Dept. Physiology and Pharmacology  
Neurophysiology of homeostasis and stress, Phys 4650A  
Course Syllabus for Fall 2023

Western University is committed to a thriving campus; therefore, your health and wellness matter to us! The following link provides information about the resources available on and off campus to support students: [https://www.uwo.ca/health/](https://www.uwo.ca/health/) Your course coordinator can also guide you to resources and/or services should you need them.

1. Technical Requirements:

- Stable internet connection
- Laptop or computer

2. Important Dates:

<table>
<thead>
<tr>
<th>Classes Begin</th>
<th>Classes End</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thursday, September 7, 2023</td>
<td>Friday, December 8, 2023</td>
</tr>
</tbody>
</table>

* November 13, 2023: Last day to drop a first-term half course without academic penalty*

<table>
<thead>
<tr>
<th>Reading Week</th>
<th>Study day(s)</th>
<th>Exam Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 30–November 5</td>
<td>December 9</td>
<td>December 10–22</td>
</tr>
</tbody>
</table>

3. Contact Information

<table>
<thead>
<tr>
<th>Course Coordinator</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wataru Inoue</td>
<td>Please use OWL message</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Instructor(s) or Teaching Assistant(s)</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anamika Dutta</td>
<td>Please use OWL message</td>
</tr>
</tbody>
</table>
4. Course Description and Design

Delivery Mode: In person

The hypothalamus and limbic system contribute to the neural integration of autonomic, endocrine and skeletomotor responses which contribute to homeostasis and adaptive behaviors. Topics include the regulation of neuroendocrine function, blood pressure, energy and water balance, circadian rhythms, and the integration of reproductive function.

Prerequisite(s): Physiology 3120 and 3140A; or Neuroscience 2000, Physiology 3140A and registration in Year 4 of an Honours Specialization in Neuroscience.

Timetabled Sessions

<table>
<thead>
<tr>
<th>Component</th>
<th>Date(s)</th>
<th>Time</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

☑ Asynchronous pre-work must be completed prior to sessions
☑ Attendance at sessions is required
☑ Missed work should be completed within 24 hours

All course material will be posted to OWL: http://owl.uwo.ca. Any changes will be indicated on the OWL site and discussed with the class.

If students need assistance, they can seek support on the OWL Help page. Alternatively, they can contact the Western Technology Services Helpdesk. They can be contacted by phone at 519-661-3800 or ext. 83800.

Google Chrome or Mozilla Firefox are the preferred browsers to optimally use OWL; update your browsers frequently. Students interested in evaluating their internet speed, please click here.

5. Learning Outcomes

Upon successful completion of this course, students will be able to:

- explain the definition of homeostasis in physiology and describe examples of physiological homeostasis regulations and their underlying neurophysiology, through in class discussions as well as written exams.

- deliver key findings and critique limitations of primary research papers through online discussions and independent written summary reports.

- explain some in depth examples of physiological regulations relevant to homeostasis (e.g. hypertension, obesity, stress and sleep apnea), and to assess research publications in these fields by student-driven presentations and discussions.

- evaluate scientific literature and synthesize concepts to create a literature review about the neural regulation of homeostasis and stress response.
6. Course Content and Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Topic</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sept 13</td>
<td>COURSE INTRODUCTION (asynchronous video recording)</td>
<td>Wataru Inoue</td>
</tr>
<tr>
<td>2</td>
<td>Sept 20</td>
<td>STRESS RESPONSE: AUTONOMIC AND ENDOCRINE RESPONSE</td>
<td>Wataru Inoue</td>
</tr>
<tr>
<td>3</td>
<td>Sept 27</td>
<td>HOMEOSTASIS and STRESS RESPONSE: DIVERSE AND COORDINATED RESPONSE.</td>
<td>Wataru Inoue</td>
</tr>
<tr>
<td>4</td>
<td>Oct 4</td>
<td>BODY FLUID HOMEOSTASIS</td>
<td>Wataru Inoue</td>
</tr>
<tr>
<td>5</td>
<td>Oct 11</td>
<td>Paper presentation and discussion</td>
<td>Wataru Inoue</td>
</tr>
<tr>
<td>6</td>
<td>Oct 18</td>
<td>Paper presentation and discussion</td>
<td>Wataru Inoue</td>
</tr>
<tr>
<td>7</td>
<td>Oct 25</td>
<td>Paper presentation and discussion</td>
<td>Wataru Inoue</td>
</tr>
<tr>
<td>8</td>
<td>Oct 30–Nov 5</td>
<td>Reading Week</td>
<td>N/A</td>
</tr>
<tr>
<td>9</td>
<td>Nov 8</td>
<td>Paper presentation and discussion</td>
<td>Wataru Inoue</td>
</tr>
<tr>
<td>10</td>
<td>Nov 15</td>
<td>Paper presentation and discussion</td>
<td>Wataru Inoue</td>
</tr>
<tr>
<td>11</td>
<td>Nov 22</td>
<td>Paper presentation and discussion</td>
<td>Wataru Inoue</td>
</tr>
<tr>
<td>12</td>
<td>Nov 29</td>
<td>STRESS RESPONSE: THE LIMBIC AND CORTICAL CONTROL</td>
<td>Wataru Inoue</td>
</tr>
<tr>
<td>13</td>
<td>Dec 6</td>
<td>NEUROBIOLOGY OF STRESS ADAPTATION</td>
<td>Wataru Inoue</td>
</tr>
</tbody>
</table>

7. Participation and Engagement

☑ Students are expected to participate and engage with content as much as possible
☑ Students can participate during in person lectures and student presentation.
☑ Students can also participate on-line by interacting in the forums with their peers and instructors
8. Evaluation

Below is the evaluation breakdown for the course. Any deviations will be communicated.

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Format</th>
<th>Weighting</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm Assignment</td>
<td>Short writing</td>
<td>15%</td>
<td>October 11, 2023</td>
</tr>
<tr>
<td>Research Paper Presentation</td>
<td>Presentation</td>
<td>20%</td>
<td>5 PM, one day before (Tuesday) you present</td>
</tr>
<tr>
<td>Discussion Leader Grade</td>
<td>Leading class discussion</td>
<td>10%</td>
<td>Lead classroom discussion (synchronous)</td>
</tr>
<tr>
<td>Attendance &amp; Class participation</td>
<td></td>
<td>5%</td>
<td>NA</td>
</tr>
<tr>
<td>Short Summaries</td>
<td>1-page lay summary, 2 summaries per year</td>
<td>15% (7.5 x 2)</td>
<td>Next Wednesday (1 week after) the presentation of the paper you choose</td>
</tr>
<tr>
<td>Final Assignment – Take Home Exam</td>
<td>Review paper</td>
<td>35%</td>
<td>December 19th, 2023</td>
</tr>
</tbody>
</table>

☑️ All assignments are due at 11:55 pm EST unless otherwise specified
☑️ Students are responsible for ensuring that the correct file version is uploaded (word file for all written assignments); incorrect submissions including corrupt files could be subject to late penalties (see below) or a 0
☑️ Written assignments will be submitted to Turnitin (statement in policies below)
☑️ Students will have unlimited submissions to Turnitin
☑️ Rubrics will be used to evaluate assessments and will be posted with the instructions
☑️ A student might not receive the same grade as their group members if it is determined that the distribution of work was not equal
☑️ After an assessment is returned, students should wait 24 hours to digest feedback before contacting their evaluator; to ensure a timely response, reach out within 7 days
☑️ Any grade appeals on assignments, quizzes, or midterms must be received within 3 weeks of the grade being posted.
☑️ 15% of your course grade will be evaluated and returned 3 days prior to the drop deadline (statement in policies below).

Click here for a detailed and comprehensive set of policies and regulations concerning examinations and grading. The table below outlines the University-wide grade descriptors.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>90-100 One could scarcely expect better from a student at this level</td>
</tr>
<tr>
<td>A</td>
<td>80-89 Superior work which is clearly above average</td>
</tr>
<tr>
<td>B</td>
<td>70-79 Good work, meeting all requirements, and eminently satisfactory</td>
</tr>
<tr>
<td>C</td>
<td>60-69 Competent work, meeting requirements</td>
</tr>
<tr>
<td>D</td>
<td>50-59 Fair work, minimally acceptable</td>
</tr>
<tr>
<td>F</td>
<td>below 50 Fail</td>
</tr>
</tbody>
</table>

Information about late or missed evaluations:

☑️ Late assessments without accommodation will be subject to a late penalty 5%/day
☑️ An assessment cannot be submitted after it has been returned to the class; an alternate assessment will be assigned.
All course components (e.g., midterm and final assignment, lay summaries, presentation, discussion leader) must be completed to pass the course.

**INC (Incomplete Standing):** If a student has been approved by the Academic Counselling Office (in consultation with the instructor/department) to complete term work at a later date, an INC will be assigned. Students with INC will have their course load in subsequent terms reduced to allow them to complete outstanding course work. Students may request permission from Academic Counselling to carry a full course load for the term the incomplete course work is scheduled.

**SPC (Special examination):** If a student has been approved by the Academic Counselling Office to write a Special Examination and the final exam is the only outstanding course component, an SPC will be assigned. If the class has a makeup exam, the student is expected to write the makeup exam. If the class doesn’t have a makeup exam or the student misses the makeup exam for reasons approved by the Academic Counselling Office, the student will write the exam the next time the course is offered. Outstanding SPCs will reduce the course load for the term the exam is deferred as outlined in Types of Examinations policy.

9. **Communication:**
   - Students should check the OWL site every 24–48 hours
   - Students should email their instructor(s) and teaching assistant(s) using OWL
   - OWL will be monitored daily; students will receive a response in 24–48 hours
   - This course will use forum for discussions
   - Students should post all course-related queries on the discussion forum so that everyone can access the questions and responses

10. **Office Hours:**
   - Office hours will be held in-person or remotely using Zoom.
   - Office hours will be held by appointment.
   - Office hours will be booked.
   - Office hours will be individual or group

11. **Resources**
   - All resources will be posted in OWL

12. **Professionalism & Privacy:**
    Western students are expected to follow the Student Code of Conduct. Additionally, the following expectations and professional conduct apply to this course:
    - All course materials created by the instructor(s) are copyrighted and cannot be sold/shared (e.g., Must Knows Facebook group, Course Hero, Chegg, etc.)
    - Recordings are not permitted (audio or video) without explicit permission
    - Permitted recordings are not to be distributed
    - Students will be expected to take an academic integrity pledge before some assessments

Western is committed to providing a learning and working environment that is free of harassment and discrimination. All students, staff, and faculty have a role in this commitment and have a responsibility to ensure and promote a safe and respectful learning and working environment.
Relevant policies include Western’s Non-Discrimination/Harassment Policy (M.A.P.P. 1.35) and Non-Discrimination/Harassment Policy – Administrative Procedures (M.A.P.P. 1.35).

Any student, staff, or faculty member who experiences or witnesses’ behaviour that may be harassment or discrimination must report the behaviour to the Western’s Human Rights Office. Harassment and discrimination can be human rights-based, which is also known as EDI-based, (sexism, racism, transphobia, homophobia, islamophobia, xenophobia, antisemitism, and ableism) or non-human rights-based (personal harassment or workplace harassment).

13. How to Be Successful in this Class:

Students enrolled in this class should understand the level of autonomy and self-discipline required to be successful.

1. Invest in a planner or application to keep track of your courses. Populate all your deadlines at the start of the term and schedule your time throughout the course.
2. Make it a daily habit to log onto OWL to ensure you have seen everything posted to help you succeed in this class.
3. Take notes as you go through the lesson material. Keeping handwritten notes or even notes on a regular Word document will help you learn more effectively than just reading or watching the videos.
4. Connect with others. Try forming an online study group and try meeting on a weekly basis for study and peer support.
5. Do not be afraid to ask questions. If you are struggling with a topic, check the online discussion boards or contact your instructor(s) and or teaching assistant(s).
6. Reward yourself for successes. It seems easier to motivate ourselves knowing that there is something waiting for us at the end of the task.

14. Western Academic Policies and Statements

Absence from Course Commitments

A. Absence for medical illness:

Students must familiarize themselves with the Accommodation for Illness Policy.

A student seeking academic accommodation for any work worth less than 10% must contact the instructor or follow the appropriate Department or course specific instructions provided on the course outline. Instructors will use good judgment and ensure fair treatment for all students when considering these requests. You are not required to disclose details about your situation to your instructor; documentation is not required in this situation, and you should not send any pictures to your instructor.

If you are unable to meet a course requirement for any work worth 10% or greater due to illness or other serious circumstances, you must provide valid medical or other supporting documentation to the Academic Counseling 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 and the instructor has been informed. Please note that the format of a make-up test, exam, or assignment is at the discretion of the course coordinator.

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:

Course materials cannot be sold/shared.
Student absences might also be approved for non-medical reasons such as religious holidays and compassionate situations. Please review the policy on Accommodation for Religious Holidays. All non-medical requests must be processed by Academic Counselling. Not all absences will be approved; pay attention to the academic calendar and final exam period when booking any trips.

C. Special Examinations

A Special Examination is any examination other than the regular examination, and it may be offered only with the permission of the Dean 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. To provide an opportunity for students to recover from the circumstances resulting in a Special Examination, the University has implemented Special Examinations dates. These dates as well as other important information about examinations and academic standing can be found here.

Academic Offenses

Scholastic offences are taken seriously, and students are directed here to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence.

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 Accessible Education (AE) at 661-2111 x 82147 for any specific question regarding an accommodation or review The policy on Accommodation for Students with Disabilities.

Correspondence Statement

The centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner. You can read about the privacy and security of the UWO email accounts here.

Discovery Credit Statement

Students are permitted to designate up to 1.0 Discovery Credit course (or equivalent) for pass/fail grading that can be counted toward the overall course credits required for their degree program. The details of this policy and the deadlines can be found here.

Turnitin and other similarity review software

All assignments will be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. Students will be able to view their results before the final submission. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between Western University and Turnitin.com.

15. BMSUE Academic Policies and Statements

   Cell Phone and Electronic Device Policy (for in-person tests and exams)
The Schulich School of Medicine & 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 that any electronic devices, i.e., cell phones, tablets, cameras, smart glasses, smart watches or iPods are strictly prohibited. These devices MUST be left either at home or with the student’s bag/jacket at the front of the room and MUST NOT be at the test/exam desk or in the individual’s 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 program is not responsible for stolen/lost or broken devices.

Copyright and Audio/Video Recording 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. You must always ask permission to record another individual and you should never share or distribute recordings.

Rounding of Marks Statement

Across the Basic Medical Sciences Undergraduate Education programs, 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.

Use of ChatGPT and other Artificial Intelligence (AI) Platforms Statement

Within this course, students are permitted to use AI tools exclusively for information gathering and preliminary research purposes. These tools are intended to enhance the learning experience by providing access to diverse information sources. However, it is essential that students critically evaluate the obtained information, exercise independent thinking, and engage in original research to synthesize and develop their own ideas, arguments, and perspectives. The use of AI tools can serve as a starting point for exploration, with students expected to uphold academic integrity by appropriately attributing all sources and avoiding plagiarism. Assignments and/or lab reports should reflect the students’ own thoughts and independent written work. By adhering to these guidelines, students contribute to a responsible and ethical learning environment that promotes critical thinking, independent inquiry and allows them to produce original written contributions.

16. Support Services

The following links provide information about support services at Western University.

Western is committed to reducing incidents of gender-based and sexual violence and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts at


To connect with a case manager or set up an appointment, please contact support@uwo.ca.

Academic Counselling (Science and Basic Medical Sciences)

Appeal Procedures