

# KIN 479: Motor Control Syllabus

Sections 19236, 18404, and 20917

## Instructor Information

**Instructor:** Ovande Furtado Jr, Ph.D.

**Office:** RE 289

**Email:** Use Canvas Inbox for communication

**Phone:** 818-677-5968

### Office Hours:

Tuesdays & Thursdays: 9:00 AM – 12:00 PM

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

## 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.

**Required Textbook:**

Rosenbaum, D. A. *Human Motor Control* (2nd Edition).

**! Important**

The required course text is the second edition of *Human Motor Control* by David A. Rosenbaum. Reading assignments should be done before starting other course-related tasks for the week. Your reading for the week is posted below. 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.

## Learning Objectives

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

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

## Course Format and Attendance

This course will be delivered entirely online. All materials for a given week will be posted by 5:00 PM each Monday, and each set of posted materials is intended to cover an entire week. Each week's materials will have an associated page on the Canvas site. Students are encouraged to take advantage of the asynchronous online format and learn and digest the materials at their own pace. Any assignments given for a week will be due the Monday after

they are assigned. Therefore, students should review all material for the week, complete any activities, quizzes, and projects, and submit them before the deadline. Lectures will be posted weekly to accompany the reading material.

No attendance will be taken for this course, and no participation points will be given. Due to its mostly asynchronous nature, students can learn at their own pace and demonstrate their knowledge of the material through the quality of their assignments.

## **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](mailto:barrett.morris@csun.edu))

**Campus Care Advocate:** (818) 677-4972

[CSUN Title IX Website](#)

## **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.

## Late Assignment Policy

- **Deduction:** Assignments submitted late without prior arrangements will incur a 5% deduction per day for up to four days.
- **After Four Days:** Assignments will no longer be accepted.

## Graduate Student Expectations

Graduate students will complete presentations independently, following specific guidelines.

## Student Performance Evaluation

- **Quizzes (25%):** Weekly, timed quizzes administered on Canvas. The lowest quiz score dropped.
- **Presentation (15%):** Group presentations on movement disorders. Due April 14 by 5:00 PM.
- **Midterm Exam (30%):** Assigned March 10, due March 17.
- **Final Exam (30%):** Assigned May 5, due May 13.

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%

## 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.

## 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.

## Course Schedule<sup>1</sup>

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.

Week	Dates	Topics	Readings/Tasks	Assignments Due (@ 5pm)
1	Jan 20-27	Intro Course and Syllabus	Syllabus	Syllabus Quiz
2	Jan 27-Feb 3	Introduction to Motor Control	Ch1 (1-8 <sup>2</sup> ); Ch2 (11-38)	Wk01-Quiz
3	Feb 3-10	Sensory Physiology	Ch3 (43-45; 50-55)	Wk03-Quiz + <a href="#">Topics</a>
4	Feb 10-17	Vision	Ch6 (174-207)	Wk04-Quiz
5	Feb 17-24	Motor Physiology	Ch3 (46-49; 55-89)	Wk05-Quiz
6	Feb 24-Mar 3	Psychology and Motor Control	Ch4 (94-103; 106-131)	Wk06-Quiz
7	Mar 3-10	Theories of Motor Control	Ch4 (103-106); Ch12 (397-412)	Wk07-Quiz
8	Mar 10-17	Midterm Exam	Content up to Wk7	Midterm Exam Due Mar 17
9	Mar 17-24	Spring Break – No Class	NA	NA
10	Mar 24-31	Locomotion	Ch5 (136-170)	Wk10-Quiz

<sup>1</sup>This schedule is subject to change.

<sup>2</sup>Page numbers in parentheses refer to the textbook's second edition.

Week	Dates	Topics	Readings/Tasks	Assignments Due (@ 5pm)
11	Mar 31-Apr 7	Reaching and Grasping	Ch7 (214-247)	Wk11-Quiz
12	Apr 7-14	Drawing and Writing	Ch8 (254-272)	Wk12-Quiz + <a href="#">Video Recording</a>
13	Apr 14-21	Speaking and Singing	Ch10 (324-358)	Wk13-Quiz + <a href="#">Peer Engagement</a>
14	Apr 21-28	Facial Control	Ch11 (364-376)	Wk14-Quiz
15	Apr 28-May 5	Final Review	Ch12 (379-395)	Wk15-Quiz
16	May 5-13	Final Exam	Cumulative	Final + <a href="#">Peer Eval</a>