Auburn University - Spring 2022

School of Kinesiology

KINE 3651 SYLLABUS

# Course Information:

**Course number/section:** KINE 3651-D01

**Course name:** Motor Learning and Performance Lab

**Credit hours:** 1.00

**Course modality:** Online asynchronous

# Course Description:

Lab experience will allow students to gain first-hand experience with modern experimental methods, data collection, and basic analysis tools in motor learning research, and develop an understanding of the experience of human research participants in kinesiology research.

# Course Objectives:

* Identify key elements in research methods, such as the dependent, independent, and confounding variables, experimental and control groups, and research question.
* Critically evaluate and understand different types of validity and reliability of scientific experiments in kinesiology.
* Calculate and interpret the meaning of different types of errors and measures used in motor learning research and assessments.
* Experience the effects of affecting the stages of information processing in response time through changes in the context and task.
* Realize the importance of adjusting the task to be performed to one’s research question.
* Be aware of the use of electroencephalography and its variables in motor learning and performance research and technique.
* Explore the effects of contextual interference and practice variability in performance and learning, and design proper practice sessions with high and low contextual interference and practice variability for practical settings,
* Understand the effects of different types of feedback in learning and performance of different types of tasks and for learners with distinct levels of expertise.

# Lab Instructor:

**Name:** Juliana O. Parma (she/her)

**Department affiliation:** School of Kinesiology

**Email:** jzo0034@auburn.edu (Give me at least 24h -business days- to answer)

**Office Hours:** Tuesdays 11:00 a.m. – 1:00 p.m. (or by appointment)

**Office Location:** KINE 140 (School of Kinesiology, 301 Wire Rd., Auburn/AL)

# Required Material:

A laptop or computer with Microsoft Word and Excel, able to run videos (class recordings posted for each module) and to install and run the MotorLab. The MotorLab app will be acquired when the student purchases the course material through the AU bookstore.

# Copyright/ Intellectual Property of Course Material:

The MotorLab app license number shall not be shared and is of exclusive use of the student who purchased the license. PowerPoints, recordings, and files posted by the instructor or submitted by students shall not be shared, sold, posted on the internet, or used by other means unrelated to this course.

# Course Schedule:

***Opens – Due by: Module***

*01/12 – 01/30*: Lab 1 - Introduction to lab, terms, and experimental methods

*01/30 – 02/16*: Lab 2 - Understanding accuracy and precision (consistency)

*02/16 – 03/06*: Lab 3 - Information processing

*03/06 – 03/27*: Lab 4 - Electroencephalography (EEG)

*03/27 – 04/13*: Lab 5 - Practice scheduling

*04/13 – 04/29*: Lab 6 - Providing feedback

# Grading Assessment:

**Lab assignments:** Fifty percent (50%) of your final grade in the lab is based on the completion of six lab assignments. These assignments are worksheets that must be completed in each module, typed, and submitted by the due date on Canvas. The content of the individual lab assignments will vary depending on the topic being covered in the lab. The material (class recordings, PowerPoints, files) and experiences in this class are important, and the assignments shall be based on the content taught in the current and previous modules, as well as in your OWN results from the motor tasks completed on the app. Therefore, make sure you fully watch the recordings provided in each module and perform the MotorLab task(s) required prior to completing the assignment. The assignments must be submitted anytime between 12 a.m. of the opening date of the given module and 11:59 p.m. of its due date. See the course schedule above for a detailed description of the topics, availability, and due dates of each module. Any other materials that might need to be submitted for a particular lab will be indicated by the instructor on Canvas. Each lab assignment will be worth 10 points.

**Experience of human research participants:** This assignment constitutes the remaining 50% of your final lab grade, and is due by 04/29 at 11:59 p.m. The only way that research in motor learning and performance moves forward is by the voluntary participation of human research participants. Participants are key stakeholders in the research process who sacrificed their time and, in some cases, put their health/safety at varying degrees of risk to advance scientific knowledge. As such, a key part of this lab is to give students a deeper appreciation of the value and experience of human research participants. For our lab, this understanding of the human research experience can be gained in two ways: **(1) active participation in research** and/or **(2) reading about published experiments and writing papers explaining the experience of participants in those studies.** Each research participation is worth a number of credits, and each paper is worth up to 2 credits. **You must accumulate 6 credits**. You can earn credits by (1) participating in research **AND/OR** (2) by writing research papers (see details below). Your grade will be based on how many credits you complete (e.g., if you complete 3 credits, then you will receive half of the points in this assignment).

1. **Participation in research**
   1. You should have received an email from the College of Education’s SONA system, which coordinates human subjects research. PLEASE MAKE SURE THAT YOU ARE ON THE COLLEGE OF EDUCATION’S SONA SYSTEM (The Department of Psychology also has a separate SONA system.) The email contained a temporary password, which you can use to log on to SONA: <https://auburn-education.sona-systems.com/Default.aspx?ReturnUrl=%2f> . If you cannot locate this email, please visit the SONA website (see link above) and request a new password. If you are continuing to have difficulty logging on to SONA, please contact the SONA administrator at [sona@auburn.edu](mailto:sona@auburn.edu) .
   2. Once logged on to SONA, you can sign up for studies worth varying amounts of credit. MAKE SURE THEY ARE OFFERING CREDITS, not money only.
   3. There are also studies that are being conducted that are not posted on SONA. You may complete these studies. If you complete one of these studies, please have the experimenter indicate your participation on the signature sheet at the end of this syllabus. Each half-hour of participation is equal to 1 credit.
   4. **If a study is posted on SONA, you must register for it through SONA. That is, you *cannot* email the researcher and have them complete the signature sheet at the end of the syllabus.**
   5. You cannot use research participation for more than one course. That is, you cannot participate in research and apply the credit to this course and another course. Make certain you choose to assign the SONA credits to this course (KINE 3651).
   6. **All of your participation credits must come from laboratory-based studies (as opposed to online surveys).**
   7. **If you get your credits through the SONA system, SONA will submit a report to me by the end of the term with all your credits assigned to this course. Therefore, you do not need to submit any further proof or document. However, if you used the signature sheet, you need to scan and submit it on Canvas.**
2. **Research paper**

Write a research paper that describes the research methods of a primary research article (ask your lab instructor if you are unsure whether an article is ‘primary’) published in one of the following journals: [*Human Movement Science*](https://www.journals.elsevier.com/human-movement-science/); [*Journal of Experimental Psychology: Human Perception & Performance*](http://www.apa.org/pubs/journals/xhp/); [*Journal of Motor Behavior*](http://www.tandfonline.com/loi/vjmb20); [*Journal of Sport and Exercise Psychology*](http://journals.humankinetics.com/journal/jsep); [*Psychology of Sport and Exercise*](https://www.journals.elsevier.com/psychology-of-sport-and-exercise/); [*Sport, Exercise, and Performance Psychology*](http://www.apa.org/pubs/journals/spy/) (see the Student Resources section below). 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).** Each of the four requirements in the paper is worth 0.5 credits. If you successfully meet all four requirements, then you will earn 2 credits. Your assignment must by typed and submitted on Canvas anytime between the beginning of the course and the due date.

**Use this template example to create your paper:**

1- Introduction (your topic of study, why did you choose your topic, the paper(s) you selected and the goal they had - what they wanted to investigate)

2- Methodology (participants, exclusion criteria, tasks, questionnaires, number of days, time in the lab, risks taken by the participants - just try to pretend you are telling me a story about the experiment, and be specific about the procedures, etc.)

3- Results (explain to me the results they found)

4- Conclusion (all the last three topics in our syllabus - if it was worthwhile researching the topic, if you would like to participate in this type of experiment, and the conclusion about your paper related to the topic and motor learning).

5 - References (study used to create your Research Paper) – APA formatting style.

# Make-up Policy

It is vital to keep up with the information throughout the semester. **There will be no make-ups** without a valid university approved excuse, as outlined in the Student Policy [eHandbook](http://www.auburn.edu/studentpolicies) [(http://www.auburn.edu/student\_info/student\_policies/](file:///C:\Users\brocksj\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\8BRIC6BA\(http:\www.auburn.edu\student_info\student_policies\)). The due date and time for all assignments are clearly listed here and on Canvas. **It is the students’ responsibility to adhere to these requirements!**

# Final Grading Scale:

*90 – 100* = A (Exceed expectations)  
*80 – 89* = B (Better than average)  
*70 – 79* = C (average)  
*60 – 69* = D (below average, does not meet minimum Alabama state standards)  
*0 – 59* = F (unacceptable)

**NOTE:** Only final grades with .5 or above will be rounded up. Therefore, an 87.5 will become an 88, while an 87.44 will become an 87.

# Contingency Policy:

If normal class and lab activities are disrupted due to illness, emergency, or crisis situation (such as an H1N1 flu outbreak or COVID-19), the syllabus and other course plans and assignments may be modified to allow completion of the course. If this occurs, an addendum to your syllabus and/or course assignments will replace the original materials. In case I am unable to instruct due to illness, Mariane Bacelar (mzf0029@auburn.edu) will be the back-up instructor for this course, and the classes will still be delivered asynchronously online.

# Honesty Code:

All assignments, quizzes, and exams are to be completed ALONE. However, students are permitted to use notes and textbook to complete assignments. Copying answers from the internet is forbidden. All portions of the Auburn University student academic honesty code (Title XII) found in the Auburn University Student Policy [eHandbook](http://www.auburn.edu/studentpolicies) ([www.auburn.edu/studentpolicies](file:///C:\Users\brocksj\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\8BRIC6BA\www.auburn.edu\studentpolicies)) will apply to this class. 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. If you have ANY concerns relating to the academic integrity of your work, please ask. It is much better to be safe than sorry.

# Accommodations:

Students who need accommodations are asked to electronically submit their approved accommodations through AU Access and to arrange a meeting during office hours the first week of classes, or as soon as possible if accommodations are needed immediately. If you have a conflict with my office hours, an alternate time can be arranged. To set up this meeting, please contact me by e-mail. If you have not established accommodations through the Office of Accessibility, but need accommodations, make an appointment with the Office of Accessibility, 1228 Haley Center, 844-2096 (<https://accessibility.auburn.edu/>).

Please note that accommodations are not retroactive. Accommodations begin after: (1) a meeting with the Office of Accessibility to determine appropriate accommodations; and (2) a meeting with the Instructor arranged by the student.

# Professionalism:

When faculty, staff, and students interact in professional settings, they are expected to demonstrate professional behaviors as defined in the College of Education’s conceptual framework. These professional commitments or dispositions include but are not limited to:

•Engage in responsible and ethical professional practices

•Contribute to collaborative learning communities

•Demonstrate a commitment to diversity

•Model and nurture intellectual vitality

It is your responsibility to be professional at all times. Be professional on how your write your assignments and your emails. Please include a salutation and sign all e-mails, just as you would a letter.Do not use texting abbreviations in assignments or e-mails.

# Distance Learning Statement:

Since this course will take place online, the instructor will be available by way of email and appointment for any questions, concerns, explanations, or discussions. If clarification is needed for any assignment, students can discuss with the instructor by email or appointment. Students are encouraged to ask questions and seek extra help on a regular basis. Please do not wait until the day before an exam or assignment is due.

# Mental Health:

As someone who truly cares about your well-being and personal success, I encourage you to ask for help when you notice that academic and non-academic problems are affecting your performance or mental health. To receive professional assistance, please contact someone at Auburn Cares. For more information, visit their website at <http://aucares.auburn.edu/>. Also, if there is any additional support you need from me, do not hesitate to ask.

# Student Resources:

Through the Auburn University Libraries (<https://www.lib.auburn.edu/>) it is possible to gain free access to most Scientific Journals you might need for this class. If you are struggling to find or access a paper of your interest, you are encouraged to talk to a librarian at the “Chat with us” section of the aforementioned website or to contact the librarian of the College of Education, Mr. Todd Shipman ([tas0011@auburn.edu](mailto:tas0011@auburn.edu)). It is unlikely that you need to pay for the article of your choice and, if you do, I encourage you to look for the free ones instead.

If you feel writing is an area that you are deficient, you are encouraged to contact the AU Office of University Writing at <http://wp.auburn.edu/writing> and seek for help.

**\*\*\* The above content, schedule, and procedures in this course are subject to amendments at the discretion of the instructor. Possible amendments will be communicated to students accordingly. \*\*\***

# SIGNATURE SHEET FOR STUDIES NOT ON SONA

I certify that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ completed \_\_\_ hours and \_\_\_ minutes of research as a participant on the following date \_\_/\_\_/\_\_\_\_.

Signed\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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