

Exercise Physiology

EXSC - 2250 001

Course Description

The purpose of this course is to examine the physiological basis of exercise. The focus will be on the energy systems necessary for human movement, and the acute responses and chronic adaptations of the neuromuscular, endocrine, cardiovascular, and respiratory systems when exposed to the stress of exercise.

Pre-Requisite(s): EXSC 2500 or BIOL 1610

Semester(s) Taught: Fall, Spring

Course Student Learning Outcomes

- Explain the importance of exercise physiology as it relates to health, physical fitness, and athletic performance.
- Evaluate current research for reliability, validity, and application in the context of exercise physiology.
- Describe the energy systems of the body and classify each according to its contribution to differing durations and intensities of exercise.
- Describe muscle structure and function and illustrate how the muscular system produces human movement.
- Describe the structure and function of the body systems involved in exercise (neural, endocrine, cardiovascular, and respiratory).
- Compare acute responses and long-term adaptations to the stress imposed by exercise.

- Apply exercise physiology concepts explored in lecture in a laboratory/practical setting.

Course Prerequisites

EXSC 2500 or BIOL 1610

Engagement Plan

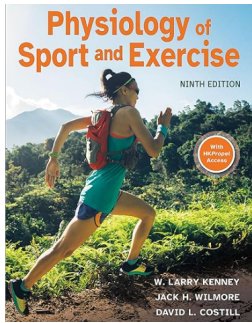
- I will respond to email within 24-48 hours during the work week. The best way to contact me is via the Canvas Inbox, as I will prioritize this email over other modes of communication.
- In this course I will be posting weekly announcements which will offer specific information for the week.
- I will offer feedback on major assignments within one week of submission.

Keys for Success (how to succeed in the course)

- Your first step to success in this course is to read the syllabus thoroughly.
- Actively participate in class by reading announcements, completing assignments, and participating in discussions/activities with your classmates. Consistent logging into Canvas and a good attitude are the best ways to get a great grade!
- Complete assignments by the set due dates. *Note: Once an assignment is locked, submissions will not be accepted without prior approval. There will be a 5% point deduction for each day late after the due date up to 7 days. After this point, the assignment will lock and will not be reopened. Plan ahead and get work done in advance as much as possible before leaving on vacation or facing anticipated life events. Most assignments are open 1-2 weeks prior to the due date.
- Writing all due dates on your calendar and putting reminders in your phone can help you stay on track.
- This course is set up in section modules. Each will give you information on the topic we are focusing on, opportunities to test your knowledge (quizzes and exams),

assignments to show you are meeting the Course Learning Outcomes, and discussions/activities where you will interact with your classmates.

Required Text or Materials



Title: Physiology of Sport and Exercise

ISBN: 9781718228481

Authors: W. Larry Kenney, Jack H. Wilmore, David L. Costill

Publisher: Human Kinetics

Publication Date: 2024-10-14

Edition: 9th

For more information on textbook accessibility, contact Accessibility & Disability Services at ads@slcc.edu.

Course Schedule

This class meets for 3 lecture/lab hours per week. Please see class Calendar for a detailed schedule.

Course Topics:

- Introduction to Exercise Physiology and Research
- Common Measurements in Exercise Physiology
- Control of the Internal Environment
- Structure and Function of Exercising Muscle
- Bioenergetics: Fueling Exercise
- Neural Control of Exercising Muscle
- Hormonal Control During Exercise
- Energy Expenditure and Exercise Metabolism
- Fatigue
- The Cardiovascular System During Exercise

- The Respiratory System During Exercise
- Principles of Training
- Adaptations from Training
- Exercise Prescription for Health
- Environmental Influences on Performance

Brief Description of Assignments/Exams

Assessments and Point Values

Assessment*	Points Possible
Topic Quizzes (15 x 10 points each – lowest score dropped)	140
Exams: (300 points total)	
Exam 1 – Multiple Choice, T/F, Short Answer	50
Exam 2 – Multiple Choice, T/F, Short Answer	50
Exam 3 – Multiple Choice, T/F, Short Answer	50
Exam 4 – Multiple Choice, T/F, Short Answer	50
Final Exam (cumulative) – Multiple Choice, T/F	100
Lab Worksheets (6 x 25 points each – lowest score dropped)	125
Library Research Quiz	15
Research Article Summary Papers (3 x 25 points each)	75
In-class activities & assignments TBD	TBD
Extra credit opportunities TBD	TBD
Approximate Total	655

Assignment Schedule

Due Date	Assignment Name	Assignment Type	Points
	Any Questions?: Getting Started	Discussion	0

Due Date	Assignment Name	Assignment Type	Points
	Any Questions?: Introduction	Discussion	0
8/27/25	Introductions	Assignment	10
9/3/25	Syllabus Reconnaissance	Assignment	10
9/5/25	Courses Taken	Quiz	0
9/5/25	Practice Uploading an Assignment - Extra Credit	Assignment	0
9/11/25	Introduction Quiz	Quiz	10
9/12/25	Beginning of Course Survey - Extra Credit	Quiz	0
9/12/25	Library Research Quiz	Quiz	15
9/19/25	Chapter 1 Quiz	Quiz	10
9/30/25	Chapter 2 Quiz	Quiz	10
10/3/25	Chapter 3 Quiz	Quiz	10
10/6/25	Exam 1	Quiz	50
10/9/25	Chapter 4 Quiz	Quiz	10
10/15/25	Chapter 5 Quiz	Quiz	10
10/23/25	Chapter 7 Quiz	Quiz	10
10/27/25	Exam 2	Quiz	50
10/28/25	Chapter 8 Quiz	Quiz	10
10/30/25	Chapter 9 Quiz	Quiz	10
10/31/25	Chapter 10 Quiz	Quiz	10

Due Date	Assignment Name	Assignment Type	Points
11/6/25	Chapter 11 Quiz	Quiz	10
11/10/25	Exam 3	Quiz	50
11/14/25	Chapter 6 Quiz	Quiz	10
11/18/25	Chapter 12 Quiz	Quiz	10
11/24/25	Exam 4	Quiz	50
12/2/25	Chapter 14 Quiz	Quiz	10
12/5/25	Chapter 15 Quiz	Quiz	10
12/17/25	Final Exam	Quiz	95
12/18/25	End of Course Survey - Extra Credit	Quiz	0
12/18/25	Lab Worksheets Completion - Extra Credit	Assignment	0

Grading Scale

Grade Breakdown

Grade	Percentage
A	95-100%
A-	90-94%
B+	86-89%
B	83-85%
B-	80-82%
C+	76-79%
C	73-75%
C-	70-72%
D+	66-69%

Grade	Percentage
D	60-65%
D-	55-59%
E	Below 55%

Grading Policy: If the digit at the tenths place is less than 5 the grade will be rounded down to the nearest whole number, if it is 5 or greater, the grade will be rounded up to the next whole number. So 94.4 will be an A- and 94.5 will be an A.

Late Work Policy: Submissions will not be accepted more than 7 days after the due date without prior approval.

Incompletes: An incomplete is a conditional grade given only in extraordinary cases where a student has completed a major portion of the class (70%) but is unable to complete coursework due to circumstances beyond their control such as a major illness/injury or a death in the family. Written documentation will be required.

Academic Integrity

STUDENT CODE OF CONDUCT:

Each student is expected to follow the [SLCC Code of Student Rights and Responsibilities](#).

Use of Artificial Intelligence (AI) in this course:

"Generative artificial intelligence (AI) software is a rapidly emerging tool that students may be interested in using. If doing so, SLCC students are expected to adhere to the same standards as the Code of Student Rights and Responsibilities statement on plagiarism. Presenting generative AI software content as your own is a violation of academic integrity. If you use generative AI in your work, you must indicate that you have done so." -SLCC Dean of Students

Generative AI can be an excellent resource, but your own thoughts and words must be used on all quizzes, assignments, and discussion posts. If any sources are used, including generative AI, they must be properly cited. As stated in the SLCC Code of Student Rights and Responsibilities, "Students who are unsure of what constitutes plagiarism

should consult with their instructors. Claims of ignorance will not necessarily excuse the offense."

Additional Policies

This syllabus contains the policies and expectations that have been established for this course. These policies and expectations are intended to create a productive learning atmosphere for all students. Please bring any concerns or suggestions you may have to my attention. To create and preserve a course atmosphere that optimizes teaching and learning, we all share the responsibility of working together to cultivate a positive learning environment. A positive learning environment includes embracing the diverse identities, viewpoints, and experiences that you all bring to the class. The concepts and ideas we discuss in Exercise Physiology can be applied to everyone, but we must consider the differences in contributions to the field, access to healthcare and exercise opportunities, genetics, and social or cultural beliefs and backgrounds. By sharing your experiences, you will be adding to the story of Exercise Physiology.

- Most assignments will be submitted electronically on Canvas. There will also be activities/assignments completed in class.
- It is assumed that if you are taking this course, you have access to a reliable, up-to-date computer and consistent internet access. Have a backup computer arranged with a friend or family member in case of computer malfunction. Computers are available at the public library and in Salt Lake Community College libraries. If there is a problem with Canvas, the instructor will be the first to know and will adjust due dates if necessary. If you have difficulty accessing the Canvas course site, contact the Salt Lake Community College Help Desk at 801-957-5555.
- Messages will be posted on the course "Home" page or in the "Announcements" tab in Canvas. Please be sure you read these messages as they contain pertinent information.
- Communication is key! If you have a question, email me through the Canvas Inbox. I typically respond to messages within 24-48 hours during the work week. I also check messages periodically on weekends. Please do not wait to contact me if you are having any issues in or out of the course. It is much easier for me to work with you if I know what is going on as soon as possible.

- To create and preserve a positive learning environment, students are expected to conduct themselves in a manner that does not disrupt teaching or learning, and they are expected to follow these standards: Course discussions (whether in-person or online) should be civilized and respectful to everyone and relevant to the topic we are discussing. Discussion forums are meant to allow for a variety of viewpoints, this can only happen if we respect one another and our differences. Please see the Netiquette Page in Canvas for tips on how to interact with others in an online environment.

Student Academic Calendar

As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

[SLCC Student Academic Calendar](#)

How to Navigate to Canvas

Institutional Policies

As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements. By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

For more information, navigate to the Institutional Policies tab on the [Institutional Syllabus](#) page.

Learning Support and Tutoring Services

We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, visit the [Institutional Syllabus](#) page under the Tutoring and Learning Support tab. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

[Advising and Counseling Support Services](#)

At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, visit the [Institutional Syllabus](#) page under the Advising and Counseling Support Services tab. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

[College Wide Student Learning Outcomes](#)

- Acquire substantive knowledge in the intended major and throughout General Education
- Communicate effectively
- Think critically
- Express themselves creatively
- Develop civic literacy and the capacity to be community-engaged learners who act in mutually beneficial ways with community partners
- Develop the knowledge and skills to work with others in a professional and constructive manner
- Develop information literacy
- Develop computer literacy
- Develop quantitative literacies required for the chosen field of study