



School of Nursing and Health Professions Syllabus



Term: Credits: 3

Course Code: EXS 202

Title of Course: Exercise Physiology

Days & Times:

Location:

Instructor:

Office Hours:

Office Location:

Email:

Phone:

Prerequisites: EXS 110 and BIO 111

COURSE DESCRIPTION:

This course examines the body's physiological response to exercise with consideration to age, physical fitness, and environmental stresses. This includes the study of human responses and adaptations to exercise of varying levels of stress and intensity. Major topics include bioenergetics, the physiology of the circulatory, respiratory, muscular and nervous systems as they apply to exercise, and the underlying physiological basis of fitness. Laboratory experiences illustrate practical application of theoretical content with hands-on experiences to measure and apply the learned concepts from lecture.

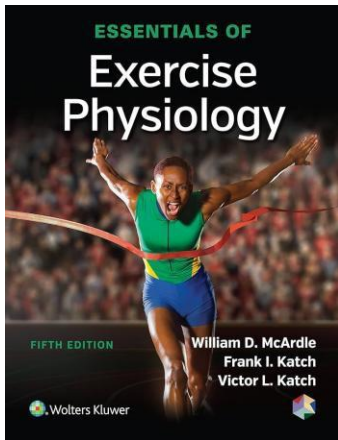
STUDENT LEARNING OUTCOMES:

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

1. Identify how responses and adaptations to exercise apply to principles of training.
2. Understand how exercise physiology relates to the general population and athletes with special emphasis on the following areas: metabolism, circulation, respiration, body composition, neuromuscular, and temperature regulation.
3. Utilize laboratory techniques to measure certain physiological parameters (such as body composition, muscular strength, muscular endurance, flexibility and maximum oxygen consumption).
4. Formulate appropriate frequency, overload, intensity, sets and repetitions for a dynamic resistance training program.
5. Develop a knowledge of special physiological concerns for women, children, and the elderly relative to exercise physiology.

TEXTBOOK REQUIRED:

McArdle, W.D., Katch, F.I., & Katch, V.L., (2015). Essentials of Exercise Physiology (5th ed). Lippincott Williams & Wilkins. ISBN: 9781496302090



EVALUATION METHODS:

- **Midterm & Final Exam** **30%**
- **Participation** **10%**
- **Discussion Questions** **10%**
- **Lab Reports/Assignments** **25%**
- **Presentation** **25%**

WEEKLY OUTLINE:

Week	Topic	Learning Outcomes (L.O)
1	Course Syllabus & Introduction to Ex Phys	
2	Macronutrients & Human Energy Transfer	SLO 1
3	Measuring and Evaluating Energy Expenditure	SLO 1
4	Body Composition	SLO 3
5	The Nervous System & Library Session	
6	The Muscular System	SLO 3
7	Muscle Soreness & Fatigue	SLO 3
8	MIDTERM	
9	Special Population Presentations	SLO 2

10	Cardiovascular System	
11	Pulmonary System	SLO 4
12	Endocrine System	
13	Environmental Factors	SLO 4
14	Age and Sex Differences	SLO 5
15	Final Exam	Final Exam

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<https://www.hccc.edu/administration/academic-affairs/syllabus-addendum.html>