

KINE 295
HEALTH-RELATED EXERCISE PRESCRIPTION
FALL 2021

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Office: Adair Hall 115-B
Office Hours: Wednesday 12:30-1pm via Zoom (see Blackboard) for by appointment

CLASS MEETING: MWF 10:00 – 10:50 am

TEXTBOOK: *Exercise Testing and Prescription: A Health Related Approach*, 7th edition, David C. Nieman, McGraw-Hill Publishing Co., 2010.

Useful reference: *ACSM's Guidelines for Exercise Testing and Prescription*, 10th edition, Lippincott Williams & Wilkins, 2017.

Additional required class readings will be placed on Blackboard.

DESCRIPTION: This course addresses the scientific basis of designing effective and safe exercise programs. Principles of exercise prescription will focus on improving health-related fitness, rather than elite athletic performance. Since health-related fitness includes cardiovascular endurance, muscular fitness, body composition and flexibility, these fitness parameters will be emphasized. Using the Health People initiative as a foundation, the course will examine health disparities from social, economic, and environmental perspectives; and discuss the role of exercise and education in reducing these inequalities.

OBJECTIVES: This course is designed to:

- define health disparities and the societal implications of these disparities and possible chronic disease sequelae.
- discuss methods to reduce these inequalities, to include exercise and education.
- differentiate between health related and performance related physical fitness.
- provide a scientific framework for various conditioning techniques used to enhance cardiovascular endurance, muscular fitness, flexibility and body composition.
- describe the relationship between cardiovascular fitness and health.
- describe the relationship between muscular fitness and health.
- describe the relationship between body composition and health.
- describe the relationship between flexibility and health.
- provide students with the knowledge and skills to design a safe, effective exercise program for all healthy individuals regardless of age or sex.

- apply the principles of exercise prescription to special populations including cardiac patients, pulmonary patients, diabetics, children, the elderly and pregnant women.
- describe the impact of exercise on self-efficacy and psychological health in these special populations.
- encourage independent and critical thinking.

COURSE EVALUATION AND GRADING

The student's final grade will be determined as follows:

Exam #1	25%
Exam #2	25%
Final Exam	25%
Assignments	5%
Topic Checkpoints	20%

CLASS REQUIREMENTS/POLICIES

Class announcements will be posted on Blackboard or students will be notified by email when changes or additions are made to the syllabus or course on Blackboard.

Assignments will be turned in by 11:59 pm on the due date. Assignments will be checked for completion only. **Checkpoints will be due by 11:59pm the night before their corresponding exam.** Late assignments and checkpoints will only be accepted when a valid excuse has been preapproved.

All exams will be taken through Blackboard and have a 60-minute time limit. The final exam is not cumulative. The HonorLock software will be utilized and should be downloaded prior to the exam. Students unable to sit for the exam during the scheduled period are expected to provide timely notice and take their exams **prior to the absence**.

William & Mary accommodates students with disabilities in accordance with federal laws and university policy. Any student who feels they may need an accommodation based on the impact of a learning, psychiatric, physical, or chronic health diagnosis should contact Student Accessibility Services staff at 757-221-2512 or at sas@wm.edu to determine if accommodations are warranted and to obtain an official letter of accommodation. For more information, please see www.wm.edu/sas.

William & Mary has had an honor code since at least 1779. Academic integrity is at the heart of the university, and we all are responsible for upholding the ideals of honor and integrity. The student-led honor system is responsible for resolving any suspected violations of the Honor Code, and I will report all suspected instances of academic dishonesty to the honor system. The *Student Handbook* (www.wm.edu/studenthandbook) includes your responsibilities as a student and the full Code. Your full participation and observance of the Honor Code is expected. To read the Honor Code, see www.wm.edu/honor. **All academic work in this course, including topic checkpoints, assignments and exams, is to be your own work. Therefore, group work and use of previous course material to include but not be limited to assignments and exams are not permitted. When in doubt, it is your responsibility to confirm whether collaboration is permitted.**

Tentative Class Schedule

<u>Date</u>	<u>Topic</u>	<u>Reading</u>
9-1	Course Introduction, Health & Fitness	Chapter 1, Fjørtoft et al.
9-3	Health & Fitness Defined	Wu et al., and Healthy People 2020
9-6	Health & Fitness Defined	Chapter 1, Racette et al., Boyle et al.
9-8	Screening & Testing	Chapter 2
9-10	Add/Drop Deadline 11:59 pm Screening & Testing, Assignment #1 Due	Chapter 2
9-13	Contraindications to Exercise	Chapter 2
9-15	Introduction to Exercise Prescription	Chapter 6
9-17	Exercise Prescription	Chapter 6
9-20	Nutrition and Energy Pathways	Chapter 7
9-22	Nutrition and Energy Pathways	Chapter 7
9-24	Nutrition and Energy Pathways, Assignment #2 Due	Chapter 7
9-27	Review	
9-28	Exam #1 Checkpoints (Topics 1-4) Due	
9-29	Exam #1	
10-1	Cardiorespiratory Fitness	Chapters 3 & 6
10-4	Cardiorespiratory Fitness	Chapters 3 & 6
10-6	Cardiorespiratory Fitness	Chapters 3 & 6
10-8	Cardiorespiratory Fitness	Chapters 3 & 6
10-11	Muscular Strength and Endurance	Chapters 5 & 6
10-13	Muscular Strength and Endurance	Chapters 5 & 6
10-15	Muscular Strength and Endurance	Chapters 5 & 6
10-18	Fall Break – No Class	
10-20	Flexibility	pp. 148-150, 193-195, Wiggin
10-22	Detraining	p. 4
10-25	Body Composition, Assignment #3 Due	Chapters 4 & 11, Mellor et al.
10-27	Body Composition	Chapters 4 & 11
10-29	Body Composition	
11-1	Withdrawal Deadline 11:59pm Review	
11-2	Exam #2 Checkpoints (Topics 5-9) Due	
11-3	Exam #2	
11-5	Cardiac Patients	Chapter 8, Bassett
11-8	Cardiac Patients	Chapter 8
11-10	Cardiac Patients	Yudi et al.
11-12	Cancer Patients	Chapter 9, Wagoner et al.
11-15	Diabetic Patients	Chapter 10
11-17	Elderly Patients	Chapter 13, Brachman et al.
11-19	Elderly Patients	Chapter 13
11-22	Exercise Compliance	Conn et al.
11-24, 11-26	Thanksgiving Break – No Class	
11-29	Children and Pregnant Women	King and Swank, Yomoda
12-1	Exercise Risks, Assignment #4 Due	Burfoot
12-3	Exercise Risks	
12-6	Multiple Sclerosis Patients	Fleming et al.
12-8	Psychological Health	Chapter 12
12-10	Review	
12-16	Exam #3 Checkpoints (Topics 10-15) Due	
12-17	Final Exam due by 5:00 pm	