



蘇州大學
Soochow University

SPS 211 Fundamental of Exercise Physiology

Summer 2024

Course Credits: 4

Contact Hours: 56 hours

Instructor: TBA

Email: TBA

COURSE OBJECTIVES

This course covers basic concepts in exercise physiology. It offers overarching information about energy transfer and those physiologic support systems in human movements. Some emphasis stays on the interconnections of physiologic systems and the body changes during exercise. After this course, students can apply all the knowledge in daily exercise to build a stronger body and prevent diseases with appropriate training skills.

Upon completion of this course, students will be able to:

1. Have a comprehensive understanding of basic concepts in the physiological principles of human movement.
2. Demonstrate related human body systems(pulmonary, cardiovascular, neuromuscular, and muscular systems) in exercise and the interconnections among these systems.
3. Gain knowledge of the acute physiological changes in the human body during exercise.
4. Develop practical skills in effective and appropriate exercise.
5. Apply all their knowledge of the course in building a strong body and preventing diseases.

PREREQUISITES

BIO 338 Human Physiology

GRADING



Grades will be determined by accumulating points, with 100 points being the maximum, as follows:

ITEM	POINTS
Quizzes	20 Points
Assignments	20 Points
Midterm Exam	30 Points
Final Exam	30 Points
Total	100 Points

Late submissions will be graded at the end of the course. Grades will be assigned according to the following rule:

$A \geq 90 > B \geq 80 > C \geq 70 > D \geq 60 > F$.

We reserve the right to make adjustments to the overall grading policy.

COURSE MATERIALS

Required Texts:

William D. McArdle, Frank I. Katch, Victor L. Katch, *Essentials of Exercise Physiology*, 4th Edition, Lippincott Williams & Wilkins, 2010.

Recommended (Optional) Texts or Other Materials:

None

COURSE TOPICS

MODULE	TASKS
Module 1	Topics: Topic 1: Introduction to Exercise Physiology Topic 2: Macronutrients and Micronutrients Topic 3: Food Energy and Optimum Nutrition for Exercise Topic 4: Nutritional and Pharmacologic Aids to Performance Assessments: Quiz#1



Module 2	<p>Topics: Topic 5: Fundamentals of Human Energy Transfer Topic 6: Human Energy Transfer During Exercise Topic 7: Measuring and Evaluating Human Energy-Generating Capacity During Exercise Topic 8: Energy Expenditure During Rest and Physical Activity</p> <p>Assessments: Quiz#2 Assignment#1</p>
Module 3	<p>Topics: Topic 9: The Pulmonary System and Exercise Topic 10: The Cardiovascular System and Exercise Topic 11: The Neuromuscular System and Exercise Topic 12: Muscular System: Organization and Activation</p> <p>Assessments: Midterm Exam</p>
Module 4	<p>Topics: Topic 13: Hormones, Exercise, and Training Topic 14: Training the Anaerobic and Aerobic Energy Systems Topic 15: Training Muscles to Become Stronger Topic 16: Factors Affecting Physiologic Function: The Environment and Special Aids</p> <p>Assessments: Assignment#2</p>
Module 5	<p>Topics: Topic 17: Body Composition, Obesity, and Weight Control Topic 18: Physical Activity, Exercise, Successful Aging Topic 19: Disease Prevention Topic 20: Clinical Aspects of Exercise Physiology</p> <p>Assessments: Final Exam</p>

ATTENDANCE

1) Class attendance is required. Missing classes without permission will lead to decrease in overall grade.

Missing less than two classes: no penalty.

Missing more than two classes: 7% will be taken off from the overall grade.

If the instructor reports a student's frequent missing of class to the Soochow University Academic Administration Office, the student might get a written warning



and might be prohibited from attending final exam.

2) Participants in this course are expected to arrive in class promptly and adequately prepared. The primary objective of this course is to critically engage with the readings and the subject matter. Therefore, course participants are expected to have completed the reading prior to class and prepare thoughtful reflections/commentaries to share with fellow colleagues.

LEARNING REQUIREMENTS

- 1) Late assignments are not acceptable and are subjected to grade deductions.
- 2) Assignments submitted in the wrong format will be counted as not submitted.
- 3) Failure to submit or fulfill any required course component results in failure of the class.
- 4) Make-up for midterm and final exams only with valid excuses, as defined by the University.
- 5) In order to earn a Certificate of Completion, participants must thoughtfully complete all assignments by stated deadlines and earn an average quiz score of 50% or greater.

TECHNOLOGY POLICY

The use of electronic devices in class is distracting, both for the user and for the rest of the class. Only non-programmable calculators can be used in the tests and exam. Any attempts to use cell phones and other electronic communication devices will be seemed as cheating. Laptops are discouraged, unless you use them for activities DIRECTLY related to the course (eg., note taking, reading course documents).

ACADEMIC INTEGRITY POLICY

Soochow University highly values the academic integrity and aims to promote the academic fairness, honesty and responsibility. Any academic dishonesty behaviors and any attempts to cheats and plagiarism will be reported to the university administration office. A written warning and the relevant penalties will be imposed. The record might be shown on the official university transcript.



蘇州大學
Soochow University

DISABILITY ACCOMMODATION

Soochow University is committed to maintaining a barrier-free environment so that students with disabilities can fully access programs, courses, services, and activities at Soochow University. Students with disabilities who require accommodations for access to and/or participation in this course are welcome.

Note:

Please contact the University Administrative Office immediately if you have a learning disability, a medical issue, or any other type of problem that prevents professors from seeing you have learned the course material.