COURSE OUTLINE

1. **Course**: NEUR 321, How the Brain Works - Fall 2020

   Lecture 01: TR 15:30 - 16:45 - Online

   **Instructor**: Dr. Marzena Kastyak-Ibrahim
   **Email**: marzena.kastyakibrah@ucalgary.ca
   **Phone**: N/A
   **Office**: WORKING OFF CAMPUS
   **Hours**: After class or by appointment.

   Students must use their U of C account for all course correspondence.

   Please allow two business days for the instructor to respond before re-sending your email.

   **Online Delivery Details**:

   This course is being offered online in real-time via scheduled meeting times, you are required to be online at the same time.

   Online lectures are delivered live (via Zoom) during scheduled time (Tue and Thu 3:30 - 4:45 pm). Recordings will be available via D2L (with exception of lectures when technical difficulties would occur).

   Zoom meetings are posted on D2L (Communication -> Zoom) and the password has been sent to your U of C email address.

   Weekly quizzes will take place during Thursday lecture (quiz time window 4:15-4:45 pm).

   Midterm will take place during class time (3:30 - 4:45 pm) on Thursday Oct 15, 2020.

   **Course Site**:

   D2L: NEUR 321 L01-(Fall 2020)-How the Brain Works

   **Note**: Students must use their U of C account for all course correspondence.

2. **Requisites**:

   See section 3.5.C in the Faculty of Science section of the online Calendar.

3. **Grading**:

   The University policy on grading and related matters is described in F.1 and F.2 of the online University Calendar.

   In determining the overall grade in the course the following weights will be used:

<table>
<thead>
<tr>
<th>Component(s)</th>
<th>Weighting %</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-reading quizzes</td>
<td>10</td>
<td>Administered via D2L, due on Tuesdays at 2:00 pm, best 8 out of 10</td>
</tr>
<tr>
<td>Weekly quizzes</td>
<td>32</td>
<td>In class on Thursdays (except Oct 15, 2020) during 16:15-16:45 pm</td>
</tr>
<tr>
<td>Midterm</td>
<td>20</td>
<td>In-class (3:30-4:45 pm), on Oct 15, 2020, covering Chapters 2-6</td>
</tr>
<tr>
<td>Group project</td>
<td>10</td>
<td>Due on Dec 4, 2020 (written assignment)</td>
</tr>
<tr>
<td>Final exam</td>
<td>28</td>
<td>Scheduled by Registrar Office, synchronous (designed for 2h,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>administered in 3h), cumulative</td>
</tr>
</tbody>
</table>

   Each piece of work (reports, assignments, quizzes, midterm exam(s) or final examination) submitted by the student will be assigned a grade. The student's grade for each component listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade.
The conversion between a percentage grade and letter grade is as follows.

<table>
<thead>
<tr>
<th>Minimum % Required</th>
<th>A+</th>
<th>A</th>
<th>A-</th>
<th>B+</th>
<th>B</th>
<th>B-</th>
<th>C+</th>
<th>C</th>
<th>C-</th>
<th>D+</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>95</td>
<td>90</td>
<td>85</td>
<td>80</td>
<td>75</td>
<td>70</td>
<td>65</td>
<td>60</td>
<td>55</td>
<td>50</td>
<td>45</td>
</tr>
</tbody>
</table>

A student's final letter grade will be determined using the percentage to letter grade conversion scale above. The % value is the minimum required for a given letter grade.

This course has a registrar scheduled final exam.

4. **Missed Components Of Term Work:**

   The university has suspended the requirement for students to provide evidence for absences. Please do not attend medical clinics for medical notes or Commissioners for Oaths for statutory declarations.

   In the event that a student legitimately fails to submit any online assessment on time (e.g. due to illness etc...), please contact the course coordinator, or the course instructor if this course does not have a coordinator to arrange for a re-adjustment of a submission date. Absences not reported within 48 hours will not be accommodated. If an excused absence is approved, then the percentage weight of the legitimately missed assignment could be pro-rated among the components of the course.

   **Missed Pre-reading quiz**

   Two lowest grades for Pre-reading quizzes will be dropped. No additional accommodations will be provided.

   **Missed In-class quiz**

   One lowest grade for In-class quizzes will be dropped.

   Students who miss a quiz for a valid reasons should fill-in notify the Course Instructor by submitting the form: NEUR 321 (Fall 2020) Missed In-class Quiz (Folder: Missed course components) to the D2L Dropbox: Missed Quiz within 48h of missing the quiz. The weight of the quiz will be shifted to the final exam, provided that the request has been approved.

   **Missed Midterm**

   Students who miss the Midterm for a valid reasons should fill-in notify the Course Instructor by submitting the form: NEUR 321 (Fall 2020) Missed Midterm (Folder: Missed course components) to the D2L Dropbox: Missed Midterm within 48h of missing the quiz. The weight of the Midterm will be shifted to the final exam, provided that the request has been approved.

5. **Scheduled Out-of-Class Activities:**

   There are no scheduled out of class activities for this course.

6. **Course Materials:**

   Recommended Textbook(s):


   Lectures will be posted on D2L (free of charge).

   In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology:

   - A computer with a supported operating system, as well as the latest security, and malware updates;
   - A current and updated web browser;
   - Webcam/Camera (built-in or external);
   - Microphone and speaker (built-in or external), or headset with microphone;
   - Current antivirus and/or firewall software enabled;
   - Stable internet connection.

   For more information please refer to the UofC ELearning online website.
7. **Examination Policy:**

Your lecture notes and textbook are allowed during D2L weekly In-class quizzes, Midterm and Final examination.

No online resources (with the exception of the course D2L site) are allowed during In-class quizzes, Midterm and Final examination.

Final exam will be scheduled by the Registrar for 3h (the exam will be designed to be completed within 2h) and will be administered via D2L.

Students should aim start the exam on time and must start the exam within 15 min from the time it is released (the start time of the exam will be according to the schedule provided by the Registrar Office).

Additional time will be granted to SAS students, and other accommodation to students will be done on a case-by-case basis.

Academic integrity should guide your actions during the course, including the examinations. For more information, see:

https://www.ucalgary.ca/live-uc-ucalgary-site/sites/default/files/teams/1/academic-integrity.pdf

Instructor will be employing all accessible means to ensure that all the students have equal opportunities and are following the rules of academic integrity.

Students should also read the Calendar, **Section G**, on Examinations.

8. **Approved Mandatory And Optional Course Supplemental Fees:**

There are no mandatory or optional course supplemental fees for this course.

9. **Writing Across The Curriculum Statement:**

For all components of the course, in any written work, the quality of the student's writing (language, spelling, grammar, presentation etc.) can be a factor in the evaluation of the work. See also Section E.2 of the University Calendar.

10. **Human & Living Organism Studies Statements:**

Students will not participate as subjects or researchers in human studies.

See also **Section E.5** of the University Calendar.

**STUDIES IN THE BSc NEUROSCIENCE PROGRAM MAY INVOLVE THE USE OF LIVING AND DEAD ORGANISMS.** Students taking laboratory- and field-based courses in these disciplines can expect involvement with and experimentation on such materials. Students perform dissections on dead or preserved organisms in some courses. In particular courses, students experiment on living organisms, their tissues, cells, or molecules. Sometimes field work requires students to collect a variety of living materials by many methods, including humane trapping.

All work on humans and other animals conforms to the Helsinki Declaration and to the regulations of the Canadian Council on Animal Care. The program strives for the highest ethical standards consistent with stewardship of the environment for organisms whose use is not governed by statutory authority. Individuals contemplating taking courses or majoring in one of the fields of study offered in the program should ensure that they have fully considered these issues before enrolling. Students are advised to discuss any concern they might have with the Undergraduate Program Director of the Department.

Students are expected to be familiar with **Section SC.4.1** of the University Calendar.

11. **Reappraisal Of Grades:**

A student wishing a reappraisal, should first attempt to review the graded work with the Course coordinator/instructor or department offering the course. Students with sufficient academic grounds may request a reappraisal. **Non-academic grounds are not relevant for grade reappraisals.** Students should be aware that the grade being reappraised may be raised, lowered or remain the same. See **Section I.3** of the University Calendar.

a. **Term Work:** The student should present their rationale as effectively and as fully as possible to the Course coordinator/instructor within ten business days of either being notified about the mark, or of the item's return to the class. If the student is not satisfied with the outcome, the student shall submit the Reappraisal of Graded Term work form to the department in which the course is offered within 2 business days of receiving the decision from the instructor. The Department will arrange for a reappraisal of the work within the next ten business days. The reappraisal will only be considered if the student provides a detailed rationale that outlines where and for what reason an error is suspected. See sections **I.1** and **I.2** of the
b. **Final Exam:** The student shall submit the request to Enrolment Services. See Section I.3 of the University Calendar.

12. **Other Important Information For Students:**

a. **Mental Health** The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, Mental Health Services Website) and the Campus Mental Health Strategy website (Mental Health).

b. **SU Wellness Services:** For more information, see www.ucalgary.ca/wellnesscentre or call 403-210-9355.

c. **Sexual Violence:** The Sexual Violence Support Advocate, Carla Bertsch, can provide confidential support and information regarding sexual violence to all members of the university community. Carla can be reached by email (svsa@ucalgary.ca) or phone 403-220-2208. The complete University of Calgary policy on sexual violence can be viewed at (https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf)

d. **Misconduct:** Academic misconduct (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under Section K. Student Misconduct to inform yourself of definitions, processes and penalties. Examples of academic misconduct may include: submitting or presenting work as if it were the student's own work when it is not; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; collaborating in whole or in part without prior agreement of the instructor; borrowing experimental values from others without the instructor's approval; falsification/ fabrication of experimental values in a report. These are only examples.

e. **Academic Accommodation Policy:** Students needing an accommodation because of a disability or medical condition should contact Student Accessibility Services in accordance with the procedure for accommodations for students with disabilities available at procedure-for-accommodations-for-students-with-disabilities.pdf.

Students needing an accommodation in relation to their coursework or to fulfill requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to the Program Director of the Neuroscience Program, Dr. Willem Wildering by email bscndir@ucalgary.ca or phone 403-220-5283. Religious accommodation requests relating to class, test or exam scheduling or absences must be submitted no later than 14 days prior to the date in question. See Section E.4 of the University Calendar.

f. **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). Students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information, see Legal Services website.

g. **Student Union Information:** VP Academic, Phone: 403-220-3913 Email: suvaca@ucalgary.ca. SU Faculty Rep., Phone: 403-220-3913 Email: sciencerep@su.ucalgary.ca. Student Ombudsman, Email: ombuds@ucalgary.ca.

h. **Surveys:** At the University of Calgary, feedback through the Universal Student Ratings of Instruction (USRI) survey and the Faculty of Science Teaching Feedback form provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses. Your responses make a difference - please participate in these surveys.

i. **Copyright of Course Materials:** All course materials (including those posted on the course D2L site, a course website, or used in any teaching activity such as (but not limited to) examinations, quizzes, assignments, laboratory manuals, lecture slides or lecture materials and other course notes) are protected by law. These materials are for the sole use of students registered in this course and must not be redistributed. Sharing these materials with anyone else would be a breach of the terms and conditions governing student access to D2L, as well as a violation of the copyright in these materials, and may be pursued as a case of student academic or non-academic misconduct, in addition to any other remedies available at law.
Tentative Lecture Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Material covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 10, 2020</td>
<td>Introduction</td>
</tr>
<tr>
<td>September 15, 2020</td>
<td>Chapter 2</td>
</tr>
<tr>
<td>September 17, 2020</td>
<td>Chapter 2</td>
</tr>
<tr>
<td>September 22, 2020</td>
<td>Chapter 3</td>
</tr>
<tr>
<td>September 24, 2020</td>
<td>Chapter 4</td>
</tr>
<tr>
<td>September 29, 2020</td>
<td>Chapter 5</td>
</tr>
<tr>
<td>October 1, 2020</td>
<td>Chapter 5</td>
</tr>
<tr>
<td>October 6, 2020</td>
<td>Chapter 6</td>
</tr>
<tr>
<td>October 8, 2020</td>
<td>Chapter 6</td>
</tr>
<tr>
<td>October 13, 2020</td>
<td>Chapter 7</td>
</tr>
<tr>
<td>October 15, 2020</td>
<td>Midterm exam</td>
</tr>
<tr>
<td>October 20, 2020</td>
<td>Chapter 9</td>
</tr>
<tr>
<td>October 22, 2020</td>
<td>Chapter 9</td>
</tr>
<tr>
<td>October 27, 2020</td>
<td>Chapter 10</td>
</tr>
<tr>
<td>October 29, 2020</td>
<td>Chapter 10</td>
</tr>
<tr>
<td>November 3, 2020</td>
<td>Chapter 13</td>
</tr>
<tr>
<td>November 5, 2020</td>
<td>Chapter 13</td>
</tr>
<tr>
<td>November 10, 2020</td>
<td>NO CLASS</td>
</tr>
<tr>
<td>November 12, 2020</td>
<td>NO CLASS</td>
</tr>
<tr>
<td>November 17, 2020</td>
<td>Chapter 14</td>
</tr>
<tr>
<td>November 19, 2020</td>
<td>Chapter 14</td>
</tr>
<tr>
<td>November 24, 2020</td>
<td>Chapter 15</td>
</tr>
<tr>
<td>November 26, 2020</td>
<td>Chapter 15</td>
</tr>
<tr>
<td>December 1, 2020</td>
<td>Chapter 16</td>
</tr>
<tr>
<td>December 3, 2020</td>
<td>Chapter 16</td>
</tr>
<tr>
<td>December 8, 2020</td>
<td>Office hours</td>
</tr>
</tbody>
</table>

Textbook Table of Contents:

Chapter 1  What Are the Origins of Brain and Behavior?
Chapter 2  What Is the Nervous System's Functional Anatomy?
Chapter 3  What Are the Nervous System's Functional Units?
Chapter 4  How Do Neurons Use Electrical Signals to Transmit Information?
Chapter 5  How Do Neurons Communicate and Adapt?
Chapter 6  How Do Drugs and Hormones Influence the Brain and Behavior?
Chapter 7  How Do We Study the Brain’s Structures and Functions?
Chapter 8  How Does the Nervous System Develop and Adapt?
Chapter 9  How Do We Sense, Perceive, and See the World?
Chapter 10 How Do We Hear, Speak, and Make Music?
Chapter 11 How Does the Nervous System Respond to Stimulation and Produce Movement?
Chapter 12 What Causes Emotional and Motivated Behavior?
Chapter 13 Why Do We Sleep and Dream?
Chapter 14 How Do We Learn and Remember?
Chapter 15 How Does the Brain Think?
Chapter 16 What Happens When the Brain Misbehaves?

Electronically Approved - Sep 15 2020 15:12

Department Approval