

1. Course Information

Physiology of the Senses 4710-001 4710-650

Fall Term 2019

Lectures:

Room 1170 in the Interdisciplinary Research Building.

Thursdays from 12:30 to 2:30.

A Video of each lecture will be posted every Friday

Tutorials:

MC-17 Middlesex College Tuesdays or SH-3307 Somerville House on Wednesdays 4:30 to 5:30, or **online** through OWL in the BBC VRoom, on Tuesday 8pm

Requisites:

Physiology 3120 or an equivalent

Senate regulation regarding the student's responsibility regarding requisites:

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Accessibility Statement

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x 82147 for any specific question regarding an accommodation.

2. Instructor Information

Instructor: Prof Tutis Vilis	Email: vilis@uwo.ca	Office Room 3180, Brain and Mind Institute, Interdisciplinary Research Building.	Phone	Office Hours: 3:30 to 5 PM Thursdays
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OWL:

Students with OWL issues should see: <https://owlhelp.uwo.ca>

3. Course Syllabus

- This course provides students with an introduction to the function of the many stages used by the nervous system to process our sensory inputs; its sensory physiology including that of touch, taste, pain, smell, vision, motion and hearing. The focus is on a concise and lucid description for how the various brain regions function and interact. Each sensory modality is used to exemplify a particular aspect of sensory processing from how stimuli are encoding at the periphery to the feature extraction processes of the sensory cerebral cortex.
- The first half of the course deals with vision from its detection in the eye to the function of the cerebral cortex in the recognition of objects including faces and the cortical role in directing one's actions to these objects. This emphasis on vision stems from the fact that more is known about vision than the other senses and because the mechanisms adopted by the visual system are mirrored and adopted by the other senses.
- By the end of the course, successful students will be able to identify the pathways used by each of the senses for perception.

By the end of the course, successful students will be able to explain the mechanisms used by each of the senses for transduction.

Session 1	The Eye
Session 2	Primary Visual Cortex
Session 3	Visual Perception of Objects
Session 4	Visual Perception of Motion
Session 5	Association Cortex
Session 6	Streams for Visually Guided Action
Session 7	Touch, Pain, Taste and Smell
Session 8	Muscle Sense
Session 9	Hearing
Session 10	Balance
Session 11	Eye Movements
Session 12	Memory

4. Course Materials

Copyright Statement:

Course material produced by faculty is copyrighted and to reproduce this material for any purposes other than your own educational use contravenes Canadian Copyright Laws.

All the course materials are posted on OWL and this [web site](#).

5. Evaluation:

A detailed and comprehensive set of regulations concerning the scheduling of tests, assignments, etc. is available at:

<http://www.westerncalendar.uwo.ca/PolicyPages.cfm?PolicyCategoryID=5&command=showCategory&SelectedCalendar=Live&ArchiveID=>

Policy on the Rounding and Bumping of Marks:

*Across the Basic Medical Sciences Undergraduate Education programs and within the department of **Physiology and Pharmacology** we strive to maintain high standards that reflect the effort that both students and faculty put into the teaching and learning experience during this course. All students will be treated equally and evaluated based only on their actual achievement. **Final grades** on this course, irrespective of the number of decimal places used in marking individual assignments and tests, will be calculated to one decimal place and rounded to the nearest integer, e.g., 74.4 becomes 74, and 74.5 becomes 75. Marks WILL NOT be bumped to the next grade or GPA, e.g. a 79 will NOT be bumped up to an 80, an 84 WILL NOT be bumped up to an 85, etc. The mark attained is the mark you achieved and the mark assigned; requests for mark “bumping” will be denied.*

The **evaluation** consists of:

- Final examination 50% - 3 hrs., about 60 multiple choice questions.
- Midterm test 30% - 1.5 hrs., about 30 multiple choice questions. The midterm **covers lectures 1 through 6.**
- Weekly OWL Quiz 20%. 3 to 5 multiple choice questions to be completed using OWL every Wednesday any time between 5:30 and midnight.

6. Additional Information/Statements

Statement on Academic Offences

“Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following website:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf

“Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.”

Statement on the use of Cell Phone and Electronic Devices

The Schulich School of Medicine and Dentistry is committed to ensuring that testing and evaluation are undertaken fairly across all our departments and programs. For all tests and exams, it is the policy of the School and the Department of Physiology and Pharmacology that any electronic devices (e.g. cell phone, tablet, camera, watch, smart watch, ipod, ear buds, headphones) are strictly prohibited. These devices **MUST** be left either at home or with the students bag/jacket at the front of the room and **MUST NOT** be at the test/exam desk or in the individuals pocket. Any student found with one of these prohibited devices will receive a grade of zero on the test or exam. Non-programmable calculators are only allowed when indicated by the instructor. The Department of Physiology and Pharmacology is not responsible for stolen/lost or broken devices.

Statement on Discussion of Grades

The Department of Physiology and Pharmacology is committed to fair assessment of student work and encourages students to discuss course content and graded work with their peers in an effort to improve learning.

For Students: While all students have the right to question their grade should they feel it's inaccurate, this exercise should be undertaken in a respectful manner. Professionalism and respect should be demonstrated in all interactions with instructors and peers. When discussing a grade or exam question with a professor or teaching assistant, the discussion should focus on your individual concern. Students should remember that some forms of assessment or specific questions are designed to be more challenging than others. In this situation, there may be several students that don't receive the correct answer and this does not necessarily mean that there is a problem with the question or assessment. Concerns from one student that indicate that they are communicating on behalf of a larger group of peers (mob/crowd mentality) will not be considered. Concerns with an assessment should be communicated to the instructor and should reflect your individual concern. Threats of any sort will not be tolerated and will be considered a violation of the student code of conduct. It is a requirement that you treat your instructors with respect and you should expect the same respect returned to you by your instructor.

For Professors and Teaching Assistants: All professors and teaching assistants should keep an open mind when discussing graded work with students. Make an effort to listen to students and try and see their point of view. If there was ambiguity in a question or multiple correct answers that a student brings to your attention, you should revise the grade. If the student concern is not adequately justified, explain your reasoning. Students that have concerns regarding an exam question or graded assignment deserve to be treated with respect. Treat with them with the same respect that you expect from them. That being said, concerns from one student that indicate that they are communicating on behalf of a larger group of peers (mob/crowd mentality) should not be considered.

Statement on Appeals

The Department of Physiology and Pharmacology follows the Western University student academic appeals policy

(http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#SubHeading_181). All appeals to individual graded course components must be submitted to the course instructor within 3 weeks of the grade being released. All final course grade appeals must be received by January 31 (1st term classes) or June 30 (2nd term half classes and full year classes). You must first appeal to the course manager. If this appeal is rejected, then you can appeal to the Undergraduate Chair of the Department of Physiology and Pharmacology. If this appeal is rejected, you may then appeal to the Associate Dean of the Bachelor of Medical Sciences Undergraduate Education Committee.

You must have suitable grounds for appeal which may include: 1) appeal on medical or compassionate grounds; 2) appeal based on extenuating circumstances beyond your control; 3) appeal based on bias, inaccuracy or unfairness. All appeals must be accompanied by a detailed explanation along with supporting documentation. You should submit your appeal as an e-mail with a single attachment. If you have multiple supporting documents, you should merge them into a single document.

Absence from course commitments

Medical/Compassionate Relief Program Policy

*It is current policy that students who are unable to write a test or examination or other form of course evaluation are required to obtain a medical certificate that is taken to the Academic Counseling Office, NCB 280 (for Science and Basic Medical Science students) or to your appropriate Home Faculty Counseling Office. In the case of an unexpected absence on compassionate grounds, documentation is also requested. **Such documentation must be submitted by the student directly to the Academic Counseling office and not to the instructor.** An academic counselor in that office will review and either approve or deny the accommodation request. It will be the Academic Counseling office that will determine if accommodation is warranted. This policy applies to all forms of assessment, including evaluations that are less than 10%.*

Permission for not completing a particular weekly quiz must be obtained by email (vilis@uwo.ca) **prior** to the quiz.

A. Absence for medical illness:

Students must familiarize themselves with the Policy on Accommodation for Medical Illness for Undergraduate Students, located at:

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?PolicyCategoryID=1&Command=showCategory&Keywords=medical&SubHeadingID=323&SelectedCalendar=Live&ArchiveID=#SubHeading_323

Statement from the Academic Counselling Office, Faculty of Science (for Science and BMSc students)

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or other supporting documentation to the Academic Counselling Office as soon as possible and contact your instructor immediately. It is the student's responsibility to make alternative arrangements with their instructor once the accommodation has been approved by the Academic Counselling Office and the instructor has been informed. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from the Academic Counselling Office immediately.

A student requiring academic accommodation due to illness, should use the Student Medical Certificate when visiting an off-campus medical facility or request a Record's Release Form (located in the Dean's Office) for visits to Student Health Services.

The form can be found at:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf

B. Absence for non-medical reasons:

Permission for not completing a particular weekly quiz must be obtained by email (vilis@uwo.ca) **prior** to the quiz.

C. Special Examinations

http://www.westerncalendar.uwo.ca/PolicyPages.cfm?PolicyCategoryID=5&Command=showCategory&Keywords=special%20examination&SubHeadingID=70&SelectedCalendar=Live&ArchiveID=#SubHeading_70

A Special Examination is any examination other than the regular final examination, and it may be offered only with the permission of the Dean/Academic Counselling Office of the Faculty in which the student is registered, in consultation with the instructor and Department Chair. Permission to write a Special Examination may be given on the basis of compassionate or medical grounds with appropriate supporting documents.

A Special Examination must be written at the University or an Affiliated University College no later than 30 days after the end of the examination period involved. To accommodate unusual circumstances, a date later than this may be arranged at the time permission is first given by the Dean/Academic Counselling Office of the Faculty. The Dean/Academic Counselling Office

will consult with the instructor and Department Chair and, if a later date is arranged, will communicate this to the Office of the Registrar.

If a student fails to write a scheduled Special Examination, permission to write another Special Examination will be granted only with the permission of the Dean/Academic Counselling Office in exceptional circumstances and with appropriate supporting documents. In such a case, the date of this Special Examination normally will be the scheduled date for the final exam the next time the course is offered.

When a grade of Special (SPC) or Incomplete (INC) appears on a student's record, the notations will be removed and replaced by a substantive grade as soon as the grade is available.

Support Services:

Registrarial Services: <http://www.registrar.uwo.ca>

Academic Counselling (Science and Basic Medical Sciences): <http://www.uwo.ca/sci/counselling>

USC Student Support Services: <http://westernusc.ca/services/>

Student Development Services: <http://www.sdc.uwo.ca>

Student Health Services: <http://www.shs.uwo.ca/>

Students who are in emotional/mental distress should refer to Mental Health@Western https://www.uwo.ca/health/mental_wellbeing/self/student.html for a complete list of options about how to obtain help.