

KIN 479: Motor Control Syllabus

Sections 19617 and 19821

1 Instructor Information

Dr. Furtado received a B.A. in Physical Education from the Federal University of Parana, Curitiba, PR - Brazil. He earned his M.S. and Ph.D. degrees in Motor Behavior from the University of Pittsburgh, PA. Dr. Furtado's research focuses on:

1. Validation of observational models in psychomotor assessment instruments
2. The relationship between motor skill competence, perceived motor competence, physical activity levels, and body composition
3. The application of artificial intelligence to enhance movement assessment

Instructor: Ovande Furtado Jr, Ph.D.

Office: RE 289

Email: Use Canvas Inbox for communication

Phone: 818-677-5968

Office Hours:

Tuesday: 9:00 AM – 12:00 PM

Also available by appointment: [Schedule Appointment](#)

Meeting Times/Location:

MoWe 2:30–3:45 pm (19617) - ED1126

MoWe 1:00–2:15 pm (19821) - ED3113

2 Course Description

Welcome to Motor Control, a course that delves deep into foundational and applied aspects of human motor control. This is done through an integrated approach to the nature of human movement across the lifespan, with special emphasis on examining the perception-action loop or the links between sensation, cognition, and movement. In this course, students will first gain foundational knowledge in motor control, including sensory and motor physiology and motor control theories. Then, they will apply this knowledge to better understand motor control of various movements. Additionally, they will gain knowledge on the current state of motor control through reporting on recent applied research in a relevant area. The material from this course can be applied to future careers involving rehabilitation, clinical practice, sport, and research.

- Foundational knowledge in motor control, sensory and motor physiology, and related theories.
- Applications to rehabilitation, clinical practice, sport, and research.
- Engagement with recent applied research in motor control.

3 Required Textbook

Magill and Anderson (2017)

! Important

The required course text is the eleventh edition of *Motor Learning and Control: Concepts and Applications* by Richard A. Magill. Reading assignments should be done before starting other course-related tasks for the week. Your reading for the week is posted in the Course Schedule. This course will be delivered through Canvas. All materials, grades, and discussions will be accessed through this site. Therefore, please take the time to familiarize yourself with the course pages during the first week of the course. Also, Microsoft Office is required, as we will discuss material through PowerPoint presentations, and some assignments require Excel.

4 Learning Objectives

1. Each learning objective for this course targets one or more of the Department of Kinesiology's Student Learning Outcomes. The department website provides a complete description of these Outcomes.

By the end of this course, students will be able to:

- Describe different approaches to understanding motor control, including dynamical systems and other, more traditional approaches SLO 1, 4
- Apply foundational knowledge of sensorimotor structure and function to motor control applications SLO 1, 2
- Describe theories that frame and describe motor control SLO 1, 2
- Use articles to establish evidence-based approaches to designing exercises that influence motor control SLO 1, 3, 4
- Understand, interpret, and critique current motor control articles on different topics. SLO 3, 4
- Reflect on how historical concepts can influence the theories of motor control and action SLO 2, 4

5 Course Format and Attendance

This course will be delivered face-to-face on Mondays and Wednesdays at the scheduled times. This course is listed as "Seminar" as opposed to "Lecture or Lab", which refers to a smaller, discussion-based course that emphasizes participation, presentations, and deeper engagement, as opposed to lecture-style teaching.

In addition, this course will follow a flipped classroom model where students are expected to study topics before coming to class. Attendance is essential as participation points are awarded for in-class activities.

5.1 Weekly Structure

- **Weeks 2-8:**
 - **Before class:** Students will study the topics before coming to class - Flipped Classroom Model.
 - **Mondays (5 points):** Students will complete in-class activities on the topic covered that week.
 - **Wednesdays (10 points):**
 - * Part 1: Q&A on the assigned topics followed by a multiple-choice quiz (5 points).
 - * Part 2 (Exit Ticket, 5 pts): Convert three quiz items into short-answer questions, do a 2-minute pair-lite polish with a classmate, then post your three questions plus the concise answers (one short sentence each, recommended) to the Canvas Discussion "Exit Tickets — Week X" by Wednesday (end of class). Before Monday class, read at least one peer's post and leave one constructive comment (feedback) by **Monday before class**.
- **Weeks 10-16 (Presentation Weeks):**
 - **Before class (5 points):** Students will submit five (5) questions on the topics presented on Monday and Wednesday, for a total of 10 questions.
 - **In class (5 points):** After the presentation is over, some students will be chosen to ask one or more questions to the presenters.

! Important

Students are expected to bring their devices (laptops, tablets, smartphones) to class for quizzes and activities. If you need alternative arrangements, please contact the instructor. All course materials will be available through Canvas, organized by weekly modules.

Students start each week with 20 participation points (10 from Monday and 10 from Wednesday). Whether they keep all points depends on their engagement and completion of weekly activities.

6 Communication, Sexual Misconduct Disclosures, and Respectful Environment

Proper communication etiquette is essential for fostering a respectful learning environment. Please:

- Use clear and respectful language in emails and discussion posts.
- Be mindful of diverse perspectives and identities.

Sexual Misconduct Disclosures:

One of your instructor's responsibilities is to help maintain a respectful learning environment. Suppose a student chooses to write, speak, or otherwise disclose about having experienced sexual misconduct/sexual violence, including rape, sexual assault, sexual battery, dating violence, domestic violence, or stalking, and specifies that this violence occurred while they or the perpetrator were a CSUN student. In that case, federal and state laws require that the instructor, as a "responsible employee," notify our campus Title IX coordinator.

CSUN Title IX Coordinator: Barrett Morris (barrett.morris@csun.edu)

Campus Care Advocate: (818) 677-4972

[CSUN Title IX Website](#)

7 E-mail Policy

To ensure efficient and effective communication throughout this course:

1. **Direct Email for Private Matters:** You can contact me via Canvas Inbox for personal concerns, issues related to grading, or matters requiring confidentiality.
2. **Questions on Assignments:** Post them under each week's announcement on Canvas > Announcements.

8 Late Assignment Policy

- **Deduction:** Late assignments submitted without prior approval will incur a 5% penalty per day for up to four days. In-class activities and exams cannot be made up, except in extreme cases. Exceptions for extreme circumstances (e.g., illness, family emergency) are granted if you notify the instructor promptly with proper documentation.
- **After Four Days:** Assignments will no longer be accepted.

i Note

The two lowest quiz grades and the lowest two in-class activity grades will be dropped at the end of the semester.

9 Graduate Student Expectations

Graduate students will complete presentations independently, following specific guidelines.

10 Student Performance Evaluation

- **Group Presentation (20%)**: Presentations on assigned topics will occur between weeks 10-16 (Oct 27-Dec 12).
- **Midterm Exam (30%)**: Taken in class during week 9, covering material from weeks 1-8.
- **Final Project (30%)**: Due during finals week, December 19.
- **Participation (in-class activities) (20%)**: Completion of in-class activities (quizzes, discussions, exit tickets, etc.).

Grading Scale:

Grade	Percentage
A	93%-100%
A-	90%-92.9%
B+	87%-89.9%
B	83%-86.9%
B-	80%-82.9%
C+	77%-79.9%
C	73%-76.9%
C-	70%-72.9%
D+	67%-69.9%
D	63%-66.9%
D-	60%-62.9%
F	Below 60%

11 Requirements

11.1 Group Presentation

Students will be assigned to groups and are expected to deliver presentations on designated topics starting after the midterm. Each group will present their assigned topic during the weeks following the midterm exam. To learn more about the expectations and schedule, please follow this [link](#).

11.2 Midterm Exam

The midterm exam will be administered in class during week 9 and will cover material from weeks 1 through 8. It will consist of 50-60 multiple-choice questions designed to assess your understanding of the course content up to that point.

 Important

You must bring a Scantron (Form No. 882-E) form to the midterm exam and a No. 2 pencil.

11.3 Final Project

The final project will be due during finals week, December 19. For more details about the final project, click [here](#).

11.4 Participation (in-class activities)

Students are expected to actively participate in all in-class activities, including quizzes, discussions, and exit tickets. Participation will be assessed throughout the semester and will contribute to the overall course grade.

12 Accessibility and Support

Students with disabilities are encouraged to request accommodations early through the Office of Students with Disabilities Resources. The contact number is (818) 677-2684.

13 Academic Integrity

All students are expected to adhere to CSUN’s policies on academic honesty. Violations may result in a failing grade and further disciplinary actions.

14 Course Schedule¹

The following sequence is a tentative outline of the topics and assignments for this semester. In most instances, the sequence of the course schedule is followed; however, due to extenuating circumstances, it is sometimes necessary for the instructor to make changes in either the schedule or assignments.

Table 2: Calendar

Week	Date Range	Topic	Assignments
 1	Aug 25-31	Course Introduction	Exit Ticket
 2	Sep 1-7	Neuromotor Basis for Motor Control (ch4)	Quiz 1
 3	Sep 8-14	Motor Control Theories (ch5)	Quiz 2
 4	Sep 15-21	Sensory Components of Motor Control (ch6, Objectives 1-4)	Quiz 3
 5	Sep 22-28	Sensory Components of Motor Control (ch6, Objectives 5-8)	Quiz 4
 6	Sep 29-Oct 5	Performance and Motor Control (ch7, Objectives 1-4)	Quiz 5
 7	Oct 6-12	Performance and Motor Control (ch7, Objectives 5-8) - cont.	Quiz 6
 8	Oct 13-19	Action Preparation (ch8)	Quiz 7
 9	Oct 20-26	Midterm Exam	—
 10	Oct 27-Nov 2	Student Presentations (Groups 1 and 2)	Group Presentations
 11	Nov 3-9	Student Presentations (Groups 3 and 4)	Group Presentations
 12	Nov 10-16	Student Presentations (Groups 5 and 6)	Group Presentations
 13	Nov 17-23	Student Presentations (Groups 7 and 8)	Group Presentations
 14	Nov 24-30	Student Presentations (Groups 9 and 10)	Group Presentations
 15	Dec 1-7	Student Presentations (Groups 11 and 12)	Group Presentations
 16	Dec 8-12	Student Presentations (Groups 13 and 14)	Group Presentations
 Finals	Dec 13-19	Project is due	Project is due Dec 19

14.1 References

Magill, Richard, and David I Anderson. 2017. *Motor learning and control: concepts and applications*. 11th edition. New York, NY: McGraw-Hill Education.

¹This schedule is subject to change.