American Public University System

The Ultimate Advantage is an Educated Mind

Department of Sport & Health Sciences
SPHS504
Advanced Methods of Strength and Conditioning
3 hours
8 weeks
Prerequisite(s):

Table of Contents

Instructor Information	Evaluation Procedures
Course Description	Grading Scale
Course Scope	Course Outline
Course Objectives	<u>Policies</u>
Course Delivery Method	Academic Services
Course Materials	Selected Bibliography

Instructor Information

Instructor: Email:

Table of Contents

Course Description (Catalog)

This course is designed to introduce the student to theoretical and practical concepts of exercise assessment, exercise interpretation and exercise prescription. The student will develop appropriate techniques used to recommend exercise prescription for healthy and unhealthy clients.

Table of Contents

Course Scope

This course examines the theoretical and practical concepts of strength exercise assessment, interpretation and prescription. In addition to numerous illustrations within the text, there are hands-on experiences to enhance learning. Also, learning experiences that include the development of a comprehensive exercise program along with several written assignments are included to further emphasize the material presented. On successful completion of the course, you should be able to develop an exercise program for any person or specific performance related goal.

Table of Contents

Course Objectives

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

- 1. Apply scientific knowledge to train athletes and clients for the primary goals of improving athletic performance and fitness.
- 2. Design a strength training program using goal specific measurements of strength.
- 3. Devise strategies to demonstrate and teach proper exercise techniques.
- 4. Design safe and effective strength training and conditioning and personal training programs.
- 5. Evaluate the role of stretching in the prevention of injury and effects on performance.
- 6. Apply exercise prescription principles for training variation, injury prevention, and reconditioning.

Table of Contents

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 Board questions (accomplished in groups through a threaded discussion board), examination, and individual assignments submitted for review by the Faculty Member). Assigned faculty will support the students throughout this eight-week course.

Table of Contents

Course Materials

Required Course Textbooks

Title: The Strength Training Anatomy Workout Author: Frederic Delavier & Michael Gundhill

Publisher: Human Kinetics ISBN-13: 9781450400954

Required Readings

Weekly required text readings are assigned each week along with additional original research and review articles. The reading requirements for each week are shown in the course outline below.

Additional Resources

Throughout our course we will utilize outside websites along with original research papers. These will be assigned during the course.

Websites

In addition to the required course texts the following public domain Websites are useful. 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 Council on Exercise	www.acefitness.org
National Strength & Conditioning Association	www.nsca-lift.org
American College of Sports Medicine	www.acsm.org
IDEA Health & Fitness Association	www.ideafit.com

Table of Contents

Evaluation Procedures

Reading Assignments:

As graduate level students I anticipate that you will all read the required text reading weekly. Text reading will be covered in forums and assignments.

Supplemental Readings:

You may be asked to read an outside research article or paper for our forums. Mastery of the material in that article will be measured based upon your original forum post and subsequent responses.

Additionally, your term paper will need to include novel research sources of your choice. Your ability to select and incorporate relevant research will be evaluated on an individual basis during the evaluation of your term paper.

Forum Assignments:

Throughout the course you will write responses to Forum prompts. These responses, also called **Posts**, will involve analyzing readings, comparing and contrasting the views of authors, and critiquing arguments presented by the readings or the class. Posts will be graded for accuracy of interpretation, rigor of argument, and clarity of expression. Unless otherwise noted, the following standards apply. 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. Initial posts should be made by **Wednesday of each week** and conversational responses should be initiated by **Sunday** of each week. Each Forum posting is worth 100 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:

Throughout our course you will be asked to complete three homework assignments. These will be presented to you and evaluated strictly upon the grading rubric provided within each assignment. However, all written assignments must be prepared in APA format.

Exams/Quizzes:

As a graduate level course we will not have any exams and/or quizzes to complete. Instead, your mastery of the material will be shown through the three written assignments and large term project.

Final Project:

As part of our course you will be asked to prepare a custom exercise program. This will be an exhaustive program that will include the evaluation of a program for a select person. You will be asked to show the

ability to apply strength training exercises based upon a determined person and performance goal. This paper will include the application and analysis of selected exercises, intensity and volume (load, repetitions, and sets), overload, progression, and exercise and mechanics variations. You will also be expected to show how to use concentric, eccentric, and isometric type contractions in your program along with an analysis of how unilateral and bilateral training apply to your program goals. In a final section, you will be asked to include advanced training methods where appropriate. All exercises and evaluations will include a comprehensive rationale for selection based on the person and/or goal of the program.

Grade Instruments	Points
Assignment 1: Research Article Review	100
Assignment 2: Review Article Summary	100
Assignment 3: Statement of Use	100
Final Project	150
Forum Week 1	100
Forum Week 1_2	100
Forum Week 2	100
Forum Week 2_2	100
Forum Week 3	100
Forum Week 3_2	100
Forum Week 4	100
Forum Week 4_2	100
Forum Week 5	100
Forum Week 5_2	100
Forum Week 6	100
Forum Week 6_2	100
Forum Week 7	100
Forum Week 7_2	100
Forum Week 8	100
Total	1950

Table of Contents

8 - Week Course Outline

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

Table of Contents

Week	<u>Topic</u>	Learning Objectives	<u>Readings</u>	<u>Assignment</u>
1	Programming	CO1 CO6	Text Readings: Delavier & Gundhill, pp. 221- 236 In Course Materials: Travis W. Beck, Jason M. DeFreitas, and Matt S. Stock, The Effects of a Resistance Training Program on Average Motor Unit Firing Rates, Clinical Kinesiology 65(1); Spring, 2011 3, pp. 1 – 8. Website: http://www.nsca- lift.org/webnews/detlnews.asp ?news=115	Forum Week 1: Introductions Forum Week 1_2 Assignment #1: Article Review
2	Developing Your Strength Training Program	CO4 CO5 CO6	Text Readings: Delavier & Gundhill, pp. 7 – 17 In Course Materials: Ashmore, Amy 2011, Strength and Cardio Supersets, IDEA Fitness Journal, 8 (4), 28-31. M. P. McHugh, C. H. Cosgrave, To stretch or not to stretch: the role of stretching in injury prevention and performance, Scandinavian Journal of Medicine and Science in Sports 2010: 20: 169–181.	Forum Week 2_1 Forum Week 2_2 Assignment #2: Review Article Summary

3	20 Steps to Developing Your Strength Training Program	CO1 CO4 CO6	Text Readings: Delavier & Gundhill, pp. 18 – 35 In Course Materials: LE Brown and M Greenwood, Periodization Essentials and Innovations in Resistance Training Protocols, Strength &	Forum Week 3_1 Forum Week 3_2 Assignment #3: Statement of Use
	Advanced Training Methods	CO3 CO4 CO6	Conditioning Journal, 2005, Vol. 27 Issue 4, p80 Text Readings: Delavier & Gundhill, pp. 36 - 58	Forum Week 4_1 Forum Week 4_2
4			In Course Materials: Aaron Bubbico and Len Kravitz, PhD, Eccentric Exercise: A comprehensive review of a distinctive training method, IDEA Fitness Journal, October 2010, pp 50 – 59.	
5	Exercise Analysis: Arms	CO1 CO4 CO6	Text Readings: Delavier & Gundhill, pp. 59 – 91 In Course Materials: Roberto Simão, Juliano Spineti, Belmiro F. de Salles, Liliam F. Oliveira, Thiago Matta, Fabricio Miranda, Humberto Miranda and Pablo B. Costa, Influence of exercise order on maximum strength and muscle thickness in untrained men, Journal of Sports Science and Medicine (2010) 9, 1-7	Forum Week 5_1 Forum Week 5_2
6	Exercise Analysis: Shoulders, Chest, and Back	CO4 CO6	Text Readings: Delavier & Gundhill, pp. 92 - 147	Forum Week 6 Forum Week 6_2

7	Exercise Analysis: Thighs, Legs, and Glutes, & Gain Flexibility in the Rotator Muscles of the Hips	CO4 CO6	Text Readings: Delavier & Gundhill, pp. 148 - 201	Forum Week 7 Forum Week 7_2
8	Abdominals, Exercises for the Diaphragm and Respiratory Muscles	CO1 CO2 CO4 CO6	Text Readings: Delavier & Gundhill, pp. 202 – 220	Forum Week 8 Term Paper due

Table of Contents

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