

KIN 479-02 #19354 – Motor Control

Fully Online Asynchronous Course

Spring 2024

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| **Instructor Information**:  Ovande Furtado Jr, Ph.D.  Office: RE 289  Email: ovandef@csun.edu  Phone: 818-677-5968 | **Office Hours**:  Tuesdays 8:00 AM – 12:00 PM Also available by appointment <https://bit.ly/drfurtado-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 into the nature of human movement across the life span, 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 theories of motor control. Then they will apply this knowledge to better understand motor control of a variety of 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 learned from this course can be applied to a variety of future careers that involve rehabilitation, clinical practice, sport, and research.

**Required Textbook and Supplemental Materials**

The required course text is the second edition of *Human Motor Control* by David A. Rosenbaum. Reading assignments should be done **first**, prior to 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. Additionally, Microsoft Office is required, as we will be discussing material through PowerPoint presentations and some assignments require Excel.

**Learning Objectives for Motor Control**

Each learning objective for this course targets one or more of the Department of Kinesiology Student Learning Outcomes. A complete description of these Student Learning Outcomes can be found on the department website.

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

1. Describe different approaches to understanding motor control, including dynamical systems and other, more traditional approaches *SLO 1, 4*
2. Apply foundational knowledge of sensorimotor structure and function to motor control applications *SLO 1, 2*
3. Describe theories that frame and describe motor control *SLO 1, 2*
4. Use articles to establish evidence-based approaches to designing exercises that influence motor control *SLO 1, 3, 4*
5. Understand, interpret, and critique current motor control articles on different topics. *SLO 3, 4*
6. 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 for the week, 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 the mostly asynchronous nature of the course, students have the freedom to learn at their own pace and demonstrate their knowledge of the material through the quality of assignments submitted.

**Communication, Sexual Misconduct Disclosures, and Maintenance of a Respectful Learning Environment**

Proper communication etiquette with the instructor and classmates is essential. Students are expected to maintain an appropriate level of respect when communicating with others at all times and can expect to receive the same level of respect from the instructor. Ultimately, everyone in this class can feel free to speak their mind, ask questions, and have intellectual conversations without feeling judged or marginalized. Students should make sure any questions asked through email or on the discussion board are clear, and use appropriate email and discussion board etiquette. Students are welcome to ask questions in person, at the instructor’s office hours or by appointment.

Professional courtesy and consideration for our classroom community are especially important concerning topics dealing with differences in race, color, gender and gender identity/expression, sexual orientation, national origin, religion, disability, and age. In this course, the topic of sex (including sexual misconduct/sexual violence) may emerge either purposefully or inadvertently in readings, videos, class discussions, or other materials. Such topics may be particularly upsetting for some survivors and it is encouraged that all students seek the support they need. *Please be aware of the following policy regarding confidentiality and disclosures of incidents of sexual misconduct/sexual violence*:

One of your instructor’s responsibilities is to help maintain a respectful learning environment. If 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, federal and state laws require that the instructor, as a “responsible employee”, notify our campus Title IX coordinator. The Title IX coordinator will contact the student to inform them of their rights and options as a survivor and connect them with support resources. Know that the student will not be forced to share information and their level of involvement will be their choice.

CSUN’s Title IX coordinator is: Barrett Morris, University Hall, Room 285, (818) 677-2077, [barrett.morris@csun.edu](mailto:barrett.morris@csun.edu)

Alternatively, students can speak confidentially with the Campus Care Advocate at (818) 677-4972.

Please visit the University’s Title IX website at: <http://www.csun.edu/title-ix>.

**Graduate Student Expectations**

For graduate credit, students will be expected to perform their presentations alone instead of in a group. See presentation guidelines for more information.

**Student Performance Evaluation**

**25% - Quizzes—**Quizzes will be administered most weeks online. These will allow students to demonstrate their knowledge of the material learned that week. These will take place on Canvas, and each quiz will have a strict time limit. Students will only have one opportunity to take the quiz and will not be allowed to take a quiz after the deadline passes. If a student encounters any technical difficulties, they should email the instructor immediately with any relevant screenshots. *The lowest quiz score will be dropped at the end of the term*.

**15% - Presentation** – Students will be randomly assigned to a group presenting on a specific movement disorder. Part of the presentation grade is asking other groups questions regarding their presentation. Similarly, presenters will also be graded on their responses to questions asked by classmates. ***Presentations must be ~~emailed to the instructor~~ and uploaded to Canvas by 5:00 PM on Monday, April 15th.***

**30% - Midterm** — Assigned Monday, March 11th @ 5pm, Due Monday, March 25th @ 5 pm

**30% - Final** **Exam** — Assigned Monday, May 6th @ 5pm, Due Monday, May 13th @ 5pm

**Grading Scale**

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| A | 93-100% | B+ | 87-89.99% | C+ | 77-79.99% | D+ | 67-69.99% | F | <60% |
| A- | 90-92.99% | B | 83-86.99% | C | 73-76.99% | D | 63-66.99% |  |  |
|  |  | B- | 80-82.99% | C- | 70-72.99% | D- | 60-62.99% |  |  |

Requests for an Incomplete (I) must conform to [university policies](https://bit.ly/3bDxwZi). Among other requirements, "I" is possible only when you demonstrate passing work in the class.

**Students with Disabilities**

This instructor, in conjunction with California State University Northridge, is committed to upholding and maintaining all aspects of the federal Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973. If you are a student with a disability and wish to request accommodations, please contact the office of Students with Disabilities Resources located in 110 Student Services Building, or call (818) 677-2684 for an appointment. Any information regarding your disability will remain confidential. Because many accommodations require early planning, requests for accommodations should be made as early as possible. Any requests for accommodations will be reviewed promptly to determine their appropriateness to this setting.

**Statement of Cheating and Plagiarism**

Each student is expected to be familiar with and abide by, the conditions of student conduct, as presented in the CSUN Catalog, with emphasis on sections entitled, Student Conduct Code, Academic Dishonesty, Faculty Policy on Academic Dishonesty,and Penalties. Any student engaging in academic dishonesty (e.g., cheating, fabrication, facilitating academic dishonesty, plagiarism) is subject to discipline, which may include a failing grade in the course and may also be subject to more severe discipline by the University.

**E-mail Policy**

CSUN uses email as the official communication method. Students must check their official CSUN email account regularly to stay up-to-date. Only emails sent to the official CSUN email account will be received.

Use the course mailing list for general questions about course content, assignments, or schedules. For private matters requiring confidentiality, email me directly at my CSUN email address (ovandef@csun.edu). Avoid using the Canvas Inbox, as I do not monitor it and your message may be missed. These guidelines will ensure effective and timely communication throughout our course. Ensure to save the email below to your contacts.

**classsp24.19354-c@csun.edu**

**Course Sequence (subject to change)**

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.

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| **Week** | **Topic** | **Reading** | **Due @ 5pm** |
| **Week 1** Jan 22 | Intro Course and Syllabus | Syllabus | Syllabus quiz (will be posted today by 5pm. |
| **2** Jan 29 | Introduction to motor control  Current issues in motor control | Chapter 1-Introduction (pgs. 1-8)  Chapter 2-Core Problems (pgs. 11-38) | Syllabus Quiz |
| **3**  Feb 5 | Sensory physiology  Presentation guidelines | Chapter 3-Physiological Foundations (pgs. 43-45; 50-55); *see posted slides* | Quiz Ch1 (1-8), Ch2 (11-38) |
| **4** Feb 12 | Vision | Chapter 6-Looking (pgs. 174-207) | Quiz Ch3 (43-45; 50-55)  ~~List of topics~~ |
| **5** Feb 19 | Motor physiology | Chapter 3-Physiological Foundations (pgs. 46-49; 55-89) | Quiz Ch6 (174-207)  List of topics |
| **6** Mar 26 | Psychology and motor control | Chapter 4-Psychological Foundations (pgs. 94-103; 106-131) | Quiz Ch3 (46-49; 55-89) |
| **7**  Mar 4 | Theories of motor control Midterm review | Chapter 4-Psychological Foundations (pgs. 103-106)  Chapter 12-Moving on (pgs. 395-420) | Quiz Ch4 (94-103; 106-131) |
| **8** Mar 11 | **MIDTERM EXAM**  Assigned @ 5pm | Study for midterm | Quiz Ch4 (103-106); Ch12 (395-420) |
| **9**  Mar 18 | **Spring Break – no class** | |  |
| **10** Mar 25 | Locomotion | Chapter 5-Walking (pgs. 136-170) | **Midterm exam** |
| **11** Apr 1 | Reaching and grasping | Chapter 7-Reaching and Grasping (pgs. 214-247) | Quiz Ch5 (136-170) |
| **12**  Apr 8 | Drawing and writing | Chapter 8-Drawing and Writing (pgs. 254-272) | Quiz Ch7 (214-247) |
| **13** Apr 15 | Speaking and singing  Watch presentations | Chapter 10-Speaking and singing (pgs. 324-358) | Quiz Ch8 (254-272)  **Presentations** |
| **14** Apr 22 | Facial control | Chapter 11-Smiling (pgs. 364-376) | Quiz Ch10 (324-358) |
| **15** Apr 29 | Facial control  Final exam review  Watch presentations | Chapter 12-Moving on (pgs. 379-394) | Quiz Ch11 (364-376)  **Presentation Questions** |
| **16** May 6 | Final exam assigned @ 5pm | Study for final | Quiz Ch12 (379-394)  **Presentation Answers** |
| **Finals May** 11-17 |  |  |  |
| **\*\*FINAL EXAM DUE MONDAY, MAY 13 @ 5PM\*\*** | | | |