

EXPH 5073
Graduate Topics in Exercise Physiology

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Course Description: offers the advanced student an opportunity to select a special area of interest for intensive research in human performance, sports, or recreation. A research paper is required.

Coursework: Research will be in the form of scientific papers relegated to providing information on the scientific aspects of physiological adaptation specific to that population. From this information, the students will utilize papers given to them by the instructor as well as finding pertinent research papers associated with physiological adaptations to training for that given population. Given the research papers, each student will establish a generalized training program on an Excel Spreadsheet for the training of that population.

Topic Areas:

- A. Elderly Population (i.e., Alzheimer Diseases, Dementia) (8 weeks)
- B. Metabolic Syndrome Population (i.e., Diabetes, Obesity, and Hypertension) (8 weeks)
- C. Diet and Chronic Diseases (i.e., Ketogenic Diet, High Protein Diet, etc.) (8 weeks)
- D. Elite Athlete (i.e., competitive at the national and international level) (8 weeks): sport must be identified.

****The topic should be selected by Friday, Sep 6th.**

Written Assignments: Submit to D2L

1. Literature Reviews: physiological adaptations associated with the prescribed program
 - a) References for adaptations: You must have **20 references** pertaining to physiological adaptations for this demographic group. You must summarize these 20 references in a literature review format.
2. Training/Diet program
 - a. Frequency of Training: days per week
 - b. Intensity of Training: percent of maximal heart rate or 1 repetition maximal
 - c. Time: duration of the training session
 - d. Type: mode of training (i.e., walking, biking, lifting weights)
 - e. Progression: timeline of progression and how one progresses

Grading:

Literature Reviews with Research articles cited (by Friday, Oct 23 rd)	30%
Excel Spreadsheet and Training Program (by Friday, Nov 13 th)	30%
<u>Completed (by Friday, Dec 4th)</u>	<u>40%</u>
Total	100%

Template for Literature Review

Article reference: Author Last Name, First Initial (year published). Title of the article.
Journal of Publication, Vol. # (issue #): pages.

Summary:

Training program

Day of Week	Mode of Training	Duration of Session	Intensity of Training	Physiological Adaptation	Progression

- a. Frequency of Training: days per week
- b. Intensity of Training: percent of maximal heart rate or 1 repetition maximal
- c. Time: duration of the training session
- d. Type: mode of training (i.e., walking, biking, lifting weights)
- e. Progression: timeline of progression and how one progresses

Completed paper will be Times New Roman, 12 fonts, double spaced, typed pages in length including references:

- Title page: title and your name (1 page)
- Introduction with purpose of your study (1-2 pages)
- Training program (descriptive) with tables (1-2 pages)
- Conclusion/Perspective of the program (1-2 pages)
- References