American Public University System

The Ultimate Advantage is an Educated Mind

School of Management
SPHS 508
Current Topics in Exercise Science & Human Performance
Credit Hours: 3
Length of Course: 8 weeks
Prerequisite: None

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Instructor Information

Instructor:
Email:

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Course Description (Catalog)

Contemporary research related to a wide variety of areas related to exercise science and human performance are discussed and explored in this course. Students discuss relevant issues facing society regarding exercise, fitness, athletic performance, kinematic movement, motor development, and biomechanical analysis. The course challenges students to analyze and synthesize current and relevant topics and offer solutions to benefit exercise science research and related industries.

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Course Scope

This course examines the contemporary issues facing those practicing in a variety of fields with Exercise Science and Human Performance. Students will identify the pertinent issues related to the practice and advancement of Exercise Physiology, Biomechanics, Strength and Conditioning, Motor Development, Sports Psychology, Sports Nutrition and Human Performance through investigation of literature and professional sources. Learning experiences include the development of a systematic review of literature and a professional presentation on a current topic of interest in the exercise science community. Upon successful completion of the course, you should be able to identify important issues within several content areas of exercise science and provide informed analysis of these issues based on available published research.

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Course Objectives

After successfully completing this course, you will be able to:

1. Describe the goals and focus areas of current research related to the advancement of human performance through principles of exercise physiology.
2. Synthesize findings related to sports nutrition and supplementation into recommendations for professional practice.
3. Evaluate the use of statistical procedures in research in various disciplines of exercise science.
4. Evaluate research related to controversial issues in various disciplines within exercise science and formulate informed positions as a member of the professional community.
5. Conduct a systematic literature review on topics of importance within the field of exercise science.
6. Analyze research from various exercise science disciplines and relate it to current professional practice.

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Course Delivery Method

This course delivered via distance learning will enable students to complete academic work in a flexible manner, completely online. Course materials and access to an online learning management system will be made available to each student. Online assignments are due by Sunday evening of the week as noted and include Discussion Forum questions (accomplished in groups through a threaded discussion forum), examination, and individual assignments submitted for review by the Faculty Member). Assigned faculty will support the students throughout this eight-week course.

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Course Materials

Required Course Textbooks: No specific course textbook is required for this course though you will be expected to utilize any materials you have utilized throughout previous courses within this Master's degree program. **NOTE:** As part of this course, you are required to join and pay for a year's membership as a student member of the American College of Sports Medicine (ACSM). This membership will provide you with many resources as a member of the exercise science community including access to professional journals from ACSM.

Required Readings: Readings utilized in this course will include peer-reviewed and professional literature in a number of disciplines within the exercise science domain.

Additional Resources: A variety of sources of professional information will be utilized including professional forums in exercise science and discussions with practicing professionals in the student's area of interest.

Websites

This course will make use of a plethora of internet sources to develop understanding of current issues that are important within the domains of exercise science. The following public domain Websites are examples of useful resources. Please abide by the university's academic honesty policy when using Internet sources as well. Note web site addresses are subject to change.

Site Name	Website URL/Address
American College of Sports Medicine	http://www.acsm.org/
Exercise Prescription on the Net	www.exrx.net
Biomechanics Listserv	http://biomch-l.isbweb.org/forum.php

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Evaluation Procedures

Reading Assignments: A major component of this course will involve reading professional peer-reviewed journal articles as well as information from professional websites. You will be evaluated on these readings through weekly assignments, forums, and project papers.

Discussion Forum Assignments: Discussions will be an integral part of weekly interaction between class members. Posts will involve analyzing readings, such as peer-reviewed articles, and identifying themes, theories and practices related to contemporary issues in exercise science. Posts will be graded for accuracy of interpretation, rigor of argument, and writing clarity, format and mechanics. Your initial post must be **300 or more words** in length. Developing conversations with at least **TWO** of your classmates is required as part of your grade for each question. The responses should be at least **200 words** in length. Additionally, you will be required to respond to any direct questions posed by the instructor to you initial posts. Initial posts should be made by **Thursday of each week.** Your responses to classmates and posts answering questions posed to your initial post are due by midnight on **Sunday** of the week. All forum posts must be submitted as text directly into the textbox and NOT as an attachment. Each Forum posting is worth 10 points.

Responses and posts should abide by the University Netiquette policy. The purpose of the Forum activities is to expand your learning opportunities by engaging in academic and thought-provoking asynchronous conversation with your classmates and instructor. The instructor's role is to facilitate the learning process by participating in the discussions and moving conversations by promoting an advanced level of inquiry.

Homework Assignments: Four homework assignments will be completed during the course. These assignments will be graded based on the rubric provided for each assignment. Text and citation formatting must adhere to APA format. All assignments must be submitted as an attachment in the appropriate format (.doc or compatible) and NOT as text directly into the textbox.

Research Papers: Two research papers will be completed during the course. The first will involve an evaluation and review of the literature examining a current issue related to your professional field of practice. The second research paper will be a systematic review of literature with re-evaluation and expansion of the research in the same area. Specific requirements can be found in the assignments section of the course.

Grade Instruments	Points
Discussion Forums (15)	**150**
Assignment #1	**25**
Assignment #2	**25**
Assignment #3	**25**
Assignment #4	**25**
Research Paper #1	**100**
Research Paper #2	**100**
Total	**450**

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8 – Week Course Outline

Please see the Student Handbook to reference the University's grading scale

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Week	Topic	Learning Objectives	Resources	Assignment
1	**Professional vs Consumer/Non-Professional Resources**	CO4. Evaluate research related to controversial issues in various	Lesson 1: Review of Literature Example	Discussion Forum Week 1; Forum 1 "Introductions"

		disciplines within exercise science and formulate informed positions as a member of the professional community. CO5. Conduct a systematic literature review on topics of importance within the field of exercise science.		Discussion Forum Week 1; Forum 2 "Professional vs. Consumer Sources" Assignment #1: Selection of a research topic
2	Identifying "Current Issues" and Statistical Trends	CO4. Evaluate research related to controversial issues in various disciplines within exercise science and formulate informed positions as a member of the professional community. CO5. Conduct a systematic literature review on topics of importance within the field of exercise science.	Lesson 2: Peer-reviewed research article and associated abstract and summary critique	Discussion Forum Week 2; Forum 1 "Current issues identified by practicing professionals" Discussion Forum Week 2; Forum 2 "Common statistical procedures in research" Assignment #2: Article abstract and critique
3	Current Issues in Sports Nutrition	CO2. Synthesize findings related to sports nutrition and supplementation into recommendations for professional practice.		Discussion Forum Week 3; Forum 1 "Dietary prescription / Fad diets" Discussion Forum Week 3; Forum 2 "Nutritional supplements and ergogenic aids"

4	Current Ethical Issues and Sports Psychology	CO4. Evaluate research related to controversial issues in various disciplines within exercise science and formulate informed positions as a member of the professional community. CO5. Conduct a systematic literature review on topics of importance within the field of exercise science.	Lesson #3 – Levels of Evidence and Critical Appraisal #1	Discussion Forum Week 4; Forum 1 "Ethical issues" Discussion Forum Week 4; Forum 2 "Sports psychology" Research Paper #1
5	Current Issues in Biomechanics and Motor Learning	CO3. Evaluate the use of statistical procedures in research in various disciplines of exercise science. CO6. Analyze research from various exercise science disciplines and relate it to current professional practice.	Lesson #4 – Levels of Evidence and Critical Appraisal #2	Discussion Forum Week 5; Forum 1 "Biomechanics" Discussion Forum Week 5; Forum 2 "Motor learning" Assignment #3: PEDro Scale – Reevaluation
6	Current Issues in Strength Training and Exercise Physiology	CO3. Evaluate the use of statistical procedures in research in various disciplines of exercise science. CO6. Analyze research from various exercise		Discussion Forum Week 6; Forum 1 "Strength training" Discussion Forum Week 6; Forum 2 "Exercise physiology"

		science disciplines and relate it to current professional practice.		Assignment #4: PEDro Scale – Expansion
7	Examining and Predicting the Future in Professional Practice	CO6. Analyze research from various exercise science disciplines and relate it to current professional practice.		Discussion Forum Week 7; Forum 1 "Optimal performance" Discussion Forum Week 7; Forum 2 "Future current issues"
8	Course Wrap-up and Reflection	CO4. Evaluate research related to controversial issues in various disciplines within exercise science and formulate informed positions as a member of the professional community. CO5. Conduct a systematic literature review on topics of importance within the field of exercise science.		Discussion Forum Week 8; Forum 1 "Reflection" Research Paper #2

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Library Guide

Request a Library Guide for your course (http://apus.libguides.com/index.php)

The AMU/APU Library Guides provide access to collections of trusted sites on the Open Web and licensed resources on the Deep Web. These are specially tailored for academic research at APUS:

- Program Portals contain topical and methodological resources to help launch general research in the degree program. To locate, search by department name or navigate by school.
- Course Lib-Guides narrow the focus to relevant resources for the corresponding course. To locate, search by class code (e.g., SOCI111) or class name.

If a guide you need isn't available yet, let us know by emailing the APUS Library: librarian@apus.edu