THE UNIVERSITY OF TEXAS AT EL PASO COLLEGE OF HEALTH SCIENCES KINESIOLOGY DEPARTMENT

KIN 4334 - CORONARY INTERVENTION PROGRAMS

COURSE DESCRIPTION

KIN 4334 is a senior-level, required course for all Kinesiology majors. This will semester that KIN 4334 will be conducted online for the Fall using both synchronous and asynchronous formats. The course includes a lecture section which will focus on cardiac rhythm recognition and basic ECG interpretation, while the lab section will focus on exercise testing.

Learning Outcomes: Upon successful completion of this lab, students will have the knowledge and skills to competently select and perform graded exercise tests in the research, clinical, or medical office setting. In the performance of exercise tests, students will have experience in narrating care, obtaining informed consent, prepping the 12 lead ECG for monitoring during exercise, measurement of blood pressure, heart rate, and oxygen saturation, assessing exercise intensity, recognizing cardiac arrhythmias, and basic ECG interpretation of stress test results. The implications of the results will also be familiar to students. They will be able to determine functional capacity and discuss treatment options of positive and/or negative stress test results.

COURSE PREREQUISITES KIN 4312

COURSE OBJECTIVES

Each student will demonstrate knowledge and understanding of:

- 1. Anatomy of the heart and circulation.
- 2. Electrophysiology of myocardial conduction system.
- 3. Cardiovascular system and the cardiovascular response at rest and during and after exercise.
- 4. Basic ECG interpretation.
- 5. Graded exercise testing and interpretation.

	Teaching Assistant (M/W labs)	Teaching Assistant (T lab)
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REQUIRED TEXTS

Aehlert, Barbara. ECGs Made Easy, 6th edition. Phoenix, AZ: Elsevier, 2018. ISBN 9780323401302

American College of Sports Medicine. <u>ACSM's Guidelines for Exercise Testing and Prescription</u>, 10th Edition. Baltimore, MD: Lippincott Williams & Wilkins, 2017. ISBN 9781496339072

Laboratory – Laboratory handouts will be posted on Blackboard.

GRADING SCALE

A = 90-100%

B = 80-89%

C = 70-79%

D = 60-69%

F = below 60%

EVALUATION OF STUDENTS

Total Lab points

300 points, worth 30% of total class grade

(lab work = 140 points; 70 points for associated quizzes, 15 points for short subject explorations, 25 points for participation, and 50 points for final exam)

270-300 pts = A 240-269 pts = B 210-239 pts = C 180-209 pts = D 179 and below = F

LABORATORY

- All students are required to read the assigned weekly readings in ACSM Guidelines for Exercise Testing.
- Although you may be discussing your labs on a discussion board, the answers to the lab questions must be in your
 own words. Do not copy from the book and do not copy from your group members. Copied answers or group answers
 will not receive credit.
- Lab assignments are to be submitted on time as indicated by the instructor.
 Late lab assignments will not be accepted, unless arrangements have been made with the instructor PRIOR to the missed lab.
- Students are expected to log on for lab at the assigned time, and remain online the entire lab session, unless arrangements have been made ahead of time with the instructor.
- If a student logs on late to class (>5 minutes), a deduction of 5 points will be taken from the participation grade
- No make-up labs will be allowed.
- Students are expected to be present for every lab. Missed labs will result in a deduction of 5 points to student participation grade along with the zero received for the missed assignment.
- All students must participate to get credit for lab assignments.
- Each week several items will be posted on Blackboard including:
 - A LAB PRESENTATION
 - o AN ASSOCIATED QUIZ
 - o A LAB SHEET WITH MORE INFORMATION AND QUESTIONS
- The weekly quiz should be taken after reading through the power point, it will host questions based off the presentation's content.
- You will also be given a lab sheet. Each lab sheet will have mock "data" Including the GXT table filled with results, and ECG tracings.
- There will be a series of questions that accompany the information on each lab sheet. They will be based off the presentation info, lab data, and information found in your ACSM manual.
- Each week's lab report will be worth 10 pts, the associated quiz will be worth from 5 to 10 pts
- Each week's material (presentation, quiz, and lab sheet) will be posted on Blackboard on Monday and be due at 11:59 pm on Friday of the same week.
- Extra educational information, such as videos demonstrating blood pressure and placing electrodes will be posted periodically. It is recommended to watch them not only for the educational benefit, but also because the info might help you when completing assignments. Information from the videos may be included on your final.

- The final week of class will be November 30th. You will have a final exam. Instructions will be announced within the last couple of weeks.
- All work should be submitted on Blackboard unless otherwise instructed.
- No late work or make-ups. All assignments are to be completed and submitted individually.
- TA office hours are virtual, however if you have any questions or concerns, we will be as quick as possible to answer via email (see beginning of syllabus for email info).

Students in Need of Assistance: UTEP seeks to provide reasonable accommodations for all qualified individuals who need accommodations or support for their learning. This university adheres to all applicable federal, state, and local laws, regulations and guidelines with respect to providing reasonable accommodations as required, affording equal educational opportunity. It is the student's responsibility to register with the Center for Accommodations and Support Services http://sa.utep.edu/cass/ in the UTEP Union Bldg. East Wing, Room 106 within the first two weeks of classes, and inform the faculty member to arrange for appropriate accommodations or support.

The CASS Office can also be reached in the following ways:

Web: http://cass.utep.edu/

Phone: (915) 747-5148 voice or TTY

LABORATORY SCHEDULE

DATE	ACSM Readings	TOPIC
Week 1 - 8/24		NO LAB!!
Week 2 - 8/31	Ch 1	Class introduction/Lab #1 Resting Blood Pressure
Week 3 – 9/7	Ch. 1, 2	Lab #2 Resting Blood Pressure and Exercise Blood Pressure
Week 4 - 9/14	Ch. 3, 5	Lab #3 Resting EKG and Blood Pressure
Week 5 – 9/21	Ch 1, 2, 3, 5	Lab #4 Resting EKG, Blood Pressure and Treadmill Exercise
Week 6 – 9/28	Appendix D	Lab #5 Resting EKG, Blood Pressure and Cycling Exercise, Lab Lecture: Patient Assessment, Informed Consent
Week 7 – 10/5	Ch.6	Lab #6 Case studies
Week 8 – 10/12	Ch 1, 2, 3, 5, 6 Appendix D	Lab #7 Naughton Protocol
Week 9 – 10/19	Ch 1, 2, 3, 5, 6 Appendix D	Lab #8 Astrand-Rhyming Protocol & Informed Consent, Narrating Care
Week 10 – 10/26	Ch 1, 2, 3, 5, 6 Appendix D	Lab #9 Ellestad Protocol
Week 11 – 11/2	Ch 1, 2, 3, 5, 6 Appendix D	Lab #10 Bruce Protocol
Week 12 – 11/9	Ch 1, 2, 3, 5, 6 Appendix D	Lab #11 Åstrand Treadmill Protocol
Week 13 – 11/16	None	No Lab – Thanksgiving Break
Week 14 – 11/23	Ch 1, 2, 3, 5, 6 Appendix D	Lab #12 Balke Protocol
Week 15 – 11/30		Lab Practical