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 635

EXERCISE PRESCRIPTION FOR SPECIAL POPULATIONS: CARDIAC AND PULMONARY DISORDERS

COURSE DESCRIPTION

This course provides the foundational understanding for the pathophysiological processes of various common chronic conditions. A clinical understanding of limitations and special needs will be provided, which allows the exercise scientist to appropriately interact and serve the cardiopulmonary client.

RATIONALE

The purpose of this course is to provide the student with an understanding and overview of the multiple and diverse elements which contribute to the successful implementation and organization of an exercise program for adults and children with cardiopulmonary-related issues.

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. Blackboard recommended browsers

D. Microsoft Office

IV. MEASURABLE LEARNING OUTCOMES

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

A. Understand and comprehend all concepts and content related to all physical activity and its importance for populations with cardiac and pulmonary disorders.

B. Demonstrate knowledge of the structure and function of the body as well as the integrative nature of physiological systems during diseased states.

C. Critically evaluate exercise programs for diseased populations.

D. Demonstrate an understanding of the unique and symbiotic relationship between the cardiovascular and respiratory systems.

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 300–500 words and demonstrate course-related knowledge. In addition to the thread, the student is required to reply to 2 other classmates' threads. Each reply must be 200–400 words. Each thread must contain at least 1 scholarly source in current APA format.

D. Case Studies (3)

The student will read the assigned case study for that specific module/week and answer the questions in a thorough and detailed manner. The responses to each specific question cannot be longer than 500 words and the course textbook must be used as a main resource in writing your response to each question for each case study. You may also use notes taken from course presentations

E. Journal Article Review (JAR) Paper

The student will submit a research-based paper in current APA format dealing with a thorough analysis of a condition. The paper must be at least 8 pages and cite at least 5 scholarly sources. The student will review a selected clinical exercise physiology original research article strongly associated with cardiopulmonary disorders.

F. Exams (2)

The student will be required to complete 2 exams. Exam 1 will cover the first half of the content covered (Modules/Weeks 1–4), and Exam 2 will cover the second half (Modules/Weeks 5–8). Each exam will contain 60 multiple-choice, true/false, and short answer questions and have a 1-hour and 30-minute time limit.

VI. Course Grading and Policies

A. Points

Course Requirements Checklist		10
Discussion Board Forums (2 at 100 pts ea)		200
Case Studies (3 at 100 pts ea)		300
Journal Article Review (JAR) Paper		200
Exam 1	(Modules 1–4)	150
Exam 2	(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

C. Disability Assistance

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

If you have a complaint related to disability discrimination or an accommodation that was not provided, you may contact ODAS or the Office of Equity and Compliance by phone at (434) 592-4999 or by email at equityandcompliance@liberty.edu. Click to see a full copy of Liberty's Discrimination, Harassment, and Sexual Misconduct Policy or the Student Disability Grievance Policy and Procedures.

COURSE SCHEDULE

EXSC 635

Textbooks: Ehrman et al., *Clinical Exercise Physiology* (2019).
ACSM, *ACSM's Guidelines for Exercise Testing and Prescription*. (2018).

MODULE/ WEEK	READING & STUDY	ASSIGNMENTS	POINTS
1	Ehrman et al.: ch. 13 ACSM's Guidelines pp. 226–248 1 presentation	Course Requirements Checklist Class Introductions DB Forum 1	10 0 100
2	Ehrman et al.: ch. 14 1 presentation	Case Study A	100
3	Ehrman et al.: ch. 15 ACSM's Guidelines pp. 237–240 1 presentation	Case Study B	100
4	Ehrman et al.: ch. 16 ACSM's Guidelines pp. 245–248 1 presentation	Exam 1	150
5	Ehrman et al.: ch. 17 1 presentation	Case Study C	100
6	Ehrman et al.: ch. 18 ACSM's Guidelines pp. 255–260 1 presentation	DB Forum 2	100
7	Ehrman et al.: ch. 19 ACSM's Guidelines pp. 251–255 1 presentation	Journal Article Review (JAR) Paper	200
8	Ehrman et al.: ch. 20 1 presentation	Exam 2	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**.