



COURSE OUTLINE: FIT214 - EXERC. PHYSIOLOGY II

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Approved: Bob Chapman, Dean, Health

Course Code: Title	FIT214: EXERCISE PHYSIOLOGY II
Program Number: Name	3040: FITNESS AND HEALTH
Department:	FITNESS & HEALTH PROMOTION
Academic Year:	2024-2025
Course Description:	This course is the second part of a two-part series (Applied Exercise Physiology I and II). This course applies concepts learned in Applied Exercise Physiology I to how various environments, including hot, cold and altitude affect exercise and sport. It also applies concepts to how participation in exercise and sport affects various age groups and both genders. We will examine how ergogenic aids and common medications affect exercise. ECG interpretation and heart arrhythmias will also be identified.
Total Credits:	3
Hours/Week:	3
Total Hours:	42
Prerequisites:	FIT124
Corequisites:	There are no co-requisites for this course.
Substitutes:	FIT206
This course is a pre-requisite for:	FIT220, FIT222, FIT224
Vocational Learning Outcomes (VLO's) addressed in this course:	3040 - FITNESS AND HEALTH
Please refer to program web page for a complete listing of program outcomes where applicable.	VLO 2 Develop, implement and evaluate safe training programs grounded in fundamentals of anatomy, bio-mechanics, cardiorespiratory physiology, and nutrition to support the fitness and wellness goals of clients.
	VLO 10 Communicate information persuasively and accurately in oral, written, and other media formats.
Essential Employability Skills (EES) addressed in this course:	EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.
	EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication.
	EES 3 Execute mathematical operations accurately.
	EES 4 Apply a systematic approach to solve problems.
	EES 5 Use a variety of thinking skills to anticipate and solve problems.
	EES 7 Analyze, evaluate, and apply relevant information from a variety of sources.
	EES 8 Show respect for the diverse opinions, values, belief systems, and contributions of others.



- EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.
- EES 10 Manage the use of time and other resources to complete projects.
- EES 11 Take responsibility for ones own actions, decisions, and consequences.

Course Evaluation:

Passing Grade: 50%,

A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.

Books and Required Resources:

Physiology of Sport and Exercise by Kenney
 Publisher: Human Kinetics Publishers Edition: 8th
 ISBN: 9781718201729

Course Outcomes and Learning Objectives:

Course Outcome 1	Learning Objectives for Course Outcome 1
1. Apply knowledge of physiological adaptations that take place within the human body while exercising during exposure to various environments, including altitude and hot and cold temperatures.	1.1 Describe how the body regulates body temperature when exposed to extreme heat. 1.2 Describe the physiological responses to exercising in the heat. 1.3 Identify the health risks and symptoms of heat-related illnesses during exercise in the heat. 1.4 Apply and explain current research practices regarding safe programming considerations when exercising in the heat. 1.5 Describe how the body regulates body temperature when exposed to extreme cold. 1.6 Describe the physiological responses to exercising in the heat. 1.7 Identify the health risks and symptoms of cold-related illnesses during exercise in the cold. 1.8 Apply and explain current research practices regarding safe programming considerations when exercising in the cold. 1.9 Describe the environmental conditions at altitude. 1.10 Describe the physiological responses to exercising at altitude. 1.11 Identify the health risks and symptoms of altitude-related illnesses. 1.12 Apply and explain current research practices regarding safe programming considerations when exercising at altitude.
Course Outcome 2	Learning Objectives for Course Outcome 2
2. Apply knowledge of exercise considerations and physiological differences between age groups and genders during sport and exercise.	2.1 Discuss physiological responses in children and adolescents compared with adults and older adults. 2.2 Discuss special issues that affect different age groups during exercise and explore safe practices to deal with the identified special issues. 2.3 Differentiate the physiological differences in males and females. 2.4 Discuss special issues that affect males and females during exercise and explore safe practices to deal with the identified special issues.



	Course Outcome 3	Learning Objectives for Course Outcome 3
	3. Apply knowledge of how different ergogenic aids affect physiological adaptations that take place within the human body during exercise.	3.1 Identify the trainer's role in recommending ergogenic aids for sport performance to their clients. 3.2 Describe and explain the research process to identify products that have ergogenic properties. 3.3 Differentiate between nutritional, pharmacological, physiological, mechanical, and psychological aids. 3.4 Describe the physiological adaptations that occur while taking/using popular ergogenic aids. 3.5 Describe what the World Anti-Doping Code is and how athletes must comply. 3.6 Discuss the harm and consequences of using prohibited substances and techniques.
	Course Outcome 4	Learning Objectives for Course Outcome 4
	4. Apply knowledge of how different medications affect physiological adaptations that take place within the human body during exercise.	4.1 Discuss how different medications can affect how our physiological systems respond during exercise. 4.2 Identify when it is appropriate to refer, continue exercise, or stop exercise based on client medication intake.
	Course Outcome 5	Learning Objectives for Course Outcome 5
	5. Apply knowledge of how different activities affect individual differences in performance and body composition and how nutrition choices affect individual performance in different sports.	5.1 Discuss how body composition affects performance in sport and exercise. 5.2 Discuss safe coaching techniques regarding weight standards. 5.3 Discuss how different nutritional choices may contribute to or inhibit increased performance.
Course Outcome 6	Learning Objectives for Course Outcome 6	
6. Demonstrate the ability to research and debate common issues in the field of exercise physiology to ultimately provide safe and accurate information to clients.	6.1 Research a topic of interest in the field of exercise physiology and explain the findings using appropriate references. 6.2 Debate a current issue in the field of exercise physiology and utilize appropriate references.	

Evaluation Process and Grading System:	Evaluation Type	Evaluation Weight
	Learning Activities	10%
	Presentations	35%
	Tests	55%

Date:	July 31, 2024
Addendum:	Please refer to the course outline addendum on the Learning Management System for further information.

