

Psychology 403/505 “Recovery After Brain Injury” Winter 2021

Location / Time: Wednesdays from 10:00 am – 12:50 pm (synchronous online learning via Zoom on eClass).

Instructors:

Britt Fedor, BSc., BARST
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Cassandra Wilkinson, BSc.
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Virtual office hours are Thursdays from 10:30AM - 11:30AM or by appointment. Please see e-class for link. You are *strongly* encouraged to seek the instructors' opinion and feedback on course work (e.g., presentations). If you have a question, please cc both instructors on your email and include “PSYCO 403/505” in the subject line.

Teaching Assistant:

Anna Kalisvaart, B.Sc.
PhD Student
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Virtual office hours by appointment.

Course Topic: This course reviews basic and clinical research into the consequences of and treatments for ischemic and hemorrhagic stroke, and to a lesser extent other conditions, such as cardiac arrest and brain trauma. Stroke is the leading cause of disability and one of the leading causes of death in Canada. While the Department of Psychology offers this course, it draws heavily from neuroscience, neurology, neuropsychology, physiotherapy, psychiatry, etc.

Course Objectives / Learning Goals:

1. Knowledge and skills relevant to the science discussed in this course.
 - a. Basic knowledge:
 - i. Elementary knowledge of neuroanatomy, neuropathology, and the pathophysiological basis of stroke (e.g., key mechanisms of damage) and related conditions (e.g., trauma).
 - ii. Major behavioral effects of stroke (e.g., neglect, aphasia and weakness).
 - iii. Important factors that affect outcome (e.g., post-stroke depression).
 - iv. Clinical rehabilitation efforts (e.g., physiotherapy, brain stimulation).
 - v. Experimental approaches to understanding brain injury (e.g., rodent models).
 - vi. Experimental approaches to understanding and facilitating recovery (e.g., how environmental enrichment influences the growth of synapses in the brain).
 - b. Methods used in animal and clinical research on brain injury:
 - i. Experimental design (e.g., matched comparisons and randomized controlled trials).
 - ii. Various behavioral, histological, molecular and imaging techniques.
 - iii. Discussion of strengths and weaknesses of these approaches.
 - iv. Expert reviews and meta-analyses.
 - c. Critical thinking skills to evaluate data and conclusions.
 - i. Better understanding of basic ‘statistical’ issues (e.g., correlation vs. causation, reliability and validity, power, and the need for replication).
 - ii. Evaluating the quality of an experimental design (e.g., whether subjects were randomized and whether proper controls were used).
 - iii. Assessing whether ones’ conclusions are justified based upon data (e.g., identifying premature conclusions).
 - d. Values / ethics.
 - i. Better appreciation for those suffering from brain damage (disabilities).

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- ii. Understanding ethical issues surrounding clinical and animal research.
2. Knowledge and skills relevant to a general education.
 - a. Information and technology literacy including literature searches (e.g., PubMed) and use of various web resources in a manner that encourages you to *critically* evaluate data and opinions (e.g., Evidence Based Review of Stroke Rehabilitation).
 - b. Communication skills: group discussions, class participation and oral presentations.
 - c. Career planning and development: material presented in this course relates to careers in psychology, neuroscience, and clinical practice.
3. Knowledge that may guide your life choices.
 - a. An understanding of cardiovascular disease risk factors and activities that limit risk and promote healthy aging.
 - b. An appreciation for the limits of late medical treatments and the value of prevention.

Required Readings: There is no required textbook for this course. Selected PDF readings will be available to download from the University of Alberta library (e-journals), the course eClass page or elsewhere. The course web page will also include sample (representative) evaluative materials (e.g., questions from past exams).

Course Web Page: eClass

Prerequisite: Successful completion of Psychology 275 and Psychology 377 (or equivalent courses) are required. *A minimum grade of B+ is recommended in the psychology 275 and 377 courses.*

Course Structure & Evaluation: Details on lecture topics are provided in the "Lecture Order" document. Our grading method for presentations is provided in the "Presentation Grading Method" file. Requirements vary somewhat for 403 and 505 students, and the graduate students are expected to provide higher quality work (more insightful, better referenced, etc.).

In addition to quizzes (10%), tests (10%) and a final exam (30%), which are required, there are options for completing the remaining 50% of the course work. *It is your responsibility to ensure that those components are completed as detailed below (includes written and oral assignments).* Normally we recommend completing both written and oral components to maximize your learning experience.

Component	Details	Weight
Required Work:		
Tests (Required)	<ul style="list-style-type: none">● February 10th from 10 – 10:30 am, and● March 17th from 10 – 10:30 am.● These short tests (5% each) often include multiple choice and short answer questions, among other types of questions.● Exams will be completed on eClass without the use of a proctoring service (e.g., ExamLock, Smart Exam Monitor).● Exam content is noted on the Lecture Order Document. Practice questions will be provided prior to exams.	10%
Online Quizzes (Required)	<ul style="list-style-type: none">● Intermittently from January 20th – March 31st (see Lecture Order Document).● You are required to independently complete 5 online (eClass) quizzes based upon either an eClass learning module or an assigned reading.● There are 8 brief quizzes and your best 5 marks (2% each) of the 8 are taken.	10%
Final Exam (Required)	<ul style="list-style-type: none">● April 21st from 2 – 4 pm● Deferred exam: May 7th at 10 am – noon.	30%

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	<ul style="list-style-type: none"> ● WARNING: Students must verify this date on BearTracks when the Final Exam Schedule is posted. ● This exam will likely contain multiple choice and short- and long-answer questions. ● Exams will be completed on eClass without the use of a proctoring service (e.g., ExamLock, Smart Exam Monitor). ● Content is based on the entire course including lectures, eClass materials and assigned readings. Some questions may arise from student presentations. ● There is no possibility of re-examination in this course 	
Options:		
Research Grant Proposal*	<ul style="list-style-type: none"> ● A 10-page research proposal (plus 3 pages for references and 2 pages for figures / diagrams) describing and justifying a novel hypothesis (or related hypotheses) and a research plan (experiments and methods) in the stroke field. This must focus on animal research-based work pertaining to plasticity / repair after stroke. Some clinical component (< 25%) within this grant proposal is also acceptable. ● Written proposal is due March 31st. ● In addition, students must give a 20 min PowerPoint presentation (plus time for questions afterwards) on this research proposal on March 31st. ● Undergraduate students may take this option (worth 40%) <i>only</i> with permission from the instructor. This is a more challenging option than other assignments. ● Graduate students must complete this assignment (30%). 	30% - 40%
Experiment Proposal	<ul style="list-style-type: none"> ● An experimental plan (4-pg max. plus 2 pages for references, max. of 1 essay) proposing a major experiment, series of experiments or meta-analysis addressing some topic relevant to brain injury and repair (can be either animal or human research). This takes the form of a planning document (analogous to a study pre-registration). ● Written proposal is due March 31st. ● This option is only available to 403 students, and only for those not completing the research grant proposal. Students considering this option are strongly encouraged to talk to the instructor. 	20%
Essay*	<ul style="list-style-type: none"> ● An essay (4 pg max., and max. of 2 essays, due March 31st) on: a) a substantial story recently covered in the popular media (TV, newspaper, web site, etc.), or b) a review on a topic provided by the instructor (see “Assignment Sign Up Doc”). ● You are not permitted to write on a movie or book. ● The topic must be on brain injury (e.g., stroke, trauma) and it should be written with the course objectives in mind (i.e., a focus on recovery mechanisms is acceptable whereas a discussion on prevention is not). ● For media reports you should discuss the report(s), which you must cite, and the underlying science including publication(s) that lead to the media interest. Be sure to critically evaluate the media reports. ● <i>You must obtain the instructor’s permission for each topic and he will minimize overlap among reports (topics will be noted on the “Assignment Sign Up Doc” posted on eClass). Thus, keep this in mind with respect to when you select your topic (i.e., wait too long and someone else may select your preferred topic).</i> 	20%
Short Reports*	<ul style="list-style-type: none"> ● Each written report (2 pg max., 10% ea.) should briefly summarize and critically evaluate an instructor-assigned research paper on eClass under 	10%

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	<p>“Optional Readings” for the dates of Jan 20th through and including March 31st.</p> <ul style="list-style-type: none"> Students are not allowed to complete more than one paper on any single topic (e.g., depression) or in any one week. Note that there is a max. of 3 short reports per student. Reports are due at the <i>beginning</i> of the class that discusses that topic. 	
Oral Presentations on an Original Publications [#]	<ul style="list-style-type: none"> A 5 min in class PowerPoint presentation that is followed by some questions and/ or comments from fellow students and the instructor. All presentations will be done on one of the Optional Readings for that day. Contact the instructor by e-mail to sign up on a first come - first to select basis. Note that there is a max. of 4 presentations per student. 	5%
Oral Presentation on Relevant Personal Experiences [#]	<ul style="list-style-type: none"> A 10 min (max. 1) talk on a personal experience relevant to this course (e.g., coping with a family member's stroke). This option and topic must be approved by the instructor. All presentations will be done on April 7th (or April 14th if needed). 	5%
Final Oral Presentation [#]	<ul style="list-style-type: none"> A 5 min (max. 1) presentation summarizing your essay (e.g., media report). All presentations will be done on April 7th (or April 14th if needed). Students are strongly encouraged to select this option if they have written the “longer essay”. 	5%
Conversation with the Instructors	<ul style="list-style-type: none"> Yes, you can earn 5% by chatting up the course prof. Schedule a (20 min.) meeting with Britt/Cassandra to discuss course related content (interesting papers in the field, his research, etc.). Marks are awarded based upon course relevance and insight demonstrated. Marks are not awarded for chatting about the weather or your favorite cat video... or for asking questions directly related to the course content (e.g., assigned readings or lecture material). This ‘assignment’ must be done between Feb. 1st and March 31th). This option can only be selected once. 	5%
Bonus Marks:		
In Class Participation	<ul style="list-style-type: none"> Up to 2% bonus on top of your final mark can be awarded for in class participation To get full marks, students are required to make meaningful contributions to discussions during lectures (via voice or the text chat) Participating in >50% of lectures will earn 1%, participating in >80% lectures will earn 2%. Definition of meaningful contribution is up to the discretion of instructors 	2%

* All written reports must adhere to these guidelines: typed in Times New Roman Font (12 pt); 1-inch margins; page numbered; double spaced; provide a title page with student name, your ID and the title of report; and references must be in numbered format (e.g., as used by the journal *Stroke*). A Word document is provided on eClass as a template and you are required to use it. Essays are due at the beginning of class as noted above. There is a 25% penalty per day for late assignments, which is not accepted after it is more than 48 hr late (i.e., you get 0). Note that if you are late with an essay, it is best to e-mail us the essay

[#] Presentations are often done using PowerPoint or available classroom equipment / software. A copy of the presentation must be provided (e.g., by e-mail) to the instructor 24 hr in advance of the presentation (5% penalty if not). It is the student's responsibility to ensure that they can access and

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quickly use alternative files (those not in PowerPoint format or those not provided in advance), and it may affect your grades if you have technical problems (e.g., your video does not work). Alternate presentation formats are often permitted, but first check with the instructor.

In the absence of extreme extenuating conditions (e.g., onset of COVID-19 pandemic), once the syllabus is provided to students, assessments CANNOT be changed.

Grading Scheme: The tentative grading scheme can be found below. Grad students (PSYCO 505) have somewhat different course requirements and are expected to produce higher quality work than students enrolled in PSYCO 403. Grades are unofficial until approved by the Department and/or Faculty offering the course.

PSYCO 403 final grade is tentatively based on your total score (% correct) as follows:

Grade	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	F
Rating	Excellent			Good			Satisfactory			Poor	Min Pass	Fail
Percentage	95-100%	90-94%	85-89%	80-84%	75-79%	70-74%	66-69%	62-65%	58-61%	54-57%	50-53%	<50%

PSYCO 505 final grade is tentatively based on your total score (% correct) as follows:

Grade	A+	A	A-	B+	B	B-	C+	F
Rating	Excellent			Good		Satisfactory		Fail
Percentage	95-100%	90-94%	85-89%	80-84%	76-79%	73-75%	70-72%	<70%

Suggestions for a Successful Course by Being PREPARED.

- Participate in class discussions.
- Review assigned materials before class.
- Early starts on assignments are advised.
- Practice your talks and seek feedback.
- Ask the instructor for advice.
- Research your assignments by going beyond what is discussed in the paper or lecture.
- Enjoy the course by linking material to your personal and professional development.
- Don't come to class tired and unfocused.

Important Notices:

Recordings of Synchronous Activities: Please note that class times for this course will be recorded. Recordings of this course will be used for studying purposes and will be disclosed to other students enrolled in this section of the class. Students have the right to not participate in the recording and students may turn off their cameras and audio prior to recording; they can still participate through text-based chat. It is recommended that students remove all identifiable and personal belongings from the space in which they will be participating. If you are presenting, have questions, etc. and do not want to be in the recording, please email your instructors and we will edit the lecture recordings as necessary.

Recordings will be made available one week before the final exam for use as a study aid and will be accessible through eclass. Recordings will be kept available until the end of term. Please direct any questions about this collection to the instructors of this course.

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Technology Requirements/Recommendations for Remote Learning:

For an optimal online learning experience, please review the University guidelines for [Technology for Remote Learning](#). If a student has any questions or concerns about these requirements/recommendations, it is highly recommended that they contact the instructor at the beginning of term.

Guidelines for Respectful Online Engagement:

Students from many different backgrounds participate in courses at the University of Alberta. Sexist, racist, homophobic comments and other inflammatory remarks are not conducive to learning in our courses, and absolutely are not permitted. All participants are governed by the [Code of Student Behaviour](#). Be mindful when discussions involve controversial topics or issues, and consider the possibility that members of our community have themselves experienced some of these issues and/or very different realities because of these issues. Participate in a respectful and considered manner. Even in anonymous eClass forums, if the Code of Student Behaviour is violated, we will be able to determine which student made the offending post and deal with the situation accordingly.

If you are witness to or the target of abusive or offensive behaviour in any course, please inform your instructor immediately. You may also contact the Psychology Undergraduate/Graduate Advisor, Associate Chair of Undergraduate/Graduate, or Chair.

Student Resources for Remote Learning:

Online learning may be new to you. Check out tips for success and find out more about online learning on the [Campus Life](#) page, and specifically on the [Student Resources for Remote Learning](#) page.

Missing Coursework, Illness, and Extenuating Circumstances: If you miss your presentation, report deadline, or test due to a legitimate excuse (e.g., significant illness), you are expected to promptly (< 48 hr) explain the reason to the instructor and to reschedule the assignment if possible (instructor's decision). If this is not possible, the weight of the missed work will be transferred to the final exam or, at the instructor's discretion an alternative assignment may be imposed. Otherwise, students will receive a grade of 0 if no satisfactory excuse is provided. “A student who cannot write the final examination due to incapacitating illness, severe domestic affliction or other compelling reasons can apply for a deferred final examination. Such an application must be made to the student's Faculty office within 48 hours of the missed examination and must be supported by a Statutory Declaration or other appropriate documentation (Calendar section 23.5.6). Deferred examinations are a privilege and not a right; there is no guarantee that a deferred examination will be granted. Misrepresentation of Facts to gain a deferred examination is a serious breach of the Code of Student Behaviour.” “For an excused absence (for a test or exam) where the cause is religious conviction, a student must contact the instructor within two weeks of the start of classes to request accommodation for the term (including the final exam, when relevant). Instructors may request adequate documentation to substantiate the student request.” Also note that any deferred final exam **will** be different than the scheduled exam. Transferring the weight of missed work to the final exam could result in the student not being approved for a deferred final examination as they may not have completed the required 50% of term work.

Accommodations: Students requiring course accommodation, such as for exams, should make themselves aware of the deadlines and regulations at Student Accessibility Services (SAS; <https://www.ualberta.ca/current-students/accessibility-resources/index.html>). Following their procedures and deadlines is needed for accommodations to be made.

“Policy about course outlines can be found in ' 23.4 of the University *Calendar*.”

Academic Integrity: “The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Code of Student Behaviour (online at

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<http://www.governance.ualberta.ca/en/CodesofConductandResidenceCommunityStandards/CodeofStudentBehaviour.aspx>) and avoid any behaviour that could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University [See University Calendar]. “All forms of dishonesty are unacceptable at the University. Any offence will be reported to the Senior Associate Dean of Science who will determine the disciplinary action to be taken. Cheating, plagiarism and misrepresentation of facts are serious offences. Anyone who engages in these practices will receive at minimum a grade of zero for the exam or paper in question and no opportunity will be given to replace the grade or redistribute the weights. As well, in the Faculty of Science the sanction for cheating on any examination will include a disciplinary failing grade (no exceptions) and senior students should expect a period of suspension or expulsion from the University of Alberta.” Academic offenses will be reported to your Faculty. For instance, using sentences (partial or complete) from the assigned paper, without quotation, in your report is plagiarism. In the past this behavior has resulted in students receiving a grade of 0 in those assignments along with more serious punishments.

Additional Resources:

- Student Success Centre: <https://www.ualberta.ca/current-students/academic-success-centre/index.html>
- Student Accessibility Resources: <https://www.ualberta.ca/current-students/accessibility-resources/index.html>
- Centre for Writers: <http://www.c4w.arts.ualberta.ca/>
- Truth in Education: <https://myualberta.ualberta.ca/stusrv/detail?id=2&b=%5B%7B%22t%22%3A%22Student+Services%22%2C%22lt%22%3A%22Student+Services%22%2C%22p%22%3A%22index%22%2C%22a%22%3A%22%22%7D%5D>
- The "Don't Cheatsheet" is available on the University Governance website at: <http://www.governance.ualberta.ca/> (From the drop down menu click on *Student Appeals* and navigate to the Don't Cheatsheet)
- Evidence Based Review of Stroke Rehabilitation (EBRSR): <http://www.ebrsr.com/>
- University of Alberta eJournals: <https://library.ualberta.ca/ual-journals-search>
- Heart and Stroke Foundation: <http://www.heartandstroke.com/>
- Internet Stroke Center: <http://www.strokecenter.org/>
- Canadian Council on Animal Care: <http://www.ccac.ca/>
- Foundation for Biomedical Research: <http://fbresearch.org>
- COVID-19 Updates: Updates pertaining to university-related activities can be found on the [COVID-19 Information website](#).
- Student Services and Resources: General information about various services, including academic, financial, health and wellness, safety, and career development, can be found on the website for [Current Students](#).
- First Peoples' House: [The First Peoples' House](#) provides an environment of empowerment for First Nations, Métis, and Inuit learners to achieve personal and academic growth.