Note:

Course content may be changed, term to term, without notice. The information below is provided as a guide for course selection and is not binding in any form, and should <u>not</u> be used to purchase course materials.

LIBERTY UNIVERSITY

COURSE SYLLABUS

EXSC 610

GRADED EXERCISE TESTING AND ELECTROCARDIOGRAPHY

COURSE DESCRIPTION

This course provides the framework for the exercise physiologist to develop and apply the academic background for clinical exercise testing. Students will become competent in the physiological and pathophysiological responses of the body during various exercise testing protocols. Guidelines based on ACSM standards will be applied while vital signs are measured and evaluated during exercise testing. Cardiac physiology will be covered through electrocardiographic monitoring and interpretation.

RATIONALE

The exercise physiologist is responsible for being a part of the clinical team that takes care of exercise testing, evaluation, and prescription for clients or patients. To provide the most effective and safe testing procedure, exercise physiologists are required to have an extensive knowledge base regarding testing guidelines and procedures. Exercise physiologists must also have the ability to interpret physiological measures, including electrocardiography, and integrate them into an evidence-based plan of action. This course will provide the student with the necessary guidelines and procedures to be a part of an effective clinical team.

I. PREREQUISITE

For information regarding prerequisites for this course, please refer to the Academic Course Catalog.

II. REQUIRED RESOURCE PURCHASE

Click on the following link to view the required resource(s) for the term in which you are registered: http://bookstore.mbsdirect.net/liberty.htm

III. ADDITIONAL MATERIALS FOR LEARNING

A. Computer with basic audio/video output equipment

B. Internet access (broadband recommended)

C. Microsoft Office

IV. MEASURABLE LEARNING OUTCOMES

Upon successful completion of this course, the student will be able to:

A. Demonstrate graduate-level knowledge and advanced proficiency as a Clinical Exercise Specialist as defined by the program's accrediting body.

B. Communicate effectively in the area of exercise science and cardiopulmonary physiology.

C. Implement exercise science related programming.

D. Evaluate research data.

E. Apply research techniques.

F. Conduct health history interviews in order to risk stratify potential subjects for exercise testing.

G. Administer graded exercise tests in a safe, effective manner based on recommendations and guidelines established by the ACSM.

H. Conduct a stress test.

I. Develop appropriate exercise prescriptions by interpreting GXT results.

V. COURSE REQUIREMENTS AND ASSIGNMENTS

A. Textbook readings and lecture presentations

B. Course Requirements Checklist

After reading the Course Syllabus and Student Expectations, the student will complete the related checklist found in Module/Week 1.

C. Discussion Board Forums (2)

Discussion boards are collaborative learning experiences. Therefore, the student is required to create a thread in response to the provided prompt for each forum. Each thread must be at least 500 words, demonstrate course-related knowledge, and include at least 1 biblical principle and at least 2 scholarly references in addition to the course textbook. In addition to the thread, the student is required to reply to at least 2 classmates' threads. Each reply must be at least 300 words and reference the course textbook and at least 1 other scholarly or biblical source. All citations must be current APA format.

D. Chapter Essay Questions (6)

The student will evaluate chapter questions and write a 200–250-word essay response per question. Each assigned module/week contains 4 separate questions for the student to answer in essay form. The student must reference the course textbook and at least 1 other scholarly source in each response.

E. Exams (2)

The student will take a Midterm Exam and a Final Exam. Each exam will cover the Reading & Study material from the assigned modules/weeks. The Midterm Exam will contain 60 multiple-choice, true/false, and fill-in-the-blank questions, and the Final Exam will contain 60 multiple-choice and true/false questions. Each exam will be open-book/open-notes and have a time limit of 1 hour and 30 minutes.

VI. COURSE GRADING AND POLICIES

A. Points

Course Requirements Checklist			10
Discussion Board Forums	(2 at 50 pts ea)		100
Chapter Essay Questions	(6 at 100 pts ea)		600
Exams			
Midterm	(Modules 1–4)		150
Final	(Modules 5–8)		150
		Total	1010

B. Scale

A = 940–1010 A- = 920–939 B+ = 900–919 B = 860–899 B- = 840–859
C+ = 820–839 C = 780–819 C- = 760–779 D+ = 740–759 D = 700–739
D- = 680–699 F = 0–679

A. Disability Assistance

Students with a documented disability may contact Liberty University Online's Office of Disability Academic Support (ODAS) at LUOODAS@liberty.edu to make arrangements for academic accommodations. Further information can be found at www.liberty.edu/disabilitysupport.

LIBERTY UNIVERSITY

COURSE SCHEDULE

EXSC 610

Textbook: ACSM, *Resource Manual for Guidelines for Exercise Testing and Prescription* (2013).
Dunbar & Saul, *ECG Interpretation for the Clinical Exercise Physiologist* (2009).

MODULE/ WEEK	READING & STUDY	ASSIGNMENTS	POINTS
1	ACSM: chs. 6, 19, 23 1 presentation	Course Requirements Checklist Class Introductions DB Forum 1	10 0 50
2	ACSM: chs. 24, 38 1 presentation	Chapter Essay Questions	100
3	Dunbar & Saul: chs. 1–3 1 presentation	Chapter Essay Questions	100
4	Dunbar & Saul: chs. 4–6 1 presentation	Chapter Essay Questions Midterm Exam	100 150
5	Dunbar & Saul: chs. 7–8 1 presentation	Chapter Essay Questions	100
6	Dunbar & Saul: chs. 9–10 1 presentation	Chapter Essay Questions	100
7	Dunbar & Saul: chs. 11–12 1 presentation	Chapter Essay Questions	100
8	Dunbar & Saul: chs. 13–14 1 presentation	DB Forum 2 Final Exam	50 150
		TOTAL	**1010**

DB = Discussion Board

NOTE: Each course module/week begins on Monday morning at 12:00 a.m. (ET) and ends on Sunday night at 11:59 p.m. (ET). The final module/week ends at 11:59 p.m. (ET) on **Friday**.