will be dropped. Aligns with SLOs #2,3,4,5.

### **Previews/Reviews via McGraw-Hill Connect Access**

There will be 11 LearnSmart previews/reviews within the McGraw-Hill Connect online access, including both reading and practicing the material learned in each chapter. The lowest score will be dropped. To access Connect within D2L, click on the McGraw Hill Connect module. Aligns with SLOs #2,3,4,5.

### **Special population/Disease process review paper**

Students will create a detailed literature review based on a disease process and information learned throughout the course. The purpose of this assignment is to critically review and synthesize current research on a specific disease process or special population, with a focus on how exercise or physical activity influences health outcomes. The assignment with specific requirements will be handed out in class. The diagnosis chosen by each student must be approved by the professor via email. This paper is due in D2L under the assignments tab on the due date. All papers must be turned in via Turn-It-In. There will be more details for the assignment handed out in class. Aligns with SLO #6.

### **Participation**

Students are expected to ask relevant questions and actively engage in group and class discussions. This is only for participation in the lecture, lab participation is scored separately.

### **Laboratory**

**You must attend all labs.** The lab is a hands-on learning experience to strengthen the information learned during lectures. The lab graduate assistant will conduct all labs, assign and collect homework, give quizzes, exams, practical exams, etc. See the separate lab syllabus for specifics. Aligns with SLO #1.

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## TECHNOLOGY REQUIREMENTS

### Browser support

D2L is committed to performing key application testing when new browser versions are released. New and updated functionality is also tested against the latest version of supported browsers. However, due to the frequency of some browser releases, D2L cannot guarantee that each browser version will perform as expected. If you encounter any issues with any of the browser versions listed in the tables below, contact D2L Support, who will determine the best course of action for resolution. Reported issues are prioritized by supported browsers and then maintenance browsers.

Supported browsers are the latest or most recent browser versions that are tested against new versions of D2L products. Customers can report problems and receive support for issues. For an optimal experience, D2L recommends using supported browsers with D2L products.

Maintenance browsers are older browser versions that are not tested extensively against new versions of D2L products. Customers can still report problems and receive support for critical issues; however, D2L does not guarantee all issues will be addressed. A maintenance browser becomes officially unsupported after one year.

Note the following:

- Ensure that your browser has JavaScript and Cookies enabled.
- For desktop systems, you must have Adobe Flash Player 10.1 or greater.
- The Brightspace Support features are now optimized for production environments when using the Google Chrome browser, Apple Safari browser, Microsoft Edge browser, Microsoft Internet Explorer browser, and Mozilla Firefox browsers.

### Desktop Support

Browser	Supported Browser Version(s)	Maintenance Browser Version(s)
Microsoft® Edge	Latest	N/A
Microsoft® Internet Explorer®	N/A	11
Mozilla® Firefox®	Latest, ESR	N/A
Google® Chrome™	Latest	N/A
Apple® Safari®	Latest	N/A

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## Tablet and Mobile Support

Device	Operating System	Browser	Supported Browser Version(s)
Android™	Android 4.4+	Chrome	Latest
Apple	iOS®	Safari, Chrome	The current major version of iOS (the latest minor or <b>point</b> release of that major version) and the previous major version of iOS (the latest minor or <b>point</b> release of that major version). For example, as of June 7, 2017, D2L supports iOS 10.3.2 and iOS 9.3.5, but not iOS 10.2.1, 9.0.2, or any other version.  Chrome: Latest version for the iOS browser.
Windows	Windows 10	Edge, Chrome, Firefox	Latest of all browsers, and Firefox ESR.

- You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
  - 512 MB of RAM, 1 GB or more preferred
  - Broadband connection required courses are heavily video intensive
  - Video display capable of high-color 16-bit display 1024 x 768 or higher resolution
- You must have a:
  - Sound card, which is usually integrated into your desktop or laptop computer
  - Speakers or headphones.
  - \*For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.
- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning management system. The most current version of Java can be downloaded at: [JAVA web site](http://www.java.com/en/download/manual.jsp)  
<http://www.java.com/en/download/manual.jsp>
- Current anti-virus software must be installed and kept up to date.

Running the browser check will ensure your internet browser is supported.

Pop-ups are allowed.

JavaScript is enabled.

Cookies are enabled.

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- You will need some additional free software (plug-ins) for enhanced web browsing. Ensure that you download the free versions of the following software:
  - [Adobe Reader](https://get.adobe.com/reader/) <https://get.adobe.com/reader/>
  - [Adobe Flash Player](https://get.adobe.com/flashplayer/) (version 17 or later) <https://get.adobe.com/flashplayer/>
  - [Adobe Shockwave Player](https://get.adobe.com/shockwave/) <https://get.adobe.com/shockwave/>
  - [Apple Quick Time](http://www.apple.com/quicktime/download/) <http://www.apple.com/quicktime/download/>
- At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.

## ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or [helpdesk@etamu.edu](mailto:helpdesk@etamu.edu).

**Note:** Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a ETAMU campus open computer lab, etc.

## COMMUNICATION AND SUPPORT

### Brightspace Support

Need Help?

Student Support

If you have any questions or are having difficulties with the course material, please contact your Instructor

### Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778 or click on the **Live Chat** or click on the words “[click here](#)” to submit an issue via email.



### System Maintenance

Please note that on the 4th Sunday of each month there will be System Maintenance which means the system will not be available 12 pm-6 am CST.

### Interaction with Instructor Statement

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My response time to emails may be as long as 48 hours. Please be patient. Grades for assignments will be posted no later than 1 week after the submission deadline.

### Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

### COURSE POLICIES

- A. **LATE ASSIGNMENTS: Late assignments will NOT be accepted.** All assignments are due at the beginning of class on the date they are due. If you know that you will not be able to attend class on a day that an assignment is due, please let me know and make plans to turn in the assignment before the due date. All assignments turned in after the due date will be considered late.
- B. **CLASS ATTENDANCE: Attendance to these sessions is not mandatory, BUT HIGHLY ADVISED.** This class is exceptionally difficult to try and navigate on your own. Questions will be directed to the class and individuals. **BE PREPARED TO ANSWER.**
- C. **Any student missing an exam or assignment without prior arrangement will receive a score of zero.**
- D. You MUST check your e-mail regularly in case I need to communicate with you. I will not e-mail you junk, and I request that you do the same for me. You may only use your university email. No private email addresses will be included in the group message system.

### University Specific Procedures

#### Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.

<http://www.etamu.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: Netiquette

<http://www.albion.com/netiquette/corerules.html>

#### ETAMU Attendance

For more information about the attendance policy please visit the Attendance webpage and Procedure 13.99.99.R0.01.

<http://www.etamu.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.etamu.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

#### Academic Integrity

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Students at East Texas A&M University are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

#### Undergraduate Academic Dishonesty 13.99.99.R0.03

<http://www.etamu.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

#### Graduate Student Academic Dishonesty 13.99.99.R0.10

<http://www.etamu.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>

**PLAGIARISM/ACADEMIC DISHONESTY:** East Texas A&M University 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.**

**STUDENTS WITH DISABILITIES:** 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, the 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

East Texas A&M University  
Gee Library, Room 132  
Phone (903) 886-5150 or (903) 886-5835  
Fax: (903) 468-8148  
[StudentDisabilityServices@etamu.edu](mailto:StudentDisabilityServices@etamu.edu)

#### Nondiscrimination Notice

East Texas A&M University 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.

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### **Campus Concealed Carry**

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in East Texas A&M University buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to (<http://www.etamu.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

**The Counseling Center at East Texas A&M, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit [www.etamu.edu/counsel](http://www.etamu.edu/counsel)**

### **Mental Health and Well-Being**

The university aims to provide students with essential knowledge and tools to understand and support mental health. As part of our commitment to your well-being, we offer access to Telus Health, a service available 24/7/365 via chat, phone, or webinar. Scan the QR code to download the app and explore the resources available to you for guidance and support whenever you need it.



## **AI Use in Courses**

East Texas A&M University acknowledges that there are legitimate uses of Artificial Intelligence, Chatbots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course. Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism). Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty 13.99.99.R0.10 Graduate Student Academic Dishonesty

## TENTATIVE COURSE OUTLINE / CALENDAR

Week	Chapters	Class Content	Assignments due
1		Syllabus and Intro	
	15	Exercise is Medicine-Part 1: Prevention of Chronic Diseases	
2	3	Bioenergetics	Smart book 3
	3	Bioenergetics	
3	4	Exercise Metabolism	Quiz 1
	15,3,4	Review	
4		<b>EXAM 1</b>	
	10	Respiratory during Exercise	Smart book 10
5	10	Respiratory during Exercise	
	9	Circulatory Responses to Exercise	Quiz 2, Smart book 9
6	9	Circulatory Responses to Exercise	
	13	The Physiology of Training: Effects of Aerobic & Anaerobic Training	
7	16	Exercise Is Medicine Part 2: Exercise for chronic disease and prevention of age-related physiological dysfunction	Smart book 13, & 16
	10, 9, 13, 16	Review	Quiz 3
8		<b>EXAM 2</b>	
	8	Skeletal Muscle: Structure and Function	Smart book 8
9	8	Skeletal Muscle: Structure and Function	
	7	The Nervous System: Structure & Control of Movement	Quiz 4, Smart book 7
10	7	The Nervous System: Structure & Control of Movement	
	14	The Physiology of Resistance Training	Quiz 5
11	20	Training for Performance	
	8,7,14, 20	Review	
12		<b>EXAM 3</b>	
	5	Cell Signaling and the Hormonal Responses to Exercise	Smart book 5
13	21	Training for the Female Athlete, Children, Special Populations, & the Masters Athlete	
	18	Nutrition, Body Composition, and Weight Management	Quiz 6, Smart book 18

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14	23	Exercise and the Environment	Smart book 23 &24
	24	Ergogenic aids	
15		Review	Quiz 7
		<b>EXAM 4</b>	
16		<b>FINAL EXAM</b>	<i>See university website for date and time</i>

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