

George Mason University
College of Education and Human Development
PhD in Education – Exercise, Fitness and Health Promotion Specialization
EFHP 811.DL3 – Motor Learning and Control
3 Credits, Fall 2021
Friday: 7:30AM – 8:45 AM
Online | Science & Technology Campus

Faculty

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Prerequisites/Corequisites

Admission to the PhD in Education Program or Permission of Instructor

University Catalog Course Description

Examines motor control and learning theories and analyzes motor skill development including the roles of information processing, practice, feedback, and motivation.

Course Overview

The course is designed to teach students the advanced principles and concepts of motor control and learning so they might apply it to their future practice.

Course Delivery Method

This course will be delivered online (76% or more) using synchronous and an asynchronous format 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 23, 2021.

Under no circumstances, may candidates/students participate in online class sessions (either by phone or Internet) while operating motor vehicles. Further, as expected in a face-to-face class meeting, such online participation requires undivided attention to course content and communication.

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:

Because asynchronous courses do not have a “fixed” meeting day, our week will start on Monday, and finish on Sunday.

- 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 3 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

This course is designed to enable students to do the following:

1. Summarize motor control and learning concepts and theories
2. Appraise critical issues in the motor control and learning literature
3. Integrate motor learning theories to explain motor skill performance and learning
4. Synthesize the role of motor control and learning in information processing, practice, feedback, and motivation
5. Analyze how motor control and learning concepts influence motor performance
6. Elaborate on practical applications of motor control and learning
7. Develop intervention plans to apply motor control and learning concepts to optimize human movement

Required Texts

Schmidt and Lee. Motor Control and Learning: A Behavioral Emphasis. Human Kinetics. 6th edition. 978-1492547754

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 Examinations**

- **Final Examination:** Students will have 1 final cumulative examination. The examination may include, but not be limited to multiple choice, true-false questions and written short answer essays.
- **Curriculum Portfolio:** Students will prepare a portfolio which will include PowerPoint presentations, lesson plans and quizzes corresponding to 8 teaching topics covered during the class. Detailed instructions will be provided to students at the start of the semester.
- **Practical/Clinical Question Paper & Presentation:** The paper will provide experience in developing an in-depth understanding of motor learning and control literature with an application to an issue you are interested in. Detailed instructions will be provided to students at the start of the semester.
- **Article Presentation:** Students will present 1 article to the class during the semester. The article presentations will expose students to past and current research on an overarching topic covered that day in class. Detailed instructions will be provided to students at the start of the semester.

- **Course Performance Evaluation Weighting**

The course will be graded on a total of 100 points:

ASSESSMENT METHOD	POINTS
Final Examination	10
Curriculum Portfolio	40
Research Paper & Presentation	40
Article Presentation	10
TOTAL	100

- **Grading Policies**

The student's final letter grade will be earned based on the following scale:

Grade	Percentage
A	94 – 100%
A-	90 – 93%
B+	88 – 89%
B	84 – 87%
B-	80 – 83%
C	70 – 79%
F	0 – 69%

Note: Although a B- is a satisfactory grade for a course, students must maintain a 3.00 average in their degree program.

Professional Dispositions

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

Class Schedule

Week	Topic	Chapter/Assignment Due Date
1 – 8/27	Introduction to Motor Learning & Motor Control	Chapter 1 & 2 Articles on Blackboard
2 – 9/3	Teaching Topic #1: Human Information Processing	Chapter 3 Chapter 3 Teaching Materials Due
3 – 9/10	Teaching Topic #2: Attention and Performance	Chapter 4 Chapter 4 Teaching Materials Due
4 – 9/17	Teaching Topic #3: Motor Learning Concepts and Research Methods	Chapter 10 Chapter 10 Teaching Materials Due
5 – 9/24	Teaching Topic #4: The Learning Process	Chapter 13 Chapter 13 Teaching Materials Due
6 – 10/1	Teaching Topic #5: Conditions of Practice Teaching Topic #6: Augmented Feedback	Chapter 11 & 12 Chapter 11 Teaching Materials Due Chapter 12 Teaching Materials Due
7 – 10/8	Teaching Topic #7: Retention and Transfer Teaching Topic #8: Individual Differences and Capabilities (<i>if needed</i>)	Chapter 14 & 9 Chapter 14 Teaching Materials Due Chapter 9 Teaching Materials Due
8 – 10/15	Teaching Topic #9: Sensory & Central Contributions to Motor Control	Chapter 5 & 6
9 – 10/22	Teaching Topic #10: Principles of Speed & Accuracy, Coordination	Chapter 7 & 8
10 – 10/29	Teaching Topic #11: Coordination & Synergies	Chapter 8
11 – 11/5	Optimization in Motor Control	Articles assigned by instructor

12 –11/12	Clinical Application of Motor Learning and Control Principles	Chapters and articles assigned by instructor
13 –11/19	Workday for research papers – class time will be used to ask questions and obtain feedback	
14 –11/26	No Class - Thanksgiving	
15 – 12/3	Research Paper Presentations	Presentation Due 12/3 by 7:30 am; Paper due 12/10 by Midnight
16	Final Exam	Due date TBA

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/> .