Motor Learning and Performance

**Lecture Instructor:** Matthew W. Miller, Ph. D.

**Email:** mwm0024@auburn.edu

**Office Hours:** Tuesday 9:00 – 11:00 AM

**Office Location**:Kinesiology Building 164

**Lecture Meeting:** Monday, Wednesday, and Friday 12:00 – 12:50 PM, SAC 257

**Lab Meeting:** See Canvas for the lab syllabus for your lab section

**Course Number:** KINE 3650-001

**Credit Hours:** 4.000

**Prerequisites:** None

**Texts/Resources:** e-Book (see information on Canvas)

**Course Description:** Understanding of the basic psychological processes in learning and control of skillful human movement.

**Learning Outcomes:** Students will be able understand to the psychological basis of motor learning and performance as well as apply this knowledge to facilitate learning and performance.

**Course Content (*DATES ARE SUBJECT TO CHANGE*)**

* 08/21 – 25
  + Topics
    - Introduction
  + Reading
    - Chapter 1
  + Assessments
    - None
* 08/28 – 09/01
  + Topics
    - Introduction (continued)
    - Processing Information and Making Decisions
  + Reading
    - Chapter 2
  + Assessments
    - 08/30: Chapter 1 Quiz
* 09/04 – 08 (no class 09/04)
  + Topics
    - Processing Information and Making Decisions (continued)
  + Reading
    - None
  + Assessments
    - None
* 09/11 – 15
  + Topics
    - Processing Information and Making Decisions (continued)
  + Reading
    - None
  + Assessments
    - None
* 09/18 – 22
  + Topics
    - Attention and Performance
    - Sensory Contributions to Skilled Performance
  + Reading
    - Chapter 3
    - Chapter 4
  + Assessments
    - 09/18: Chapter 2 Quiz
    - 09/22: Chapter 3 Quiz
* 09/25 – 29
  + Topics
    - Sensory Contributions to Skilled Performance (continued)
  + Readings
    - Chapter 5
  + Assessments
    - 09/29: Chapter 4 Quiz
* 10/02 – 06
  + Topics
    - Motor Programs (continued)
  + Readings
    - None
  + Assessments
    - None
* 10/09 – 13 (no class 10/13)
  + Topics
    - Midterm Review
  + Readings
    - None
  + Assessments
    - 10/09: Chapter 5 Quiz
    - 10/11: Midterm
* 10/16 – 20
  + Topics
    - Principles of Speed, Accuracy, and Coordination
  + Readings
    - Chapter 6
  + Assessments
    - None
* 10/23 – 27
  + Topics
    - Individual Differences
  + Readings
    - Chapter 7
  + Assessments
    - 10/23: Chapter 6 Quiz
    - 10/27: Chapter 7 Quiz
* 10/30 – 11/03
  + Topics
    - Introduction to Motor Learning
  + Readings
    - Chapter 8
  + Assessments
    - 11/03: Chapter 8 Quiz
* 11/06 – 10 (no class 11/10)
  + Topics
    - Skill Acquisition, Retention, and Transfer
  + Readings
    - Chapter 9
  + Assessments
    - None
* 11/13 – 17
  + Topics
    - Skill Acquisition, Retention, and Transfer (continued)
    - Organizing and Scheduling Practice
  + Readings
    - Chapter 10
  + Assessments
    - 11/15: Chapter 9 Quiz
* 11/20 – 24 (no class)
* 11/27 – 12/01
  + Topics
    - Organizing and Scheduling Practice (continued)
    - Augmented Feedback
  + Readings
    - Chapter 11
  + Assessments
    - 12/01: Chapter 10 Quiz
* 12/04 – 08
  + Topics
    - Augmented Feedback (continued)
    - Final Exam Review
  + Readings
    - None
  + Assessments
    - 12/08: Chapter 11 Quiz
    - 12/08: Extra Credit due by 12 PM
* 12/11 – 15
  + 12/12 at 12 PM: Final Exam

**Assessments:**

Quizzes

There will be 11 quizzes, all of which will occur during the first 15 min of class. The quizzes will be weighted based on the number of questions they contain (i.e., if Quiz 1 contains 10 questions, and Quiz 2 contains 15 questions, then they will be worth 10 and 15 points, respectively). If you are late/absent from class the day on which a quiz is occurring for ‘unexcused reasons,’ then you may not have the opportunity to complete the quiz and, thus, could receive a grade of zero. If you have an excused lateness or absence, then you will be able to take a make-up quiz.

Exams

There will a Midterm and Final exam. The exams will be weighted based on the number of questions they contain (i.e., if the Midterm contains 50 questions, and the Final contains 55 questions, then they will be worth 50 and 55 points, respectively). The Final exam will ask questions related to material covered after the Midterm. If you are absent from class the day on which an exam is occurring for ‘unexcused reasons,’ then you may not have the opportunity to complete the exam and, thus, could receive a grade of zero. If you have an excused lateness or absence, then you will be able to take a make-up exam.

Lab

Information about labs will be provided by the lab instructor at the first lab meeting.

**Grading:**

Assignments contribute as follows to final class grade:

Quizzes 35%

Exams 40%

Lab Assignments 25%

Extra Credit:

You can earn up to 5 pts of extra credit to be applied to your Final Exam by participating as a participant in a research study *beyond* the participation required for the lab portion of this course. Many studies are listed on SONA: <https://auburn-education.sona-systems.com/Default.aspx?ReturnUrl=%2f>. As an alternative, you may complete the following assignment (again, *beyond* what is required for the lab portion of this course) for up to 5 pts to be applied to your Final Exam (the number of pts you earn will be based on how well you complete the assignment):

Write a brief research paper that describes the research methods of a primary research article published in a peer-reviewed, scientific journal (ask me if you are unsure about whether an article is ‘primary’ and/or whether a journal is ‘peer-reviewed’ and ‘scientific’). In your paper, you must clearly explain the following: (1) What was the goal of the research? (2) Who were the participants and how were they selected? (3) What were the experimental methods (make sure that you focus on the participants’ experience with the methods (e.g., How long were participants in the lab? Were any of the procedures invasive? Did any of the procedures place the participants at risk?) (4) Do you believe the benefits of the study (the information gained from the study) outweighed the costs to the participants (the time and effort put forth by participants as well as the risk they took by participating); (5) Would you have participated in this study? Why or why not?

Percentages will be associated with the following letter grades:

A: 90.0% ≤

B: 80.0% ≤

C: 70.0% ≤

D: 60.0% ≤

F: 60.0% >

**Class Policies:**

Attendance: Although attendance is not required, students are expected to attend all classes, and will be held responsible for any content covered in the event of an absence.

Excused Absences: Students are granted excused absences from class for the following reasons: illness of the student or serious illness of a member of the student’s immediate family, the death of a member of the student’s immediate family, trips for student organizations sponsored by an academic unit, trips for university classes, trips for participation in intercollegiate athletic events, subpoena for a court appearance, and religious holidays. Students who wish to have an excused absence from class for any other reason must contact Dr. Miller in advance of the absence to request permission. Dr. Miller will weigh the merits of the request and render a decision. When feasible, the student must notify Dr. Miller prior to the occurrence of any excused absences, but in no case shall such notification occur more than one week after the absence. Appropriate documentation for all excused absences is required. Please see the *Tiger Cub* for more information on excused absences.

Make-Up Policy: Students are only guaranteed the opportunity to make up assignments due to excused absences (i.e., students are not guaranteed the opportunity to make up assignments due to unexcused absences). Arrangement to make up assignments due to properly authorized excused absences must be initiated by the student within one week of the end of the period of the excused absences(s). Except in unusual circumstances, such as the continued absence of the student or the advent of university holidays, a make-up assignment will take place within two weeks of the date that the student initiates arrangements for it.

Academic Honesty Policy: All portions of the Auburn University student academic honesty code (Title XII) found in the *Tiger Cub* will apply to KINE 3650. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee.

Disability Accommodations: Students who need special accommodations in class, as provided by the Americans with Disabilities Act, should arrange for a confidential meeting with Dr. Miller during office hours in the first week of classes (or as soon as possible if accommodations are needed immediately). The student must bring a copy of their Accommodations Letter and an Instructor Verification Form to the meeting. If the student does not have these forms, they should make an appointment with the Program for Students with Disabilities, 1288 Haley Center, 844-2096 (V/TT).

Course Contingency: If normal class is disrupted due to illness, emergency, or crisis situation, the syllabus and other course plans and assignments may be modified to allow completion of the course.

Professionalism: As faculty, staff, and students interact in professional settings, we are expected to demonstrate professional behaviors as defined in the College’s conceptual framework. These professional commitments or dispositions are listed below:

* Engage in responsible and ethical professional practices
* Contribute to collaborative learning communities
* Demonstrate a commitment to diversity
* Model and nurture intellectual vitality