

## **Oakland University School of Health Sciences**

**Program Area:** Exercise Science (EXS 530)  
**Course Title:** Diagnostic Testing/Exercise Prescription  
**Term/Year:** Winter 2018  
**Current Location:** Lecture: Human Health Building, room 1006  
Lab: Human Health Building, room 5050  
**Time:** Lecture: 5:30 pm – 7:30 pm  
Lab: 7:30 pm – 9:30 pm

**Instructor:** Dennis J Kerrigan, PhD (weeks 1-8)  
Clinton Brawner, PhD (weeks 9-16)

**Office Hours:** 5:00 p.m. – 5:30 p.m. (Tuesday's)

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Dr. Brawner: [cbrawne1@hfhs.org](mailto:cbrawne1@hfhs.org)

**Textbook (required):**

Ehrman, Gordon, Visich, & Keteyian, Clinical Exercise Physiology, 3<sup>rd</sup> edition.

ISBN: 978-1450412803

**Other (required):**

\*\*Monitor Blackboard

**Textbook (strongly suggested):**

American College of Sports Medicine, Guidelines for Exercise Testing and Prescription 10<sup>th</sup> edition, ISBN: 978-1496339072

Levine, Coyne, & Colvin, Clinical Exercise Electrocardiography, ISBN: 978-1284034202

## Course Objectives

- Knowledge of normal physiological responses to acute and chronic exercise.
- Skill in resting and exercise blood pressure assessment.
- Knowledge of basic principles of electrocardiography (ECG) and common ECG abnormalities.
- Knowledge of basic pharmacology principles and common drug classes for cardiovascular, pulmonary, and metabolic diseases.
- Knowledge of the key components of a general interview and assessment required for safe participation in exercise testing or training.
- Knowledge of the advanced concepts and scientific principles of general clinical exercise physiology in the treatment of myocardial ischemia with exercise, nitrates and adrenergic blocking agents
- Knowledge of the normal and abnormal physiologic responses to acute exercise.
- Knowledge of clinical exercise testing and clinical indications.
- Knowledge of cardiopulmonary exercise testing and clinical indications.
- Knowledge of exercise prescription for apparently individuals and those with chronic disease.

## Graduate Grading System

<b>Course Activities and Related Point Value</b>			
<b>Activity</b>	<b>Point Value</b>	<b>Number</b>	<b>Total Points</b>
Quizzes	5	8	40
Projects	20	2	40
Lab reports	15	4	60
Mid-Term & Final Exam	30	2	60
	<b>Total potential points:</b>		<b>200</b>
<b>Points Achieved and Final Grade</b>			
<b>Total Points Achieved</b>	<b>Percent of Total Potential Points</b>		<b>Final Grade</b>
≥183	≥92%		4.0 (A)
179-182	90-91%		3.9
175-178	88-89%		3.8
171-174	86-87%		3.7
167-170	84-85%		3.6
163-166	82-83%		3.5 (B)
159-162	80-81%		3.4
157-158	79%		3.3
155-156	78%		3.2
153-154	77%		3.1
151-152	76%		3.0
149-150	75%		2.9 (C/D)
147-148	74%		2.8
145-146	73%		2.7
143-144	72%		2.6
141-142	71%		2.5
≤140	≤70%		Not passing (F)

**EXS 530, CLASS AND LABORATORY SCHEDULE**

<b>Date</b>	<b>Lecture Topic</b>	<b>Preparatory Reading</b>	<b>Lab Topic</b>
Jan 9	Acute normal and abnormal physiological responses to exercise	None	None
Jan 16	*Quiz 1 General interview and examination	Ehrman (ch 4)	Blood pressure (Group A)
Jan 23	*Quiz 2 General principles of medical therapy and exercise pharmacology	Ehrman (ch 3) ACSM 10 <sup>th</sup> ed. (ch2)	Blood pressure (Group B)
Jan 30	*Quiz 3 ECG (part 1)	**Check Blackboard	Blood pressure (Group C)
Feb 6	*Quiz 4 ECG (part 2)	**Check Blackboard Ehrman (ch 3)	ECG (Group A)
Feb 13	Class presentations		ECG (Group B)
Feb 20	Winter break- NO CLASS	None...Enjoy!	
Feb 27	Mid-Term Exam (cumulative)	See prior	ECG (Group C)
Mar 6	Clinical exercise testing (part 1)	Ehrman (ch 5); ACSM (ch 5) **Check Blackboard	Exercise testing (Group A)
Mar 13	*Quiz 5 Clinical exercise testing (part 2)	**Check Blackboard	Exercise testing (Group B)
Mar 20	*Quiz 6 Cardiopulmonary exercise testing	**Check Blackboard	Exercise testing (Group C)
Mar 27	*Quiz 7 Exercise prescription & programming (part 1)- healthy, obesity, diabetes, hypertension, metabolic syndrome	Ehrman (ch 5-10); ACSM (ch 1, 6, 10) **Check Blackboard	Spirometry (Group A)
Apr 3	*Quiz 8 Exercise prescription & programming (part 2)- heart disease, heart failure, COPD, PAD	Ehrman (ch 12-17); ACSM (ch 9) **Check Blackboard	Spirometry (Group B)
Apr 10	Student presentations		Spirometry (Group C)
Apr 17	Student presentations		Student-led final exam preparation
Apr 24	Final Exam (cumulative)	See prior	