HHPK 350 – MOTOR LEARNING AND CONTROL

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Textbook
Motor Learning and Performance, by
by Richard A. Schmidt, Craig A. Wrisberg
Fourth edition

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 affect 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.

Evaluation

Section 1	100 points
Section 2	100 points
Section 3	100 points
Section 4	100 points
Oral Final Exam	100 points

(TOTAL OF 500 points possible)

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. For example, section 3 may break down in this way:

Quizzes	4@ 10 pts each	40
Discussions	1@15 pts	15
Assignments	3@15 points each	45

So if your grades were as follows:

Quiz 1	8
Quiz 2	7
Quiz 3	10
Quiz 4	10
Discussion	13
Assignment 1	13
Assignment 2	13
Assignment 3	15
	89=TOTAL for Section 3

Submitting assignments/using the drop box

All assignments will have a "drop box." When you drop an assignment for me to grade, it MUST be a WORD document (or EXCEL document if it is a spreadsheet), and it must be titled appropriately. For example, if one of the assignments is called "leadership assignment" and your last name is Collins, the name of the document you drop must be "Collins leadership.doc" Also, at the top of the first page of every assignment, you must include your name and the name of the assignment. If it is a spreadsheet, gridlines should be showing and a header should include your name and the name of the assignment. You should print-preview your document so that when I print it, it is lined up correctly and does not have columns, rows, etc. hanging out off the edge of a sheet. If you do not name and label the document correctly, you will lose 20% of the value of that assignment.

Feedback on assignments

For most of your assignments, I will 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 your inbox so you will have written feedback from me. USE this information to improve your work on future assignments.

Final Examination……oral

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 time from a list of provided times. I will call you on the phone and ask you questions that cover the course material. You will be at the phone at your selected time. Questions may cover any of the course content. No two oral exams will be identical.

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 e-college 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!

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 quite 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 get the grade you earn!!!!

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.

Agenda/Schedule

Section	Lecture titles	Accompanying textbook information and articles/documents to read	
1	Intro to class		
1	Intro to motor learning	Chapter 1 and pages 200-203	
1	Individual Differences and Motor Abilities	Chapter 6 and "Magill ML is meaningful article" (in doc sharing)	
1	Motor development		
1	Sensory contributions	Chapter 3	Section 1 due: September 23
2	Information Processing	Chapter 2 (see topic intro pages and assignments for additional readings)	
2	Attention	Chapter 2 continued…	
2	Memory	Chapter 2 continued….	
2	Arousal	Chapter 2 continued…	Section 2 due: October 14
3	Movement Production	Chapter 4 (see topic intro pages and assignments for additional readings)	
3	Motor Programs	Chapter 4 continued…..	
3	Principles of Motor Control and Movement Accuracy	Chapter 5	
3	Preparing for the Learning Experience	Chapter 7	Section 3 due: November 9
4	Practice Considerations	Chapter 8 (see topic intro pages and assignments for additional readings)	
4	Practice Scheduling	Chapter 9	
4	Feedback	Chapter 10 (see topic intro pages and assignments for additional readings)	
4	Experimental Design	(see topic intro pages and assignments for additional readings)	Section 4 due: November 30

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

Topic	Quiz Pts	Discussion Pts	Assignment Pts
Intro to class	10	10	
Intro to motor learning	10		5
Individual Differences and Motor Abilities	10		10
Motor development	10		10
Sensory contributions	10	10	5
TOTAL PTS	50	20	30

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

Topic	Quiz Pts	Discussion Pts	Assignment Pts
Information Processing	10		10
Attention	10	10	10
Memory	10		10
Arousal	20		10
TOTAL PTS	50	10	40

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

Topic	Quiz Pts	Discussion Pts	Assignment Pts
Movement Production	20	10	
Motor Programs	10		10
Principles of Motor Control and Movement Accuracy	10		10
Preparing for the Learning Experience	20	10	
TOTAL PTS	60	20	20

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

Topic	Quiz Pts	Discussion Pts	Assignment Pts
Practice Considerations	10	5	5
Practice Scheduling	10		5
Feedback	5		5
Experimental Design	10	5	40
TOTAL PTS	35	10	55

Statement on Student Behavior

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment (see Student's Guide Handbook). I have zero tolerance for disrespect for the learning environment or other human beings, present or not.

ADA statement

Students requesting accommodations for disabilities must go through the Academic Support Committee. For more information, please contact the Director of Disability Resources and Services, Gee Library, (903) 886-5835.