

HPK 350-MOTOR LEARNING AND CONTROL

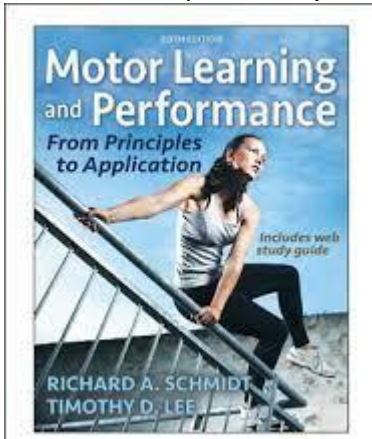
Fall 2024

Instructor: Dr. Sandy Kimbrough
Office: NHS 146
Class Meeting Time: TR 11:00-12:15
Email response time: within 1 business day

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Office hours: W 1-5, R 3:30-4:30
Preferred method of communication: email or F2F

Textbook

Motor Learning and Performance, by [Richard A. Schmidt](#) and Timothy D. Lee; 6th edition. I recommend but not do not require that you have access to supplemental materials that come with a new book.



Catalog Description: The study of the acquisition of psychomotor skill and neuromuscular function in the control of movement.

Course objectives

Upon completion of the course, the student should be able to...

1. Identify the differences between motor learning, performance, control, and development and discuss the assessment and classification of motor skills.
2. Discuss the role of motor learning and skill performance within the general framework of Kinesiology.
3. Identify and discuss concepts associated with sensation, perception, and movement preparation.
4. Discuss the differences between open-loop and closed-loop accounts of movement control as well as demonstrate an understanding of the speed-accuracy principle in light of open and closed-loop accounts of motor control and learning.
5. Discuss concepts related to motor learning including stages of learning, retention, transfer, the role of instructions, motivation, and instruction.
6. Compare and contrast various models of human memory and identify memory processes that contribute to skilled motor performance and their usage in studying motor learning and motor control.
7. Have a basic understanding of the information processing approach applied to the study of motor learning and control as well as several alternative theoretical approaches.
8. Explain the role of information feedback and practice scheduling in regards to motor learning and motor skill performance, respectively.

Course Objectives continued.

Students will.....

1. Demonstrate an awareness of the evolution of the field of study, motor behavior.
2. Identify strategies for investigating motor performance.

3. Describe and apply human information processing.
4. Demonstrate an understanding of the relationship between attention and motor behavior.
5. Demonstrate knowledge of the sensory contribution to motor control.
6. Describe major central contributions to motor control.
7. Identify and apply principles of simple movement to motor behavior strategies.
8. Describe coordination and motor control.
9. Describe the impact of individual differences and capabilities on motor control.
10. Demonstrate knowledge of motor learning concepts and research strategies.
11. Identify the conditions of practice affecting motor learning and performance.
12. Demonstrate an understanding of motor development and the importance of MD in the learning/teaching process.
13. Describe the impact of feedback on motor learning and performance.
14. Apply principles of the learning process.
15. Identify the effect of retention and transfer on motor learning and performance.
16. Demonstrate an awareness of the art and science of motor behavior, control, learning, and performance.

COURSE REQUIREMENTS

Student and Instructor Expectations

Expectations are high for both of us. I strive to be the best teacher possible. I expect you to perform to the best of your ability. Making an “A” in this class is an accomplishment, and will be earned only by those who are willing to put forth the necessary effort. There is no grading curve - you will be assigned the grade you earn!!!!

Chat Sessions

Periodically throughout the semester, I will host a “chat time” either live on Zoom where you can meet with me and other students to talk about course content. This is not me re-lecturing, nor is it me telling you what is on the test(s). It is an opportunity for you to engage your mind in the topic and enhance your grade (hopefully) by learning at a deeper level.

Submitting assignments/using the drop box

All assignments will have a “submission folder.” When you submit an assignment, it MUST be a WORD document (or EXCEL document if it is a spreadsheet), and it must be titled appropriately. Do NOT submit a .pdf, .pages, or any other form of document! If one of the assignments is called “leadership assignment” and your last name is Collins, the name of the document must be “Collins leadership.” At the top of the first page of every assignment, you must include your name and the name of the assignment. For spreadsheets, gridlines should be showing and a header should include your name and the name of the assignment. Print preview your document so that if printed, no cells/columns, etc are hanging out off the edge of a page. If you do not save, submit, name and/or label the document correctly, you may lose up to 20% of the value of that assignment.

Feedback on assignments

For some assignments, I may save your work, then use the “track changes” feature on the document itself to make corrections, write comments, etc. I will then attach the document back to you so you will have written feedback from me. USE this information to improve your work on future assignments.

Evaluation

Sections 1-4	100 points per section
Verbal Final Exam	100 points

Grading Scale

450-500 pts	A
400-449 pts	B
350-399 pts	C
300-349 pts	D
0-299 pts	F

Section Quizzes and Participation

- Each section will contain several lectures. At the end of each lecture, you will be directed to do some laboratory/research-type work and then participate in a discussion, take a quiz, and/or complete an assignment.
- ALL portions of each section MUST be completed by that section's "end date." You MUST do the 4 sections in order. Assignments, quizzes, etc, not submitted by the due date will receive a grade of zero. Do not wait until the last minute.
- The total point value for each section accounts for 20% of the course grade. The total point value for each section will be 100.

Final Examination.....verbal

It is extremely important that you are LEARNING the information that is being covered in the lectures and the textbook. Toward the end of the semester, I will send you an e-mail asking you to select a preferred exam from a list. We will meet via Zoom. Questions will be literally "pulled from a bowl" based on a list of questions I have provided to you at or near the conclusion of each section. You will answer 8 questions, with a time limit of 3 minutes per question. Each question is worth 12 points, with a bonus +4 for being on time 😊 If you do not sign up or show up to your final, you will receive a zero. If you wait to sign up until all the available time slots have already passed, I will NOT create extra time slots for you. There are enough time slots for everyone in the class. The exam is closed book/closed notes/closed internet, etc.... The final exam will be held during finals week.

Course Policies

1. Because this is an online course, you may never meet me or your other classmates face-to-face after the orientation. That means that written communication must be clear in all circumstances.
2. While completing assignments, chatting, etc. within the online environment (within this class), be professional. In other words, quality matters. Write clearly with correct spelling, punctuation, and grammar. Actively prepare by reading the assigned materials. Share your thoughts (i. e. ask and answer questions). Have course materials with you when you are online (you can use materials during quizzes, etc). Please refrain from anything that is not class-related while "in" this course. Unless you are quoting someone else directly, language should be "G-rated."
3. END DATES: The "end dates" listed for sections are the LAST chance to submit them. Please submit your work early. I DO NOT accept late assignments.
4. If you have a question or concern, e-mail me. Please include the course number in the subject of the e-mail ("HHPK 350") and the topic of the message. I will respond promptly during the week. If you want me to take a look at assignments before you submit them, you may ask me to do so through e-mail. I will NOT grade assignments ahead of time, but I will give you general feedback about how your work looks.
5. Use the following e-mail address for me: sandy.kimbrough@tamuc.edu
6. You MUST check your e-mail regularly in case I need to communicate with you. I will not e-mail you junk, and I request that you do the same for me and your classmates.
7. If you have a question or concern, communicate with me!

PLAGIARISM

- The handouts used in this course are copyrighted. By "handouts," I mean all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless I expressly grant permission.
- As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it is as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated.
- If you have any questions regarding plagiarism, please consult me. If you plagiarize in my class, you will automatically receive a grade of "F" and disciplinary action will be sought.
- Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.
- Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).
- Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.
- In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty

13.99.99.R0.10 Graduate Student Academic Dishonesty

Agenda/Schedule

ALWAYS look in D2L for links to other documents, videos, etc, that I may assign.

Section	Lecture titles	Accompanying textbook information and articles/documents to read	
1	Intro to class		
1	Intro to motor learning, including Massed/Distributed Practice	Chapter 1, Chapter 8, and pages 203-208 (focus on stages of learning) and pages 233-235 (massed/distributed)	
1	Individual Differences and Motor Abilities	Chapter 7 and "Magill ML is meaningful article" (in doc sharing)	
1	Motor development		
1	Sensory contributions	Chapter 4	
1	Intro to Blocked/Random	Chapter 10 (focus on the section on Blocked/Random practice); other assigned reading (see D2L).	Section 1 due: 9/16
2	Information Processing	Chapter 2-3 (see topic intro pages and assignments for additional readings)	
2	Attention	Chapter 2-3 continued...	

2	Memory	Chapter 2-3 continued....	
2	Arousal	Chapter 3 continued...	
2	Blocked/Random continued...		Section 2 due: 10/15
3	Movement Production	Chapter 5 (see topic intro pages and assignments for additional readings)	
3	Motor Programs	Chapter 5 continued.....	
3	Principles of Motor Control and Movement Accuracy	Chapter 6	
3	Skill Acquisition, Retention, and Transfer	Chapter 9	
3	Practice Considerations	Chapter 9 continued..... (see topic intro pages and assignments for additional readings)	
3	Blocked/random continued.....	Chapter 10 (focus on the section on Blocked/Random practice); other assigned reading (see D2L).	Section 3 due: 11/11
4	Organizing and Scheduling Practice	Chapter 10	
4	Augmented Feedback	Chapter 11 (see topic intro pages and assignments for additional readings)	
4	Blocked/random continued.....	Chapter 10 (focus on the section on Blocked/Random practice); other assigned reading (see D2L).	Section 4 due: 12/8

FINAL EXAMS during finals week (December 9-13)

Summary of Assignments for Section 1 (point total=100)

Topic	Quiz Pts	Discussion Pts	Assignment Pts
Intro to class	10	5	
Intro to motor learning and MASSED/DISTRIBUTED practice	10		5
Individual Differences and Motor Abilities	10		10
Motor development	10		10
Sensory contributions	10	5	5
Blocked/random	10		
TOTAL PTS	60	10	30

Summary of Assignments for Section 2 (point total=100)

Topic	Quiz Pts	Discussion Pts	Assignment Pts
Information Processing	10		10
Attention	10	10	
Memory	10		10
Arousal	10		10
Blocked/random	10		10
TOTAL PTS	50	10	40

Summary of Assignments for Section 3 (point total=100)

Topic	Quiz Pts	Discussion Pts	Assignment Pts
Movement Production	10	5	
Motor Programs	10		10
Principles of Motor Control and Movement Accuracy	10		10
Skill Acquisition, Retention, and Transfer	5	5	
Practice Considerations	5		10
Blocked/random	10	5	5
TOTAL PTS	50	15	35

Summary of Assignments for Section 4 (point total=100)

Topic	Quiz Pts	Discussion Pts	Assignment Pts
Organizing and Scheduling Practice	10		10
Augmented Feedback	10		10
Blocked/random	10		50
TOTAL PTS	30		70

CRUCIAL INFORMATION:

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](#).

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: <https://www.britannica.com/topic/netiquette>

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the student catalog.

Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce
Phone (903) 886-5150 or (903) 886-5835

Velma K. Waters Library Rm 162
Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: <https://www.tamuc.edu/student-disability-services/>

Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Mental Health and Well-Being

The university aims to provide students with essential knowledge and tools to understand and support mental health. As part of our commitment to your well-being, we offer access to Telus Health, a service available 24/7/365 via chat, phone, or webinar. Scan the QR code to download the app and explore the resources available to you for guidance and support whenever you need it.



Campus Concealed Carry

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to (<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.