

The University of British Columbia
School of Kinesiology

Kin 411 (2020/21W Term 2)
Neuroanatomy of Human Movement
Neuroanatomy of human motion in healthy and clinical populations
(previously listed as KIN 473)

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Lecture Location and Time:
Tuesday/Thursday Online 11 am – 12:30 pm

Course Evaluation

1. **Midterm examinations** - All students are **required to write both** mid-term exams.
Midterm exams are written only during regular scheduled class-time online.

Date for Midterm 1 (20%) – Thursday Feb 11th, 2021
Date for Midterm 2 (20%) – Thursday March 18th, 2021

2. **Final Exam** – (60%) All students are **required** to write the final examination online.
Date and time of the final exam set by registrar during final exam period

Note: Midterm tests will not be rescheduled for any reason. Midterm test values can be re-weighted to the Final exam only if written documentation is provided for a University-approved reason for your absence, such as a medical issue or family emergency. If you do not contact your instructor and provide written documentation for an absence from a Midterm, you will be given a score of zero on the assessment.

Prerequisites: Third-year standing

Readings and Resources:

Required Textbook:

“Neuroanatomy Through Clinical Cases” 2nd Edition, by Hal Blumenfeld
Publisher: Sinauer Associates Inc.

Global Learning Objectives

1. To learn functional neuroanatomy through the study of clinical cases
2. To learn how the central nervous system contributes to healthy human movement
3. To learn clinical symptoms associated with movement disorders due to brain injury & disease.

Course Learning Objectives:

By the end of this course, you will be expected to:

- 1) Understand the spatial and functional organization of the brain and spinal cord
- 2) Know the major ascending and descending motor and sensory pathways in the CNS
- 3) Learn the major symptoms of movement disorders due to brain injury and disease
- 4) Be able to diagnose from clinical symptoms, the major neural structures and pathways involved in a specific movement disorder
- 5) Demonstrate a professional behavior toward class participation and involvement.

Class notes and use of Canvas:

Class notes (skeleton version) will be made available in PPT file-format through the course website. Students are encouraged to have these notes accessible along with paper and pen for each class. Notes will be posted 18-hours prior to each class. Please keep in mind that these notes provide a basic overview of what will be covered and do not contain important details, information related to discussions, in-class assignments, or specific examples, which will be covered in class. References are made to specific figures found within the required textbook. The instructor and teaching assistants will not make a full set of notes available online, and will not provide them upon request. Missed class notes should be acquired from your classmates, or from recorded lectures if made available online.

Online Classes:

All lectures will be delivered online on Zoom, made available through a link on the KIN 411 Course Canvas webpages. Online classes will be presented 'live' and synchronous with the regular scheduled lecture times, unless otherwise notified. Recordings of the 'live' online lectures will be made available after the class in an unedited format.

Policies and Expectations:

Class Attendance

Regular online attendance is expected of students for all lectures. Students who neglect their academic work and assignments may be excluded from final examinations.

Students who are unavoidably absent because of illness or disability should report to their instructors on return to classes.

Academic Accommodation for Students with Disabilities

The University's goal is to ensure fair and consistent treatment of all students, including students with a disability, in accordance with their distinct needs and in a manner consistent with academic principles. Students with a disability who wish to have an academic accommodation should contact Access and Diversity without delay.

Academic Integrity

All UBC students are expected to behave as honest and responsible members of an academic community. Breach of those expectations or failure to follow the appropriate

policies, principles, rules, and guidelines of the University with respect to academic honesty may result in disciplinary action. It is your responsibility to become familiar with the University of British Columbia's Academic Honesty and Plagiarism Policies, as well as the Student Declaration and the consequences of violating these policies. Links to these specific policies and standards have been provided below for your reference:

1. The Student Declaration
(<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,285,0,0>)
2. The Academic Honesty and Standards
(<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,286,0,0>)
3. The Student Conduct During Examinations
(<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,41,90,0>)

General Outline of Lectured Topics

- A. Overview of Neuroanatomy
- B. Disorders involving Primary Motor Cortex and Cortico-spinal Tracts
- C. Disorders involving Primary Somatosensory Cortex and Ascending Afferent Pathways
- D. Disorders involving Higher Order Processing
- E. Disorders involving the Basal Ganglia
- F. Disorders involving Cerebellum
- G. Disorders involving Cranial Nerves V, VII, VIII
- H. Major Vascular Supplies to Brain and Spinal Cord

UBC ADVISORY NOTE:

During this pandemic, the shift to online learning has greatly altered teaching and studying at UBC, including changes to health and safety considerations. Keep in mind that some UBC courses might cover topics that are censored or considered illegal by non-Canadian governments. This may include, but is not limited to, human rights, representative government, defamation, obscenity, gender or sexuality, and historical or current geopolitical controversies. If you are a student living abroad, you will be subject to the laws of your local jurisdiction, and your local authorities might limit your access to course material or take punitive action against you. UBC is strongly committed to academic freedom, but has no control over foreign authorities (please visit <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,33,86,0> for an articulation of the values of the University conveyed in the Senate Statement on Academic Freedom). Thus, we recognize that students will have legitimate reason to exercise caution in studying certain subjects. If you have concerns regarding your personal situation, consider postponing taking a course with manifest risks, until you are back on campus or reach out to your academic advisor to find substitute courses. For further information and support, please visit: <http://academic.ubc.ca/support-resources/freedom-expression>