



## Department of Kinesiology

EXS 350L: Fitness Assessment

& Exercise Prescription Lab

1 Unit

Spring 2017

|   |   |
|---|---|
| <b>Meeting days:</b> Friday                 | <b>Instructor:</b> Susan Ganz, PhD, ATC, CFSC                                       |
| <b>Meeting times:</b> 7:45am – 9:25am       | <b>Office phone:</b> 619-849-2629   |
| <b>Meeting location:</b> Rohr 112           | <b>Cell Phone:</b> 619-701-2567   |
| <b>Class dates:</b> 1-13-17 through 4-28-17 | <b>E-mail:</b> <a href="mailto:susanganz@pointloma.edu">susanganz@pointloma.edu</a> |
| <b>Final Exam:</b> No Final                 | <b>Office hours:</b>  |

### PLNU Mission

#### To Teach ~ To Shape ~ To Send

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service is an expression of faith. Being of Wesleyan heritage, we strive to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

### COURSE DESCRIPTION AND AIM

This course covers principles of exercise prescription with hands-on experience using various field methods to evaluate cardiorespiratory fitness, muscular fitness, body composition, flexibility and balance. This course is designed for those seeking a career in the health/fitness industry and serves as preparation for certification exams such as the ACSM Certified Health Fitness Specialist or NSCA Strength and Condition Specialist.

### PREREQUISITES

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KIN 340: Exercise Physiology & KIN 340L: Exercise Physiology lab

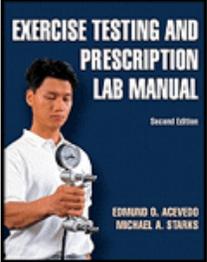
### STUDENT LEARNING OUTCOMES

Upon completion of this course, the student will:

1. Develop knowledge of the principles of physical fitness assessment, interpretation of results, and exercise prescription.
2. Have the opportunity for practical experiences using field and laboratory tests for the appraisal of physical fitness status and the design of individualized exercise programs in the following areas:
  - A) health screening & risk stratification

- B) cardiorespiratory fitness
  - C) muscular strength & endurance
  - D) body composition & weight management
  - E) flexibility & posture
3. Learn to assess and design various exercise and conditioning programs for development of each physical fitness component and weight management.
  4. Learn to assess and develop exercise protocols for individuals with controlled cardiovascular, pulmonary, and metabolic diseases.

## REQUIRED TEXT

|   |                         |  |
|---|-------------------------|--|
|  | <b>Title</b>            | <b>Exercise Testing &amp; Prescription Lab Manual 2<sup>nd</sup> Ed.</b> |
|   | <b>Author</b>           | Edmund O. Acevedo & Michael A. Starks                                    |
|   | <b>ISBN-13</b>          | 978-0-7360-8728-5  |
|   | <b>Publisher</b>        | Human Kinetics   |
|   | <b>Publication Date</b> | 2011   |

## INCOMPLETES AND LATE ASSIGNMENTS

All assignments are to be submitted/turned in by the beginning of the class session when they are due—including assignments posted in Canvas. Incompletes will only be assigned in extremely unusual circumstances.

## FINAL EXAMINATION POLICY

Successful completion of this class requires taking the final examination **on its scheduled day**. The final examination schedule is posted on the [Class Schedules](#) site. No requests for early examinations or alternative days will be approved.

## PLNU COPYRIGHT POLICY

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

## PLNU ACADEMIC HONESTY POLICY

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See [Academic Policies](#) for definitions of kinds of academic dishonesty and for further policy information.

## **PLNU ACADEMIC ACCOMMODATIONS POLICY**

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If you have a diagnosed disability, please contact PLNU's Disability Resource Center (DRC) within the first two weeks of class to demonstrate need and to register for accommodation by phone at 619-849-2486 or by e-mail at [DRC@pointloma.edu](mailto:DRC@pointloma.edu). See [Disability Resource Center](#) for additional information.

## **PLNU ATTENDANCE AND PARTICIPATION POLICY**

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Regular and punctual attendance at all classes is considered essential to optimum academic achievement. If the student is absent from more than 10 percent of class meetings, the faculty member can file a written report which may result in de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university drop date or, after that date, receive the appropriate grade for their work and participation. See [Academic Policies](#) in the Undergraduate Academic Catalog.

## **COURSE REQUIREMENTS**

### **Course Assignments**

#### **Laboratory & Professional Experience & Skills (10 points)**

Attendance and participation in laboratory discussions. Assisting other class members with lab testing for class projects.

#### **Lab Questions (10 @ 10 points)**

#### **I Am My First Client (140 points)**

The purpose of this project is to provide you with practical experience in assessing physical fitness levels and in designing individualized exercise programs. You will use yourself as your client for this project.

- Phase I: Health/Lifestyle Assessment (20 points)
- Phase II: CR Fitness Assessment/Aerobic Exercise Program (30 points)
- Phase III: Body Composition Assessment (30 points)
- Phase IV: Strength & Resistance Training Program (30 points)
- Phase V: Flexibility & Stretching Program (30 points)

### **Course Grading**

| <b>Item</b>                      |                           | <b>Total Points</b> |
|----------------------------------|---------------------------|---------------------|
| 1. Lab & Professional Experience | 10 points                 | 10                  |
| 2. Labs Questions                | 10 @ 10 pts               | 100                 |
| 3. Lab Write ups                 | 1 @20pts; 4 @30 pts (140) | 140                 |
| <b>Total</b>                     |                           | <b>200</b>          |

| <b>GRADE</b> | <b>POINT VALUE</b> |
|--------------|--------------------|
|--------------|--------------------|

|    |       |        |
|----|-------|--------|
| A  |       | 94-100 |
| A- | 90-93 |        |
| B+ |       | 88-89  |
| B  |       | 84-87  |
| B- |       | 80-83  |
| C+ |       | 78-79  |
| C  |       | 74-77  |
| C- |       | 70-73  |
| D+ |       | 68-69  |
| D  |       | 64-67  |
| D- |       | 60-63  |
| F  |       | 0-59   |

### **Course Rules/Guidelines**

#### **Class Attendance and Participation**

Class experiences contain information that you will need in order to do well in this course. A pattern of missing classes will cause your grade to be lowered or you may be “de-enrolled” (**Six misses, total from all sections, will qualify you for de-enrollment**). Each student is required to be in every class meeting without fail. Responsible attendance and promptness are essential to gain the maximum benefits from this class. There are no allowed or excused absences. (Exceptions: When necessitated by certain college-sponsored activities and are approved in writing by the Academic Dean.)

Excused absences for emergencies are accepted with notification ASAP. Role will be taken and students missing more than 6 classes will be de-enrolled from the class. If an eclass quiz is due on the day a student misses class the student will receive a 0 on that quiz whether it was completed or not.

#### **Late Work**

Assignments not turned on the day and time that they are due will be 10% off every day it is late.

## **Make-Ups**

No make-up labs will be allowed unless excused by the school and the professor is notified of the excused absence prior to the missed class or if the student has a legitimate emergency.

## **Email**

Email will be the **MAIN** form of communication used by the professor outside of class. Students are expected to check their email at least **ONCE A DAY**. If you know of issues with your @pointloma.edu account please notify the professor immediately.

## **Acceptable behavior**

- ✓ Make sure cell phones are turned off and put away (no texting or making/receiving calls during class).
- ✓ Even if you don't always agree, you will have respect for each others' opinions as to what is being discussed in class.
- ✓ Everyone learns at a different rate; at no time should you make other's feel inadequate.

## **Adding/Dropping**

✓ It is the student's responsibility to maintain his/her class schedule. Should the need arise to drop this course (personal emergencies, poor performance, etc.), the student has the responsibility to follow through (provided the drop date meets the stated calendar deadline established by the university), not the instructor. Simply ceasing to attend this course or failing to follow through to arrange for a change of registration (drop/add) may easily result in a grade of F on the official transcript.

## **Cheating and Plagiarism**

✓ Cheating is the actual or attempted practice of fraudulent or deceptive acts for the purpose of improving one's grade or obtaining course credit; such acts also include assisting another student to do so. Plagiarism is a specific form of cheating which consists of the misuse of the published and/or unpublished works of others by misrepresenting the material (i.e., their intellectual property) so used as one's own work. Penalties for cheating and plagiarism range from a 0 or F on a particular assignment, through an F for the course, to expulsion from the university. For more information on the University's policy regarding cheating and plagiarism, refer to the student handbook: [http://www.pointloma.edu/Handbook/Policies/Academic\\_Honesty.htm](http://www.pointloma.edu/Handbook/Policies/Academic_Honesty.htm)

## **Important Dates**

- January 10 – Classes Begin
- January 16 – MLK Day (No Class)
- January 20 – Last Day to add Semester Class
- March 6-10 – Spring Break (No Class)
- March 24 – Last Day to Drop Semester Class
- April 13-17 – Easter Recess (No Class)
- April 28 – Classes End
- May 1-5 – Finals Week

## EXS 350L - Class Outline

| Date         | Topic   | Assignments Due | Required Reading |
|--------------|---|-----------------|------------------|
| 1-13-17 (F)  | Introduction; & Expectations  |                 |                  |
| 1-20-17 (F)  | Risk Factor Evaluation, Medical History & Informed Consent                  |                 | Ch. 3            |
| 1-27-17 (F)  | Heart Rate &BP Assessment   | Phase I         | Ch. 4            |
| 2-3-17 (F)   | ECG Placement & Assessment (Group 1)  |                 |                  |
| 2-10-17 (F)  | ECG Placement & Assessment (Group 2)  |                 |                  |
| 2-17-17 (F)  | <b>NO CLASS</b>   |                 |                  |
| 2- 24-17 (F) | Calibrating Lab Instruments<br>Submaximal Exercise Test Protocols (Group 1) |                 | Ch. 5&6          |
| 3-3-15 (F)   | <b>NO CLASS</b>   |                 |                  |
| 3-6 – 3/10   | <b>SPRING BREAK – NO CLASS</b>  |                 |                  |
| 3-17-17 (F)  | Calibrating Lab Instruments<br>Submaximal Exercise Test Protocols (Group 2) |                 | CH. 5&6          |
| 3-24-17 (F)  | Evaluating Muscular Strength & Endurance (Group 1)                          | Phase II        | Ch. 2, 7,8       |
| 3-31-17 (F)  | Evaluating Muscular Strength & Endurance (Group 2)                          |                 | Ch. 2, 7, 8      |
| 4-1-17 (F)   | Skinfold &Circumference Assessment Techniques; Assessing Body Fatness       | Phase III       |                  |
| 4/13-4/17    | <b>EASTER RECESS – NO CLASS</b>   |                 |                  |
| 4-21-17 (F)  | Evaluating Posture; FMS   |                 |                  |
| 4-29-17 (F)  | Evaluating Flexibility  | Phase IV        | Ch. 9            |
| 5-2 – 5-6-   | <b>FINALS WEEK – NO FINAL</b>   | Phase V         |                  |

### Knowledge, Skills, and Abilities (KSAs) for students in Exercise Science ACSM Certified Health Fitness Specialist

#### EXS 350L: Fitness Assessment & Exercise Prescription Lab

| KSA#'s | KSA description  |
|--------|--|
|        | <b>GENERAL POPULATION/CORE:EXERCISE PHYSIOLOGY AND RELATED EXERCISE SCIENCE</b>  |
| 1.1.28 | Knowledge of and ability to describe the implications of ventilatory threshold (anaerobic threshold) as it relates to exercise training and cardiorespiratory assessment.                                |
| 1.1.29 | Knowledge of and ability to describe the physiologic adaptations of the pulmonary system that occur at rest and during submaximal and maximal exercise following chronic aerobic and anaerobic training. |

|        |  |
|--------|--|
| 1.1.37 | Knowledge of and skill to demonstrate exercises designed to enhance muscular strength and/or endurance of specific major muscle groups.  |
| 1.1.38 | Knowledge of and skill to demonstrate exercises for enhancing musculoskeletal flexibility.   |
|        | <b>GENERAL POPULATION/CORE: PATHOPHYSIOLOGY AND RISK FACTORS</b>   |
| 1.2.1  | Knowledge of the physiologic and metabolic responses to exercise associated with chronic disease (heart disease, hypertension, diabetes mellitus, and pulmonary disease).  |
|        | <b>GENERAL POPULATION/CORE: HEALTH APPRAISAL, FITNESS AND CLINICAL EXERCISE TESTING</b>  |
| 1.3.4  | Knowledge of and the ability to perform risk stratification and its implications toward medical clearance before administration of an exercise test or participation in an exercise program.   |
| 1.3.7  | Knowledge of the advantages/disadvantages and limitations of the various body-composition techniques including but not limited to, air displacement plethysmography (BOD POD), dual-energy x-ray absorptiometry (DEXA), hydrostatic weighing, skinfolds and bioelectrical impedance. |
| 1.3.8  | Skill in accurately measuring heart rate and blood pressure, and obtaining rating of perceived exertion (RPE) at rest and during exercise according to established guidelines.   |
| 1.3.9  | Skill in measuring skinfold sites, skeletal diameters, and girth measurements used for estimating body composition.  |
| 1.3.15 | Ability to explain the purpose and procedures and perform the monitoring (heart rate, RPE, and blood pressure) of clients before, during, and after cardiorespiratory fitness testing.   |
| 1.3.16 | Ability to instruct participants in the use of equipment and test procedures.  |
| 1.3.17 | Ability to explain the purpose of testing, determine an appropriate submaximal or maximal protocol, and perform an assessment of cardiovascular fitness on the treadmill or cycle ergometer.   |

|       |  |
|-------|--|
|       | <b>CARDIOVASCULAR: PATHOPHYSIOLOGY AND RISK FACTORS</b>  |
| 2.2.4 | Knowledge the effects of the above diseases and conditions on the cardiorespiratory responses at rest and during exercise. |