

George Mason University
College of Education and Human Development
Kinesiology

KINE 370.DL1 —Exercise Testing and Evaluation
3 Credits, Spring 2021
T, R 10:30 – 11:45 AM, HYBRID

Faculty

Name: Dr. Oladipo Eddo
Office Hours: Virtually by appointment
Office Location: 201B K. Johnson Hall, SciTech Campus
Office Phone: 703-993-7183
Email Address: oeddo@gmu.edu

TA name: Mr. Adam Burke
TA email: aburke22@masonlive.gmu.edu

TA name: Mr. Michael Toczko
TA email: mtoczko@masonlive.gmu.edu

Prerequisites/Corequisites

BIOL 124, BIOL 125, ATEP 300, KINE 310

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
	GENERAL POPULATION/CORE: PATOPHYSIOLOGY 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.
	GENERAL POPULATION/CORE: HEALTH APPRAISAL, FITNESS AND CLINICAL EXERCISE TESTING
1.3.2	Knowledge of the value of the health/medical history.
1.3.3	Knowledge of the value of a medical clearance prior to exercise participation.
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.
1.3.5	Knowledge of relative and absolute contraindications to exercise testing or participation.
1.3.6	Knowledge of the limitations of informed consent and medical clearance prior to exercise testing.
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.
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.
1.3.9	Skill in measuring skinfold sites, skeletal diameters, and girth measurements used for estimating body composition.
1.3.11	Ability to locate the brachial artery and correctly place the cuff and stethoscope in position for blood pressure measurement.
1.3.12	Ability to locate common sites for measurement of skinfold thicknesses and circumferences (for determination of body composition and waist-hip ratio).
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.

1.3.14	Ability to obtain informed consent.
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.
1.3.16	Ability to instruct participants in the use of equipment and test procedures.
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.
1.3.18	Ability to describe the purpose of testing, determine appropriate protocols, and perform assessments of muscular strength, muscular endurance, and flexibility.
1.3.19	Ability to perform various techniques of assessing body composition.
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.
1.3.22	Ability to identify individuals for whom physician supervision is recommended during maximal and submaximal exercise testing.
	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.
	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.
	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.
	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.

Required Texts

ACSM's Guidelines for Exercise Testing and Prescription. 10th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2018.

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**

Assignments - There will be two assignments due during the semester and will pertain to subject matter being covered. Assignments will assess students understanding of exercise test selection, implementation of test results, and program design decisions.

Labs/Activities - There will be 5 labs due during the semester. These are intended to give students hands-on, practical experience with concepts that are covered in class.

Reading Comprehension Quizzes - These quizzes will assess your comprehension of the assigned readings. The format of quizzes may be true/false, multiple choice, short answer and/or problem solving.

Exams - Each student will be required to complete two exams and a final exam. The final exam will be cumulative. The format for all exams will be multiple choice, true/false, short essays, and problem-solving questions.

Professionalism

Students are expected to behave in a professional manner. Depending on the setting professionalism may look slightly different but generally consists of similar components. For undergraduate Kinesiology students in a classroom setting professionalism generally consists of the following components:

Attendance and Participation (50% of Professionalism Grade) – Show up on time to online class meetings, pay attention, and engage yourself in the lessons, discussions, class activities, etc. Demonstrate that you have an interest in the subject matter. Follow George Mason University policies for any missed classes. Arriving to class late or leaving early will be counted as an absence. Students are expected to show up prepared to class and participate during class activities. Students who know they will need to miss a class for a legitimate reason should contact the instructor before the class. Students who unexpectedly miss a class for an excused reason should contact the instructor within 24 hours of missing the class. Make-up tests, quizzes, assignments, or other grades will be granted for excused absences only. Excused absences include: serious illness, official university excused absences and extenuating circumstances. It is the student's responsibility to contact the instructor in order to obtain the make-up work.

Communication (25% of Professionalism Grade) – When communicating with the instructor and classmates, either face-to-face or via email, students should address the other person appropriately, use appropriate language and maintain a pleasant demeanor.

Example email with instructor:

Dr. Last Name,

I have a question regarding....

Regards,

Student's Name

Example in-person interaction with instructor:

Student: Professor (*instructor's last name*) I have a question regarding....

Professor: (Student's name) I would be happy to help you. What is your question?

Student: My question is.....

Professor: The answer to that question is...

Student: Professor (*instructor's last name*) thank you for your time and availability to answer my questions.

Responsibility/Accountability/ Honesty/Integrity– Professionals take responsibility for their actions and are accountable. This can occur at multiple levels but generally consists of completing assignments on time, submitting work that is of the appropriate quality, honoring commitments and owning up to mistakes. Students are expected to be honest with the instructor, classmates and themselves. Professionals keep their word when committing to something and act in an ethical manner. See George Mason University policy for further guidance.

Self-Improvement/Self-awareness– One should be aware of their strengths/weaknesses and constantly seek to improve. Professionals regularly seek out opportunities to increase their knowledge and improve their current skill set. Specific to this class an example of how a student may demonstrate self-improvement/self-awareness is by attending office hours following a poor grade on an exam or assignment.

Professionalism evaluation – Any professionalism violation will be documented by the instructor. Violations will result in a 1-point deduction from the final average. In extreme cases the student may be dismissed from the class at the discretion of the instructor.

- **Other Requirements**

- **Email Correspondence**

- Only messages that originate from a George Mason University email address will be accepted. ***Emails with no subject or no text in the body will not be***

acknowledged. All email will be responded to in the order in which it is received. Students should allow 48 hours for a response.

- **Course Performance Evaluation Weighting**

This course will be graded on a point system, with a total of 100 possible points.

Evaluation	Frequency	% of Grade
Assignment	2	15%
Attendance, Participation, and Professionalism	NA	10%
Exams	2	20%
Final Exam (Cumulative)	1	20%
Labs/Activities	5	20%
Reading Comprehension Quizzes (RCQ)	7	15%
Total		100%

Final Grades:

Grading Scale

A = 94 – 100	B+ = 87 – 89	C+ = 77 – 79	D = 60 – 69
A- = 90 – 93	B = 84 – 86	C = 74 – 76	F = 0 – 59
	B- = 80 – 83	C- = 70 – 73	

Once your FINAL GRADE, at the end of the semester is posted on mymasonportal/blackboard, you will have 24 hours to inquire about it. After that period, your grade will be posted as final on Patriot Web.

Notes:

- 1) Although a B- is a satisfactory grade for a course, students must maintain a 3.00 average in their degree program and present a 3.00 GPA on the courses listed on the graduation application.
- 2) Any student asking for their grade to be rounded up, increased a letter grade, extra credit only for themselves at the end of the semester, etc. may have their final average reduced by up to 2 points at the discretion of the instructor.

Professional Dispositions

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

Students are held to the standards of the George Mason University Honor Code. You are expected to attend all class sections, actively participate in class discussions, complete in-class exercises and fulfill all assignments. Make-up tests, quizzes, assignments, or other grades will be granted for excused absences only. Excused absences include: serious illness, official university excused absences and extenuating circumstances. It is the student's responsibility to contact the instructor in order to obtain the make-up work. Assignments must be turned in on the specified date due or **no credit will be given.**

Class Schedule

Date		Suggested Activity for the Day	Assignments Due
Module 1	Week 1 Jan 25-31	Synchronous Meeting – Tuesday @ 10:30AM Course Introduction	Read Chapter 1
		Video Lecture Slides – Chapter 1: PA Benefits and Risk	Chapter 1 RCQ Due Jan 31 st .
	Week 2 Feb 1-7	Synchronous Meeting – Tuesday @ 10:30AM	Read Chapter 2
		Video Lecture Slides – Chapter 2: Exercise Pre-participation Health Screening	Chapter 2 RCQ Due Feb 7 th .
Module 2	Week 3 Feb 8-14	Synchronous Meeting – Tuesday @ 10:30AM	Read Chapter 3
		Video Lecture Slides – Chapter 3: Pre-exercise Evaluation	Chapter 3 RCQ Due Feb 14 th .
	Week 4 Feb 15-21	Synchronous Meeting – Tuesday @ 10:30AM	Read Chapter 4 (pp 66-69)
		Video Lecture Slide – Chapter 4: Data Collection/ Measures of Central Tendency/ Variability	
	Week 5 Feb 22-28	Lab/Activity 1: Blood Pressure & Heart Rate <i>Location – SciTech FAFC</i> <i>Team 1 – Feb 23 @ 10:30AM</i> <i>Team 2 - Feb 25 @ 10:30AM</i>	
Complete Mason COVID Health Check prior to arriving on campus.			
Module 3	Week 6 Mar 1-7	Exam #1	Exam 1 Due Mar 3rd
		Video Lecture Slide – Chapter 4: Body Composition	Read Chapter 4 (pp 69-79) Lab/Activity 1 report Due Mar 7th

Module 4	Week 7	Mar 8-14	Lab/Activity 2: Body Composition <i>Location – SciTech FAFC</i> <i>Team 1 – Mar 9 @ 10:30AM</i> <i>Team 2 – Mar 11 @ 10:30AM</i>	
			Complete Mason COVID Health Check prior to arriving on campus. Video Lecture Slides – Chapter 4: Cardiovascular Fitness	Read Chapter 4 (pp 79-94) Chapter 4 (pp 79-94) RCQ Due Mar 14 th .
	Week 8	Mar 15-21	Synchronous Meeting – Tuesday @ 10:30AM	Read Chapter 4 (pp 94-102)
			Video Lecture Slides – Chapter 4: Muscular Fitness	Chapter 4 (pp 94-102) RCQ Due Mar 21 st . Lab/Activity 2 report Due Mar 21st
	Week 9	Mar 22-28	Lab/Activity 3: Cardiovascular Assessment <i>Location – SciTech FAFC</i> <i>Team 1 – Mar 23 @ 10:30AM</i> <i>Team 2 - Mar 25 @ 10:30AM</i>	
			Complete Mason COVID Health Check prior to arriving on campus. Review for Exam #2	
	Week 10	Mar 29- Apr 4	Office hours	Lab/Activity 3 report Due Mar 31st
			Exam #2	Exam 2 Due Apr 4th
	Week 11	Apr 5-11	Lab/Activity 4: Muscle Fitness <i>Location – SciTech FAFC</i> <i>Team 1 – Apr 6 @ 10:30AM</i> <i>Team 2 – Apr 8 @ 10:30AM</i>	Read Chapter 4 (pp 102-105)
			Complete Mason COVID Health Check prior to arriving on campus.	

Module 5			Video Lecture Slides – Chapter 4: Flexibility and Neuromotor	Assignment 1 Due Apr 11th
	Week 12	Apr 12-18	Synchronous Meeting – Tuesday @ 10:30AM	Lab/Activity 4 report Due Apr 14th Read Chapters 5
			Video Lecture Slides – Chapter 5: Clinical Exercise Testing and Interpretation	Chapter 5 RCQ Due Apr 18 th .
	Week 13	Apr 19-25	Lab/Activity 5: Flexibility <i>Location – SciTech FAFC</i> <i>Team 1 – Apr 20 @ 10:30AM</i> <i>Team 2 – Apr 22 @ 10:30AM</i> Complete Mason COVID Health Check prior to arriving on campus.	
	Week 14	Apr 26-30 <i>Last week of classes</i>	Study	Lab/Activity 5 report Due Apr 28th
		May 1-2	Final Exam Review	Assignment 2 Due May 2nd
	Week 15	May 3-9 <i>Exam Period</i>	Final Exam	Final Exam Due Midnight on May 9th

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/> .

Student Acknowledgement of Syllabus

I, _____, by signing below, attest to the following:
(Print First and Last Name)

- *I have read the course syllabus for KINE 370 in its entirety, and I understand the policies contained therein. This syllabus serves as a binding contract for KINE 370 between the instructor and me.
- *I have a clear understanding of the due dates for assignments and examinations, and I accept responsibility for the material.
- *I am aware that failure to submit assignments by the dates assigned will result in no points awarded as late work will not be accepted.
- *I understand that if I am using emitting sound technology or personal computers I will be dismissed from class for the day, counted as an absence, and not permitted to make up missed assignments
- *I understand the instructor reserves the right to alter the provided schedules as necessary and I am responsible for the assignments and examination dates for the most current version of the syllabus schedule.
- *I accept responsibility for reading announcements that are sent to me via e-mail through BlackBoard/MyMason Portal; it is my responsibility to access my Blackboard/MyMason Portal e-mail for messages, or forward Blackboard/MyMason Portal e-mail as per the directions provided in the syllabus.
- *Points cannot be earned in this class until you have signed and handed this form to the instructor.

(Signature) (Date)

(Student Copy: This copy should remain attached to your syllabus)



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- *Points cannot be earned in this class until you have signed and handed this form to the instructor.

(Signature) (Date)

(Instructor Copy: Submit to the instructor at the end of the first week)