

KIN 4383-010

EXERCISE PRESCRIPTION

FALL SEMESTER 2021



Instructor: Adam Parker, PhD

Email: adam.parker@angelo.edu

Phone: 325-486-6172

Office: CHP 103

Office Hours: MWF 9-11 am

Course Information

Course Description

This course covers training and theoretical background needed to competently assess levels of health/fitness and prescribe appropriate exercise activities for various healthy and clinical populations. The course is structured to prepare students for taking the ACSM Health Fitness or Clinical Exercise Specialist certification.

Course Credits

3 credit hours

Prerequisite and Co-requisite Courses

KIN 3370 and 3372

Prerequisite Skills

Accessing Internet websites, using ASU Library resources, and proficiency with Microsoft Word and/or PowerPoint are expectations of the KIN 4383.

Program Outcomes

Upon completion of the program of study for the KIN 4383, the graduate will be prepared to:

1. Develop an understanding of:
 - a. Evaluation of health status
 - b. Pathophysiology/risk factors associated with health appraisal and fitness testing
 - c. Electrocardiology interpretation
 - d. Pharmacologic drugs and effects on sport and exercise performance
 - e. Exercise prescriptions for treatment of clinical illnesses

2. Display knowledge of laboratory techniques and instrumentation associated with the scientific process of performance testing, interpretation, and prescription.

Student Learning Outcomes

| Student Learning Outcome By completing all course requirements, students will be able to: | Assignment(s) or activity(ies) validating outcome achievement: | Mapping to Program Outcomes |
|---|---|------------------------------------|
| Develop an understanding of: <ol style="list-style-type: none"> a. Evaluation of health status b. Pathophysiology/risk factors associated with health appraisal and fitness testing c. Electrocardiology interpretation d. Pharmacologic drugs and effects on sport and exercise performance e. Exercise prescriptions for treatment of clinical illnesses | Exams; Group Stress Testing; Exercise Prescription | |
| Display knowledge of laboratory techniques and instrumentation associated with the scientific process of performance testing, interpretation, and prescription. | Exams; Group Stress Testing; Exercise Prescription | |

Course Delivery

This is a face-to-face course with learning resources and supplemental materials posted in Blackboard.

Required Texts and Materials

American College of Sports Medicine. (2017). *ACSM's guidelines for exercise testing and prescription*. (10th ed.). Philadelphia, PA: Lippincott Williams & Wilkins. ISBN 978-1496339072

Dubin, D. (1995). *Rapid interpretation of EKGs*. (6th ed.). Tampa, FL: Cover Publishing. ISBN 978-0912912066

Technology Requirements

To successfully complete this course, students need to have access to a computer of their own or ASU's computer lab.

Communication

Faculty will respond to email and/or telephone messages within 24 hours during working hours Monday through Friday. Weekend messages may not be returned until Monday.

Written communication via email: All private communication will be done exclusively through your ASU email address. Check frequently for announcements and policy changes. In your emails to faculty, include the course name and section number in your subject line.

Virtual communication: Office hours and/or advising may be done with the assistance of the telephone, Collaborate, Skype, etc.

Grading

Evaluation and Grades

Course grades will be determined as indicated in the table below.

| Assessment | Percent/Points of Total Grade |
|----------------------------------|-------------------------------|
| Mid-term Exam | 30 |
| Final Exam | 30 |
| Exercise Prescription Assignment | 20 |
| Group Stress Test | 20 |
| Total | 100% |

Grading System

Course grades will be dependent upon completing course requirements and meeting the student learning outcomes.

The following grading scale is in use for this course:

A = 90.00-100 points

B = 80.00-89.99 points

C = 70.00-79.99 points

D = 60.00-69.99 points

F = 0-59.99 points (Grades are not rounded up)

Teaching Strategies

Students are expected to be “active learners.” It is a basic assumption of the instructor that students will be involved (**beyond the materials and lectures presented in the course**) discovering, processing, and applying the course information using peer-review journal articles, researching additional information and examples on the Internet, and discussing course material and clinical experiences with their peers.

Assignment and Activity Descriptions

Clinical Exercise Prescription

Develop an exercise prescription for one of the following people:

1. 40 year old, obese, female with type II diabetes
2. 83 year old, active, apparently healthy male with no other CVD risk factors
3. 22 year old pregnant female with no CVD risk factors
4. 55 year old, sedentary, male who smokes and has hypertension but has no symptoms of CVD
5. 16 year old, female (non-athlete) interested in maintaining health
6. 55 year old, male with recent CABG surgery (has already finished out-patient cardiac rehab)
7. 60 year old, female with osteoarthritis of her knees that limits exercise tolerance
8. 60 year old, female, former smoker with COPD

The program should cover a typical week of training, including FITT for cardiovascular exercise, resistance exercise, flexibility, and neuromuscular exercise (if appropriate). Develop an excel spreadsheet showing daily activity that is appropriate for your patient/client. Your prescription should follow the ACSM guidelines. Please provide SPECIFIC exercises, sets, reps, % intensity, etc. Additionally, a brief 2 page paper (double spaced, 12 point font) highlighting the important health considerations that should be made for the individual you choose. This paper should include a description of their CVD risk classification, whether or not they need a stress test for moderate or vigorous exercise, the level of professional supervision for stress testing, and the level of professional supervision for exercise training.

Late Work or Missed Assignments Policy

- A. All assignments are due at the beginning of the class on the due date. For students not turning in an assignment a grade of zero (0) will be recorded.

- B. Prior arrangements must be made with the instructor if an absence from an exam or presentation is unavoidable. In the event that an exam is missed, an alternate form of the test will be given to the student. The student has **one week** from the original test date to contact the instructor to arrange a make-up test. If no contact is made by the student within one week, the grade will be recorded as a zero (0).
- C. The student is responsible for all work and is encouraged to have a contact within the class. Students are encouraged to set up an appointment to meet with the instructor for additional information as needed.

General Policies Related to This Course

All students are required to follow the policies and procedures presented in these documents:

- [Angelo State University Student Handbook](#)¹
- [Angelo State University Catalog](#)²

Student Responsibility and Attendance

Students are expected to attend all scheduled class meetings. Chronic failure to attend class **will** affect your final grade in this class.

Academic Integrity

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Health and Human Services adheres to the university's [Statement of Academic Integrity](#).³

Accommodations for Students with Disabilities

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student's responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For

more information about the application process and requirements, visit the [Student Disability Services website](#).⁴ The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford
Director of Student Disability Services
Office of Student Affairs
325-942-2047
dallas.swafford@angelo.edu
Houston Harte University Center, Room 112

Incomplete Grade Policy

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 [Grading Procedures](#)⁵ for more information.

Plagiarism

Plagiarism is a serious topic covered in ASU's [Academic Integrity policy](#)⁶ in the Student Handbook. Plagiarism is the action or practice of taking someone else's work, idea, etc., and passing it off as one's own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality. Resources to help you understand this policy better are available at the [ASU Writing Center](#).⁷

Student Absence for Observance of Religious Holy Days

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for [Observance of Religious Holy Day](#)⁸ for more information.

Copyright Policy

Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of

course readings in printed or electronic form without written permission from the copyright holders or publishers.

Syllabus Changes

The faculty member reserves the option to make changes as necessary to this syllabus and the course content. If changes become necessary during this course, the faculty will notify students of such changes by email, course announcements and/or via a discussion board announcement. It is the student's responsibility to look for such communications about the course on a daily basis.

Title IX at Angelo State University

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Boone, J.D. You may submit reports in the following manner:

Online: www.angelo.edu/incident-form

Face to face: Mayer Administration Building, Room 210

Phone: 325-942-2022

Email: michelle.boone@angelo.edu

Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State's policy please visit: www.angelo.edu/title-ix.

Course Schedule

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|-------|---|
| 8/24 | Course Introduction |
| 8/26 | Review of VO _{2max} testing and other lab procedures – Meet in Lab |
| 8/31 | ACSM Ch. 1 - Benefits and Risks Associated with Physical Activity ACSM Ch. 2 - Preparticipation Health Screening and Risk Stratification |
| 9/2 | ACSM Ch. 3 – Pre-exercise Evaluations |
| 9/7 | ACSM Ch. 4 – Health Related Physical Fitness Testing and Interpretation |
| 9/9 | ACSM Ch. 5 and 6 – Clinical Exercise Testing and Interpretation |
| 9/14 | ECG Interpretation – Dubin 1, 2, 3 |
| 9/16 | ECG Interpretation – Dubin 4, 5 |
| 9/21 | ECG Interpretation – Dubin 5 |
| 9/23 | ECG Interpretation – Dubin 6 |
| 9/28 | ECG Interpretation – Dubin 7, 8 |
| 9/30 | ECG Interpretation – Dubin 9 |
| 10/5 | Resting 12-lead ECGs |
| 10/7 | ECG practice |
| 10/12 | Mid-term Review |
| 10/14 | Mid-Term Exam |
| 10/19 | ACSM Ch. 7 – General Principles of Exercise Prescription – Clinical Exercise Prescriptions Assigned |
| 10/21 | ACSM Ch. 8 – Exercise Prescription for Healthy Populations and Special Considerations |
| 10/26 | Discussion and Assessment of Lung Function (Maybe) |
| 10/28 | Discussion of Various Clinical Populations |
| 11/2 | ACSM Ch. 9 & 10 – Exercise Prescription for Patients with Cardiac Disease & Other Clinical Populations |
| 11/4 | Metabolic Calculations |
| 11/9 | Assessment of Body Composition |
| 11/11 | Pharmacology |

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| 11/16 | Practice Stress Testing |
| 11/18 | Practice Stress Testing |
| 11/23 | Thanksgiving |
| 11/25 | Thanksgiving |
| 11/30 | Group Stress Tests and ECG Interpretations |
| 12/2 | Group Stress Tests and ECG Interpretations |
| 12/7 | Final - Exam II – 10:30-12:30 |

Student Evaluation of Faculty and Course

Students in all programs are given the opportunity to evaluate their courses and the faculty who teach them. Evaluations are most helpful when they are honest, fair, constructive, and pertinent to the class, clinical experience, or course. Faculty value student evaluations, and use student suggestions in making modifications in courses, labs and clinical experiences.

Angelo State University uses the IDEA (Individual Development and Educational Assessment) system administered through Kansas State University for all course evaluations. The Office of Institutional Research and Assessment administers IDEA for the entire university, online and has established a policy whereby students can complete course evaluations free from coercion.

Select the SLO's you use

1. Gaining a basic understanding of the subject (e.g., factual knowledge, methods, principles, generalizations, theories)
2. Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course
3. Acquiring skills in working with others as a member of a team

End of Syllabus

¹ <https://www.angelo.edu/student-handbook/>

² <https://www.angelo.edu/catalogs/>

³ <https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php>

⁴ <https://www.angelo.edu/services/disability-services/>

⁵ <https://www.angelo.edu/content/files/14197-op-1011-grading-procedures>

⁶ <https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php>

⁷ https://www.angelo.edu/dept/writing_center/academic_honesty.php

⁸ <https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of>
