

Syllabus for CSD 9534B: Introduction to Assessment and Management of the Vestibular System, Winter 2021

INSTRUCTOR:

Ioan Curca, icurca@uwo.ca, Room 2593, Elborn College, 519 661-2111 ext. 81595

Teaching Assistant: Yan Jiang, yjian352@uwo.ca

Office hours: Fridays from 1 pm to 3 pm, via Zoom.

CLASS TIME & ROOM:

This course is "hybrid", which means that for the most if it we do not have to meet as a group all at a particular time. Instead, pre-recorded lectures and readings will be posted in OWL on Monday noon and you will determine your own schedule for working through course activities and materials so that you can meet the course deadlines. We will only meet in person on March 19th and 20 with the first half of the class and on March 26th and 27th with the second half, at Elborn College, when we will practice concepts learned during this course. The instructor will be available via Zoom, during office hours, to respond to your questions.

COURSE DESCRIPTION:

This course provides an introduction of vestibular test procedures, results, analysis, and treatment, including videonystagmography (VNG), vestibular evoked myogenic potentials (VEMP), video head impulse test (vHIT) and bedside evaluation. Vestibular rehabilitation therapy (VRT), canalith repositioning techniques, and fall risk assessments are discussed and evaluated.

GOALS:

After completing this course, students should be able to:

- Describe the basic anatomy and physiology of the vestibular system and relate to normal and abnormal vestibular test results.
- Synthesize history and test results to differentially diagnose various vestibular or related disorders.
- Recognize normal versus abnormal oculomotor, positional, headshake and caloric test results.
- Identify the various types of nystagmus including direction and duration.
- Describe the advantages and disadvantages of VNG and bedside exams.
- Differentiate central versus peripheral vestibular function and dysfunction.
- Describe and interpret cervical and ocular VEMP and vHIT protocols and results.

- Determine and perform appropriate maneuvers designed to treat benign paroxysmal positional vertigo.
- Practice standardized balance assessments and determine fall risk.
- Recognize candidates for vestibular rehabilitation therapy.
- Recognize the need for referral to medical specialists or other professionals; and
- Recognize complications and knowledge to deal with them

COURSE STRUCTURE:

The course will cover fundamental physiological, psychophysical, and technological issues, and also issues of clinical practice. Classroom lectures will be supplemented by hands-on laboratory sessions and other active learning opportunities.

PREREQUISITES:

This course is open to second-year M.Cl.Sc. Audiology students and, by permission of the instructors, to graduate students from other programs. Familiarity with the ear anatomy and physiology, and the hearing science material covered in CSD 4417 is assumed.

ZOOM USE FOR MEETINGS

Completion of this course will require you to have a reliable internet connection and a device that meets the system requirements for Zoom. Information about the system requirements are available at the following link: <https://support.zoom.us/hc/en-us>.

Please note that Zoom servers are located outside Canada. If you would prefer to use only your first name or a nickname to login to Zoom, please discuss this with your instructor in advance.

TEXTBOOK & OTHER MATERIALS

Recommended text:

- Jacobson GP & Shepard, NT. (2013). Balance Function Assessment and Management (BFAM); 2nd Ed. Plural Publishing Group, Inc. (ISBN 978-1-59756-547-9)
- Alan Desmond (2011). Vestibular Function: Clinical and Practice Management. Thieme. (ISBN 1604063610, 9781604063615)
- Bre Lyn Myers (2018). Vestibular Lab Manual, Second Edition. Plural Publishing Group, Inc. (ISBN 163550080X) – available online at Western Library:

<https://ebookcentral-proquest-com.proxy1.lib.uwo.ca/lib/west/reader.action?docID=5509498>

Additional selected readings will be provided from other textbooks and from the research literature.

EVALUATION:

35% midterm exam

*20% written laboratory reports and activities**

40% final exam

5% participation

**: Lab reports must be handed in as individual work.*

MIDTERM EXAM

There will be one midterm real-time OWL exam focusing on the concepts presented in the first half of the course. A grade of at least 60% on the midterm exam is necessary to pass this course.

FINAL EXAM

There will be a final real-time OWL exam focusing on the concepts presented during the second half of the course. The final exam will be written during the regular final exam period. A grade of at least 60% on the final exam is necessary to pass this course.

The midterm and final exams in this course are designed to be completed within 3 hours in a standard in-person exam format. Following the principles of Universal Instructional Design, all students will be provided 6 hours to complete this exam in a timed online format, which will meet the needs of any students requiring extra time as part of their academic accommodations.

PARTICIPATION

Students are expected to contribute to in-class discussion and dialog. Discussion topics will include issues raised by lecture material, assigned readings, and others that arise.

ATTENDANCE

Please refer to the Student Handbook for our Program's absence policy. If you are unable to participate in any scheduled activity for any reason (including a positive COVID screening result), please contact all relevant instructors as soon as possible. If you require academic relief (e.g. make-up exam, change of due date) due to an absence, you must request it through the Student Support Committee, and documentation may be required. If you must miss in-person instruction sessions due to a positive COVID screening result or to illness, we will assist you in completing those activities as soon as is feasible once you are able to return.

ACADEMIC RELIEF

If you require academic relief in this course (e.g. deadline extension, make-up exam, etc, due to illness or other extenuating circumstance), you must request it formally via the CSD Student Support Committee (SSC). Please contact Donna Beer (dbeer@uwo.ca) to be connected with a member of the SSC for assistance.

LABORATORY ACTIVITIES & REPORTS

Lab 1 - Vestibular Pathologies Assignment (10%). This assignment requires in depth research into your chosen pathology. You will prepare a complete case history and a handout for your classmates.

Lab 2 and 3 – At-home activities (5% each) consist in practicing and video recording tests and procedures learned in lectures.

READINGS

The material covered in this course is extensive, and some of the concepts may not be familiar to you. The topic requires a mix of audiology, physiology, and engineering. Lectures and the texts are complementary, but not the same. You should both attend lectures and refer to written material, posted on OWL, to help consolidate what you have learned in class. For examinations, the emphasis will be from the lectures, but reading a text can really help you to understand the material. Since this course lays the groundwork for very important clinical measurement techniques, it is important that you make the effort to learn the fundamentals!

RECORDINGS OF REMOTE LEARNING SESSIONS

All the remote learning sessions for this course will be recorded. The data captured during these recordings may include your image, voice recordings, chat logs and personal identifiers (name displayed on the screen). The recordings will be used for educational purposes related to this course, including evaluations. The recordings may be disclosed to other individuals under special circumstances. Please contact the instructor if you have any concerns related to session recordings.

Participants in this course are not permitted to record the sessions, except where recording is an approved accommodation, or the participant has the prior written permission of the instructor.

OTHER NOTES:

Accessibility: Western is committed to achieving barrier-free accessibility for all its members, including graduate students. As part of this commitment, Western provides a variety of services devoted to promoting, advocating, and accommodating persons with disabilities in their respective graduate program.

Graduate students with disabilities (for example, chronic illnesses, mental health conditions, mobility impairments) are encouraged to register with Student Accessibility Services, a confidential service designed to support graduate and undergraduate students through their academic program. With the appropriate documentation, the student will work with both SAS and their graduate programs (normally their Graduate Chair and/or Course instructor) to ensure that appropriate academic accommodations to program requirements are arranged. These accommodations include individual counseling, alternative formatted literature, accessible campus transportation, learning strategy instruction, writing exams, and assistive technology instruction.

For more information, see <http://academicsupport.uwo.ca/>

OWL: The class web page will be used to make lecture materials available.

Online assistance: If you need to ask a straightforward question by email, I will respond during regular business hours. Please use your Western email and informative subjective lines that begin with 9534. If your question is course-related, post it to our discussion forums. If your question is likely of interest to the class, we may post an anonymized version and its response on OWL after our discussion. See student conduct below for further information about emails.

Health and Wellness

As part of a successful graduate student experience at Western, we encourage students to make their health and wellness a priority. Western provides several on campus health-related services to help you achieve optimum health and engage in healthy living while pursuing your graduate degree.

b. Students who are in emotional/mental distress should refer to <https://www.uwo.ca/health/psych/index.html> for a complete list of options about how to obtain help.

STUDENT CONDUCT:

Plagiarism: Students must do their own work. It is encouraged to learn together, but each individual must understand the material, work through problems themselves, and submit only their own individual work. If written answers use ideas or short passages from other authors, they must be properly referenced. Plagiarism is a major offense (see Scholastic Offence Policy in the Western Academic Calendar). Papers and reports may be required to be submitted online via the OWL interface.

Passing Requirements: This course contains both group work and specific pass requirements (required elements), as specified above. To pass this course you must attain a grade of at least 60% according to the usual grade weighting given above AND you must attain a grade of at least 60% across the individual (non-group) work elements AND attain at least the passing grade for each required element. If your grade on individual work is lower than 60% OR if you have not passed each of the required elements, your submitted grade will be the lower of: a) 59% and b) your grade calculated as usual according to the weighting given above. That is, the highest grade possible if individual work and/or required elements are not passed would be 59%.

Lab reports and project milestones: Late submissions will be accepted, but there will be a penalty without a valid excuse (e.g. doctor's note). For lab reports, the penalty is 10% of the assignment's value per day, and for project milestones, the daily penalty is 1 percentage point of the total (15%) regardless of the grade value of the milestone.