

**George Mason University**  
**College of Education and Human Development**  
**Kinesiology**

KINE 370 (001) —Exercise Testing and Evaluation  
3 Credits, Spring 2020  
M, W 10:30 – 11:45 AM, Colgan Hall 302 – SciTech Campus

**Faculty**

Name: Dr. Oladipo Eddo  
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TA name:

TA email:

**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**

The course is a mix of a lecture and discussion course. However, other approaches may be used to facilitate learning. This includes videos, demonstrations and in-class activities. Overall, this will be a highly interactive class and students will be encouraged to participate.

**Learner Outcomes or Objectives**

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

1. Apply basic statistical analysis of data collected 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:

<b>KSA</b>	<b>Description</b>
	<b>GENERAL POPULATION/CORE: PATOPHYSIOLOGY AND RISK FACTORS</b>
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.
	<b>GENERAL POPULATION/CORE: HEALTH APPRAISAL, FITNESS AND CLINICAL EXERCISE TESTING</b>
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.
	<b>GENERAL POPULATION/CORE PROGRAM ADMINISTRATION, QUALITY ASSURANCE, AND OUTCOME ASSESSMENT</b>
1.11.13	Knowledge of the importance of tracking and evaluating health promotion program results.
	<b>CARDIOVASCULAR: PATHOPHYSIOLOGY AND RISK FACTORS</b>
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.
	<b>PULMONARY: PATHOPHYSIOLOGY AND RISK FACTORS</b>
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.
	<b>METABOLIC: PATHOPHYSIOLOGY AND RISK FACTORS</b>
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. 10<sup>th</sup> Edition. Lippincott Williams & Wilkins (2018). ISBN-13: 9781496339065

### 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).

<b>Evaluation</b>	<b>Frequency</b>	<b>% of Grade</b>
Assignments	2	15% (7.5% ea)
Attendance, Participation, and Professionalism	NA	10%

Exams	2	20% (10% ea)
Final Exam (Cumulative)	1	20%
Labs	5	35% (7% ea)
<b>Total</b>		<b>100%</b>

### **Description of Evaluation**

**Assignments** There will be 2 assignments due during the semester and will pertain to subject matter being covered. Details will be provided during class time.

**Labs** 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.

**Attendance, Participation, & Professionalism** Your attendance, participation, and professionalism in

#### 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	

class will be recorded. Students not participating will be counted as absent.

**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.

### **Technology Use During Class**

As per GMU policy, all sound emitting technology is required to be turned off during the class meeting time. No sound emitting technology (e.g., cell phones, smart phones, iPads, Tablets, pagers, etc.) is allowed at any time during the class period. Students who are observed using any form of technology inappropriately (e.g., sending text messages from cell phones, visiting social networking sites from laptops, etc) will be dismissed from class for the day, counted as an absence, and not permitted to make up missed assignments. Additionally, no laptop computers (e.g., netbooks, notebooks, etc.) will be permitted for use during class time unless with permission from 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 at the beginning of class on the specified date due or **no credit will be given**.

**Communication** – When communicating with the instructor and classmates, either face-to-face or via email (see below), students should address the other person with respect, use appropriate language, and maintain a pleasant demeanor. Students who fail to do may be asked to leave class, and will receive a grade of zero for all assignments or activities missed during that class period.

E-mail Correspondence - Messages must be in a professional format and originate from a Mason address:

Dear Dr. Eddo (*Beginning salutation*),  
 I have a question regarding one of the assignments. (*Text body*)  
 Respectfully, (*Ending Salutation*)  
 Student's name (*Your name*)

### Class schedule

Date	Topic	Readings/Assignments	Location
1/22	Syllabus + Day 1 activities		Colgan Hall 302
1/27	Health Related Fitness Components PA Benefits and Risk	Chapter 1	Colgan Hall 302
1/29	PA Benefits and Risk & Exercise Pre-participation Health Screening	Chapter 1 & 2	Colgan Hall 302
2/3	Exercise Pre-participation Health Screening	Chapter 2	Colgan Hall 302
2/5	Pre-exercise Evaluation	Chapter 3	Colgan Hall 302
2/10	Pre-exercise Evaluation	Chapter 3	Colgan Hall 302
2/12	Data Collection/ Measures of Central Tendency/ Variability <b>Assignment</b>		Colgan Hall 302
2/17	Data Collection/ Measures of Central Tendency/ Variability		Classroom FAFC
2/19	<b>Lab 1: Blood pressure &amp; Heart Rate</b>	<b>Assignment 1 Due</b>	SMART Lab FAFC
2/24	<b>Exam 1</b>		Colgan Hall 302
2/26	Body Composition	Chapter 4 ( <b>Lab 1 Due</b> )	Colgan Hall 302
3/2	<b>Lab 2: Body Composition Assessment</b>		SMART Lab FAFC
3/4	<b>Lab 2: Body Composition Assessment</b>		Classroom FAFC
3/9	<b>Spring Recess</b>		
3/11	<b>Spring Recess</b>		
3/16	Cardiovascular Fitness	Chapter 4	Colgan Hall 302
3/18	<b>Lab 3: Cardiovascular Assessment</b>	<b>Lab 2 Due</b>	Classroom FAFC
3/23	<b>Lab 3: Field Cardiovascular Assessment</b>		Classroom FAFC

3/25	<b>Exam 2</b>		Colgan Hall 302
3/30	Muscular Strength and Endurance	Chapter 4 ( <b>Lab 3 Due</b> )	Colgan Hall 302
4/1	<b>Lab 4: Muscular Endurance Assessment</b>		Classroom FAFC
4/6	<b>Lab 4: Muscular Strength Assessment</b>		Classroom FAFC
4/8	Flexibility and Neuromotor	Chapter 4	Colgan Hall 302
4/13	Flexibility and Neuromotor	( <b>Lab 4 Due</b> )	Classroom FAFC
4/15	<b>Lab 5: Flexibility and Neuromotor</b>		Classroom FAFC
4/20	Clinical Exercise Testing and Interpretation	Chapter 5	Colgan Hall 302
4/22	Clinical Exercise Testing and Interpretation	( <b>Lab 5 Due</b> )	Colgan Hall 302
4/27	Bonus Lab?		SMART Lab FAFC
4/29	Exam Review		Colgan Hall 302
5/4	Flex Day	<b>Assignment 2 Due</b>	Colgan Hall 302

**Final exam: Wednesday May 6<sup>th</sup> at 10:30AM**

*Note: The instructor reserves the right to make changes to the course syllabus and/or schedule at any time. Students will always be informed of any changes made*

### **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](mailto: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](mailto:titleix@gmu.edu).

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

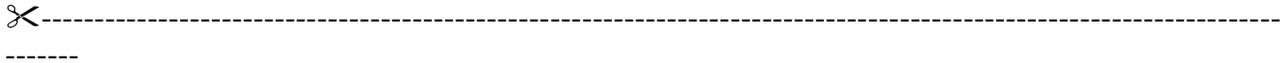
**Student Acknowledgement of Syllabus**

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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\_\_\_\_\_  
(Signature) (Date)

*(Instructor Copy: Submit to the instructor at the end of the first class meeting)*