

George Mason University
College of Education and Human Development

KINE 370 – 004 Exercise Testing and Eval

3.000 Credits Spring 2021

Tuesday 7:20 pm -10:00 pm SciTech-Prince William Campus K Johnson Hall 134

On-campus F2F 50% Sync Instructional Method ([Zoom Call](#))

Faculty

Name: Robert C. Dofflemyer
Office Hours: 7:00pm-7:20 by appointment only
Office Location: No Location on campus this semester
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Prerequisites/Corequisites

None

University Catalog Course Description

This course provides students with an opportunity to develop an understanding of the assessment and evaluation process in the determination of physical fitness.

Course Overview

This course provides students with an opportunity to develop a solid understanding of the assessment and evaluation process used in physical education and exercise science.

Course Delivery Method

This course will be delivered using a hybrid (2-75% online) format. Course will be available via Blackboard Learning Management system (LMS) housed in the MyMason portal. You will log in to the Blackboard (Bb) course site using your Mason email name (everything before @masonlive.gmu.edu) and email password. The course site will be available on August 24, 2020. Overall, this will be a highly interactive class and students will be encouraged to participate.

Technical Requirements

To participate in this course, students will need to satisfy the following technical requirements:

- High-speed Internet access with standard up-to-date browsers. To get a list of Blackboard's supported browsers see:

https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support#supported-browsers

To get a list of supported operation systems on different devices see:

https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support#tested-devices-and-operating-systems

- Students must maintain consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course.
- Students may be asked to create logins and passwords on supplemental websites and/or to download trial software to their computer or tablet as part of course requirements.
- The following software plug-ins for PCs and Macs, respectively, are available for free download:
 - Adobe Acrobat Reader: <https://get.adobe.com/reader/>
 - Windows Media Player: <https://support.microsoft.com/en-us/help/14209/get-windows-media-player>
 - Apple Quick Time Player: www.apple.com/quicktime/download/

Expectations

- Course Week: Our course week will begin on Mondays and finish on Sundays.
- Log-in Frequency:
Students must actively check the course Blackboard site and their GMU email for communications from the instructor, class discussions, and/or access to course materials at least 5 times per week. In addition, students must log-in for all scheduled online synchronous meetings.
- Participation:
Students are expected to actively engage in all course activities throughout the semester, which includes viewing all course materials, completing course activities and assignments, and participating in course discussions and group interactions.
- Technical Competence:
Students are expected to demonstrate competence in the use of all course technology. Students who are struggling with technical components of the course are expected to seek assistance from the instructor and/or College or University technical services.
- Technical Issues:

Students should anticipate some technical difficulties during the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.

- **Workload:**
Please be aware that this course is **not** self-paced. Students are expected to meet *specific deadlines* and *due dates* listed in the **Class Schedule** section of this syllabus. It is the student’s responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.
- **Instructor Support:**
Students may schedule a one-on-one meeting to discuss course requirements, content or other course-related issues. Those unable to come to a Mason campus can meet with the instructor via telephone or web conference. Students should email the instructor to schedule a one-on-one session, including their preferred meeting method and suggested dates/times.
- **Netiquette:**
The course environment is a collaborative space. Experience shows that even an innocent remark typed in the online environment can be misconstrued. Students must always re-read their responses carefully before posting them, so as others do not consider them as personal offenses. *Be positive in your approach with others and diplomatic in selecting your words.* Remember that you are not competing with classmates, but sharing information and learning from others. All faculty are similarly expected to be respectful in all communications.
- **Accommodations:**
Online learners who require effective accommodations to insure accessibility must be registered with George Mason University Disability Services.

Learner Outcomes or Objectives

At the completion of the course, students should be able to:

1. Apply basic statistical analysis to data collected in the assessment process.
2. Develop health-related fitness plans for clients in recreational and rehabilitative settings.
3. Develop sport/motor fitness programs for work performance programs or clinical settings.
4. Identify fitness-related psychological testing protocols.
5. Interpret and apply assessment information by identifying summative and formative fitness, skill, cognitive, and affective measurement and evaluative techniques.

Professional Standards

This course meets the Commission on Accreditation of Allied Health Education Programs (CAAHEP) requirements and covers the American College of Sports Medicine’s Knowledge-Skills-Abilities (KSA's).

Upon completion of this course, students will have met the following professional standards:

KSA	Description	Lecture, Lab, or both
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	GENERAL POPULATION/CORE: PATHOPHYSIOLOGY AND RISK FACTORS	
1.2.2	Knowledge of cardiovascular, pulmonary, metabolic, and musculoskeletal risk factors that may require further evaluation by medical or allied health professionals before participation in physical activity.	Lecture
	GENERAL POPULATION/CORE: HEALTH APPRAISAL, FITNESS AND CLINICAL EXERCISE TESTING	
1.3.2	Knowledge of the value of the health/medical history.	Lecture
1.3.3	Knowledge of the value of a medical clearance prior to exercise participation.	Lecture
1.3.4	Knowledge of and the ability to perform risk stratification and its implications towards medical clearance prior to administration of an exercise test or participation in an exercise program.	Lecture
1.3.5	Knowledge of relative and absolute contraindications to exercise testing or participation.	Lecture
1.3.6	Knowledge of the limitations of informed consent and medical clearance prior to exercise testing.	Lecture
1.3.7	Knowledge of the advantages/disadvantages and limitations of the various body composition techniques including but not limited to: air displacement plethysmography (BOD POD [®] , dual energy X-ray absorptiometry (DEXA), hydrostatic weighing, skinfolds and bioelectrical impedance.	Lecture/Lab
1.3.8	Skill in accurately measuring heart rate, blood pressure, and obtaining rating of perceived exertion (RPE) at rest and during exercise according to established guidelines.	Lab
1.3.9	Skill in measuring skinfold sites, skeletal diameters, and girth measurements used for estimating body composition.	Lab
1.3.11	Ability to locate the brachial artery and correctly place the cuff and stethoscope in position for blood pressure measurement.	Lecture/Lab

1.3.12	Ability to locate common sites for measurement of skinfold thicknesses and circumferences (for determination of body composition and waist-hip ratio).	Lecture/Lab
1.3.13	Ability to obtain a health history and risk appraisal that includes past and current medical history, family history of cardiac disease, orthopedic limitations, prescribed medications, activity patterns, nutritional habits, stress and anxiety levels, and smoking and alcohol use.	Lecture
1.3.14	Ability to obtain informed consent.	Lecture
1.3.15	Ability to explain the purpose and procedures and perform the monitoring (HR, RPE and BP) of clients prior to, during, and after cardiorespiratory fitness testing.	Lecture
1.3.16	Ability to instruct participants in the use of equipment and test procedures.	Lecture/Lab
1.3.17	Ability to explain purpose of testing, determine an appropriate submaximal or maximal protocol, and perform an assessment of cardiovascular fitness on the treadmill or the cycle ergometer.	Lecture
1.3.18	Ability to describe the purpose of testing, determine appropriate protocols, and perform assessments of muscular strength, muscular endurance, and flexibility.	Lecture
1.3.19	Ability to perform various techniques of assessing body composition.	Lecture/Lab
1.3.21	Ability to identify appropriate criteria for terminating a fitness evaluation and demonstrate proper procedures to be followed after discontinuing such a test.	Lecture
1.3.23	Ability to identify individuals for whom physician supervision is recommended during maximal and submaximal exercise testing.	Lecture/Lab
	GENERAL POPULATION/CORE: PROGRAM ADMINISTRATION, QUALITY ASSURANCE, AND OUTCOME ASSESSMENT	
1.11.13	Knowledge of the importance of tracking and evaluating health promotion program results.	Lecture

	CARDIOVASCULAR: PATHOPHYSIOLOGY AND RISK FACTORS	
2.2.1	Knowledge of cardiovascular risk factors or conditions that may require consultation with medical personnel before testing or training, including inappropriate changes of resting or exercise heart rate and blood pressure, new onset discomfort in chest, neck, shoulder, or arm, changes in the pattern of discomfort during rest or exercise, fainting or dizzy spells, and claudication.	Lecture
	PULMONARY: PATHOPHYSIOLOGY AND RISK FACTORS	
3.2.1	Knowledge of pulmonary risk factors or conditions that may require consultation with medical personnel before testing or training, including asthma, exercise-induced asthma/bronchospasm, extreme breathlessness at rest or during exercise, bronchitis, and emphysema.	Lecture
	METABOLIC: PATHOPHYSIOLOGY AND RISK FACTORS	
4.2.1	Knowledge of metabolic risk factors or conditions that may require consultation with medical personnel before testing or training, including obesity, metabolic syndrome, thyroid disease, kidney disease, diabetes or glucose intolerance, and hypoglycemia.	Lecture

Required Texts

American College of Sports Medicine (ACSM), *ACSM's Guidelines for Exercise Testing and Prescription*, 10th Ed., Lippincott Williams & Wilkins, 2018.

ISBN-13: 978-1609139551

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, Tk20, hard copy).

- **Assignments and/or Examinations**

1. Quizzes (15%): There are 4 quizzes on specific chapters. You will have two attempts for each quiz. The highest score will be your grade for that quiz. You will have three hours to complete the quiz. Quizzes are open book.

2. Online Discussion participation/ Collaborate Ultra Attendance (25%). Your discussion will be graded based upon the rubric, which looks to quality, timeliness, responsiveness, and moving the discussion forward. Discussions will run from **to Sunday**, after which discussion postings will not count. You are expected to participate throughout the week in the discussions -not clump them all together on one day (see rubric).

You will be given online discussion participation points based on the quality of your responses and participation.

3. Video assessment Assignments/Practical check for learning (25%)

4. Exams (35%)

- **Other Requirements**

This class is a participation course so attendance is required.

Late Assignments: All assignments must be turned in on the due date given on the assignment sheet.

Instructor-Student Communication: I will respond to your emails within 48 hours. If I will be away from email for more than one day, I will post an announcement in the Blackboard course folder. Before sending an email, please check the following (available on your Blackboard course menu) unless the email is of a personal nature:

1. Syllabus
2. Ask Professor
3. On-demand Blackboard videos on how to use Blackboard features, and Technical Requirements.

Feel free to respond to other students in the Ask Professor forum if you know the answer.

Technology. You will need a reliable computer and internet access to view course materials in Blackboard. You will need to video record your two role-plays and you can do that with a smartphone or other video camera, such as Kaltura CaptureSpace in Blackboard.

- **Grading**

A	= 94 – 100	B+	= 88 – 89	C+	= 78 – 79	D	= 60 – 69
A-	= 90 – 93	B	= 84 – 87	C	= 74 – 77	F	= 0 – 59
		B-	= 80 – 83	C-	= 70 – 73		

Professional Dispositions

See <https://cehd.gmu.edu/students/policies-procedures/>

- a. **Academic Honesty:** You are expected to be familiar with and abide by the University's Honor Code. The Code can be found [here](#). It is your responsibility to see me if you have questions about these policies. George Mason University has an honor code that states the following:
To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the University Community have set forth this:
- b. Students must follow the university policy for [Responsible Use of Computing](#)
- c. **Student services:** The University provides range of services to help you succeed academically and you should make use of these if you think they could benefit you. I also invite you to speak to me (the earlier the better).
- d. Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.
- e. [The George Mason University Counseling and Psychological Services \(CAPS\)](#) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance. Counseling Center: Student Union I, Room 364, 703-993-2380.
- f. Students with disabilities who seek accommodations in a course must be registered with the [George Mason University Office of Disability Services \(ODS\)](#) and inform their instructor, in writing, at the beginning of the semester. All academic accommodations must be arranged through that office. Please note that accommodations **MUST BE MADE BEFORE** assignments or exams are due. I cannot adjust your grade after the fact.
- g. Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- h. [The George Mason University Writing Center](#) staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing. University Writing Center: Robinson Hall Room A114, 703-993-1200. The writing center includes assistance for students for whom English is a second language.
- i. **Diversity:** George Mason University promotes a living and learning environment for outstanding growth and productivity among its students, faculty and staff. Through its curriculum, programs, policies, procedures, services and resources, Mason strives to maintain a quality environment for work, study and personal growth.

Class Schedule

Date			Topic	Readings/Assignment
T	January (Zoom Call)	26	Review syllabi and health risk pre-assessment RHR,	Read Chapter 1 ACSM

T	February (Freedom Center)	2	Fitness assessment (Health related fitness components) Body Fat BIA, Muscular strength, Flexibility, Muscular Endurance assessments	Read Chapter 2 ACSM
T	February (Zoom Call)	9	Quizzes ACSM (1-2) Watch Kaltura Lecture on Stats/Data Collection/ Measures of Central Tendency/Variability	Read Chapter 3 ACSM
T	February (Zoom Call)	16	Data Collection/ Measures of Central Tendency/Variability//Lawfit Scoring	Study review for Exam 1 Read Chapter 4
T	February	23	Exam 1 (Statistics/health risks/health related components ACSM Chapter 1-4)	Read Chapter 5
T	March (Zoom Call)	2	Body composition-Lecture Goniometers/anthropometric measurements Body Composition-Lecture	Read Chapter 6 ACSM
T	March (Freedom Center)	9	Exercise Prescription Skin caliper practical	
T	March	16	Exam 2 (Body comp/exercise prescription test) -Exercise prescription/Skin caliper assessment video due	Study for Exam
T	March (Freedom Center)	23	Cardiorespiratory lecture Mile Run 1.5/Intensity HR check (Vo2max assessment)	
T	March (Zoom Call)	30	Cardiorespiratory lecture	Read Chapter 5
T	April (Freedom Center)	6	Blood Pressure Measurement Lab	

T	April	13	Exam 3 (cardiovascular fitness/Blood Pressure)	
T	April (Freedom Center)	20	<u>BP Video assignment due:</u> <u>Or visual practical</u> Return equipment	
T	April (Zoom Call)	27	Review for final	
T	May	4	Final Exam	

Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.

Core Values Commitment

The College of Education and Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles: <http://cehd.gmu.edu/values/>.

GMU Policies and Resources for Students

Policies

- Students must adhere to the guidelines of the Mason Honor Code (see <https://catalog.gmu.edu/policies/honor-code-system/>).
- Students must follow the university policy for Responsible Use of Computing (see <https://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).
- Students are responsible for the content of university communications sent to their Mason email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students **solely** through their Mason email account.
- Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see <https://ds.gmu.edu/>).
- Students must silence all sound emitting devices during class unless otherwise authorized by the instructor.

Campus Resources

- Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or <https://cehd.gmu.edu/aero/tk20>. Questions or concerns regarding use of Blackboard should be directed to <https://its.gmu.edu/knowledge-base/blackboard-instructional-technology-support-for-students/>.
- For information on student support resources on campus, see <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>

Notice of mandatory reporting of sexual assault, interpersonal violence, and stalking:

As a faculty member, I am designated as a “Responsible Employee,” and must report all disclosures of sexual assault, interpersonal violence, and stalking to Mason’s Title IX Coordinator per University Policy 1202. If you wish to speak with someone confidentially, please contact one of Mason’s confidential resources, such as Student Support and Advocacy Center (SSAC) at 703-380-1434 or Counseling and Psychological Services (CAPS) at 703-993-2380. You may also seek assistance from Mason’s Title IX Coordinator by calling 703-993-8730, or emailing titleix@gmu.edu.

For additional information on the College of Education and Human Development, please visit our website <https://cehd.gmu.edu/students/> .