

WHO, WHEN, WHERE

Instructors: **Steven Barnes** (he/him; Summer Term 1)
Office Hour: Drop-in via Zoom most Tuesdays, and also by appointment.
sjb@psych.ubc.ca

About Steven

I was born in Montreal, Quebec, and spent my teenage years in Toronto, Ontario. I then moved to Vancouver for my degrees at UBC about 25 years ago. I completed three degrees at UBC: A BSc, an MA, and a PhD--all in Behavioural Neuroscience. I then completed two postdoctoral fellowships: One in neurophysiology (University of Bonn) and one in computer programming and interactive art (Simon Fraser University).

My current research interests include: novel online technologies for learning and wellbeing (e.g., tapestry-tool.com, mytyde.ca), self-management strategies for bipolar disorders (e.g., crestbd.ca), science writing, student mental health and wellbeing, and educational neuroscience. Within the field of Behavioural Neuroscience, the three topics that excite me the most are: drugs & addiction, sleep & dreaming, and psychiatric & neurological disorders.

Hagar Goldberg (Summer Term 1)
Office Hour: Drop-in via Zoom most Tuesdays, and also by appointment.
hgoldber@mail.ubc.ca

About Hagar

I grew up in Tel Aviv and completed my BSc in animal science, and both my MSc and PhD in Neuroscience, from the Weizman Institute of Science. Following my passion for multidisciplinary and, in particular, for bridging neuroscience and education, I completed a Postdoctoral Fellowship at UBC in the field of neuroscience and SEL (social & emotional learning).

I am highly interested in social-emotional perception and interactions, and their impact on neuroplasticity, wellbeing, and learning.

In my teaching, I take an educational-neuroscience approach, in which I'm translating neuroscience-based knowledge on learning and development, into applied educational practices, aiming to teach the way the brain learns best.

Teaching Assistants: **Alyssa Ash** (both Terms)
Office Hours: by appointment.
psyc304@psych.ubc.ca

Kelly Hrelja (both Terms)
Office Hours: by appointment.
psyc304@psych.ubc.ca

Brett Hathaway (Term 1 only)
Office Hours: by appointment.
psyc304@psych.ubc.ca

Serene (Tianyou) Qiu (Term 2 only)
Office Hours: by appointment.
psyc304@psych.ubc.ca

Schedule: **Tuesdays & Thursdays, 10-12:30 via Zoom**

Tuesdays: Drop-in Q&A sessions or Exams

Thursdays: Synchronous ('live') sessions (recorded to the best of our ability).

Websites: revel.pearson.com
We will be using the Revel platform that accompanies the course textbook because it has richer content than the text alone and because it provides many self-check questions and quizzes for the text readings.

The course textbook can be purchased online via the Pearson Education website for CAD \$80: <https://console.pearson.com/enrollment/1dfbrj>

Once purchased, follow the same link (unique to this course) and then sign in or create a Pearson Account.

If you need help, here are some Revel student resources:
<https://www.pearsonhighered.com/revel/students/support/>

canvas.ubc.ca
We will be using Canvas for the posting of recordings of synchronous activities (e.g., lectures), for the administration of exams, for discussion boards, and to access Zoom.

Notes:

- In most cases, emails will be answered within 48 hours on weekdays (not on weekends) during normal working hours.
- When you send us an email, the subject line should include the nature of the inquiry (e.g., "PSYC304: Question about drugs").
- If you have content-related question, please go to the dis-

discussion boards on Canvas before writing an email. There might already be an answer there, or you can ask the question of other students in the class. Using the discussion forums will be of greater benefit both to your learning and the learning of others in the class.

- If you do send us an email that is content related, it should contain no more than one question and you should try to explain your current understanding of the content in the email (which will be affirmed or corrected by us).
- Canvas and Revel capture data that can provide information that can be used to improve the quality of teaching and learning; we plan to use analytics data to view overall class progress and review statistics on course content being accessed to support improvements in the course.

PREREQUISITES

There are two prerequisites for this course:

1. You have completed two of: PSYC101, 102, 205, 207, 208, 216, 217.
2. You are in the second year or later of your undergraduate degree or you are in a graduate degree.

(Note that you cannot receive credit for both PSYC304 and PSYC370/371.)

COURSE TEXT

Required: Pinel, J. P. J., & Barnes, S. J. (2021). *Revel for Biopsychology, 11th Edition*. Pearson, ISBN: 9780135685341. From time to time, this text may be supplemented by other readings or videos to facilitate your understanding of the course materials. Please attend class and check the course website to obtain more information about these readings and videos. This will cost you \$80 CAD from Pearson Education: <https://console.pearson.com/enrollment/1dfbrj>

Once you purchase the *Revel for Biopsychology, 11th Edition*, you can optionally purchase a looseleaf paper edition for an additional \$40 that will be shipped to your home.

Note: You are required to purchase the Revel version of *Biopsychology, 11e*, for this course. We will assign homework activities in Revel (see above)--they are worth 10% of your grade.

EVALUATION

We have tried to make the course as flexible as possible. This is especially true of the assessments, as you will read below.

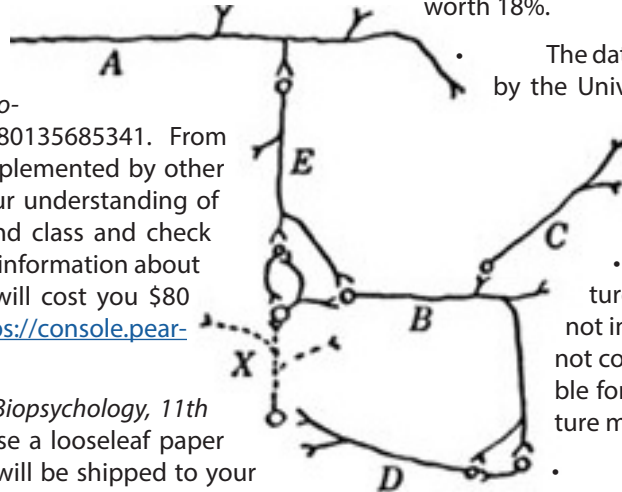
1. Exams (up to 90%):

There will be six exams: 2 will be written during the summer exam periods on the day designated by the Registrar's Office, 2 will be written during Term 1 on Tuesdays, and 2 will be written during Term 2 on Tuesdays. Your lowest exam grade will be dropped from your final grade.

Exam 1 (18%)	May 25
Exam 2 (18%)	Jun 8
Exam 3 (18%)	Jun 21-25 (Exam Period)
Exam 4 (18%)	July 20
Exam 5 (18%)	Aug 3
Exam 6 (18%)	Aug 16-20 (Exam Period)

Notes on the Exams:

- Exams are not cumulative. However, you should be aware that topics build off of each other across the course--this is especially true of the topics covered in the first month of class. Accordingly, it is unwise to omit any course materials from your studies.
- Each exam will be available for a set duration within a 12-hour period that will begin on a Tuesday at 10 am (Pacific time) and end at 10 pm.
- There will be no makeup exams or rewrites. If you miss one exam, that will be counted as your lowest exam grade and not be included in the calculation of your final grade. If you miss two exams, and you receive a concession from us, you will be assigned a makeup assignment that will be worth 18%.



The dates of Exams 3 and 6 are not announced by the University until June and August, respectively. You should not make any plans that will affect your internet access until you learn the dates of Exam 3 and 6.

- There will be topics covered in lectures (recorded and synchronous) that are not in the text and topics in the text that are not covered in lectures. You will be responsible for both. That is, all readings and all lecture materials are examinable.
- Exams will definitely include multiple-choice and short-answer questions, and may include essay questions. Details of the format of each exam will be posted to Canvas prior to the exam date.
- Note that the instruction on all multiple-choice questions will be to "select the single best response."
- If you encounter what you believe to be a faulty question on an exam, answer it to the best of your ability under the circumstances. Following each exam, we will review the results of each exam question to identify any poor questions (e.g., based on the number of people who answered the question correctly)--those questions will not be included in the calculation of your exam grade.

- Once exams have been marked, grades will be posted on Canvas. You will receive an email notification when grades are posted (please ensure the University has your correct email address).
- Any grading disputes (other than calculation errors) must be handled within 2 weeks of exam grades being released.

2. Optional Project (up to 20%):

You may elect to do a project on a topic of your choosing that is related to the course materials. **If you do elect to do a project, the grade you receive on that project will be worth 20% of your final grade, and the grades you receive on each of the exams will be worth the following** (not including the lowest exam grade):

Exam 1: 14%

Exam 2: 14%

Exam 3: 14%

Exam 4: 14%

Exam 5: 14%

Exam 6: 14%

There are three purposes for this course project:

1. To offer you the chance to explore a topic of your choice in greater depth than the lecture and text can offer.
2. To assess your ability to think both critically and creatively.
3. To offer you a chance to explore other ways of expressing your knowledge. That is, to compose a project that is not a traditional written paper.

In previous years, students have created short videos, paintings, computer models, musical compositions, graphic novels, dance sequences, stop-motion animations, and 'tapestries' (see tapestry-tool.com).

If you are ever unsure of whether the topic or format of your project is acceptable, please ask Steven.

You will need to clear your project topic and format with Steven. This can be done informally by email on or before **May 31**. We will provide you with a customized grading scheme for your specific project.

Your project should be one that is done for this course exclusively; handing in work done for another course (past or present) is not acceptable.

You are expected to read a minimum of 5 peer-reviewed journal articles to inform the content and format of your project, noting that your work must be grounded in scientific evidence/theory. When your chosen topic is one that is the subject of ongoing research, you are expected to use sources that are as up to date as possible.

Project Due Dates and Grading. Your grade for the course project is comprised of two items:

Preliminary Draft (optional) Jun 14

Final Project (100%) Aug 10

Please note that late submissions of the final project will result in -10% per day, including weekends.

The purpose of the optional preliminary draft is to allow us to give you some initial feedback on your work.

3. Revel Readings Assignments (up to 10%)

Frequent testing with feedback is linked to improved learning. Frequent test have been shown to increase retention of material, even when low stakes. Accordingly, we will be using the Revel platform that accompanies your textbook. The revel platform offers many quizzes and interactives to help you self-assess your understanding of the text readings.

There will be 14 Revel assignments in this course (one associated with each chapter you are required to read from the text). Your lowest Revel assignment grade will be dropped.

Log into Revel (see registration instructions on page 2 of the syllabus) frequently and check the assignment calendar to ensure you are keeping up with the assignments. You are required to complete Revel assignments before the due date (always a Thursday before 10 am). Late submissions will not be accepted, so plan accordingly.

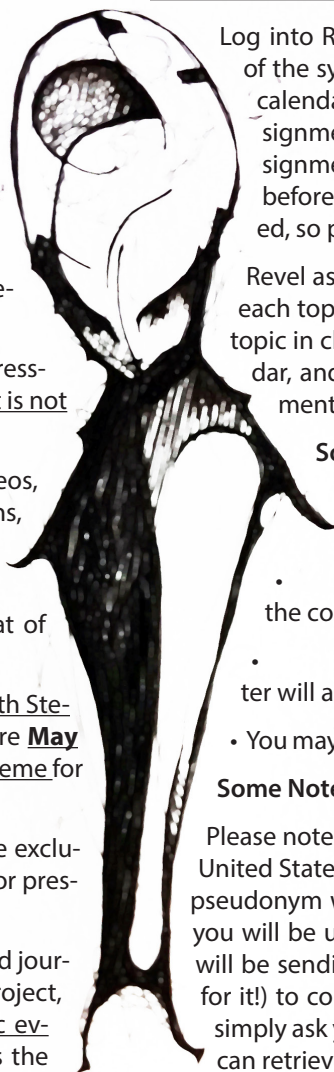
Revel assignments, which are tied to the readings for each topic, will be due before we cover the respective topic in class. Please see your Revel assignment calendar, and the last page of this syllabus, for all assignment due dates.

Some Tips for using Revel:

- Frequent quizzes can aid in your understanding of the text materials.
- Track your performance in Revel throughout the course.
- Highlighting important sections in the chapter will allow you to easily refer back to them later.
- You may want to listen to the audio version of the text.

Some Notes on Privacy and Registration for Revel:

Please note that Revel is hosted on servers located in the United States. Accordingly, you may wish to elect to use a pseudonym when registering for Revel. Because some of you will be using pseudonyms for the Revel platform, we will be sending you a very short survey (keep an eye out for it!) to complete at the end of Term 2--this survey will simply ask you for your name and pseudonym so that we can retrieve your Revel grades.



4. Research Participation (up to 3% bonus):

You have the opportunity to earn up to 3 extra percentage points on your overall final grade by participating in studies regularly conducted by the Psychology Department and coordinated through the human subject pool (HSP). This provides you with the opportunity to observe the research process directly and to contribute to ongoing research activities at UBC. The extra credits are obtained by signing up for the subject pool at ubc-psych.sona-systems.com. If you plan to earn extra credit through research participation, please register in this online system by the end of the first month of classes.

You can find detailed information about research participation guidelines at <https://psych.ubc.ca/undergraduate/opportunities/human-subject-pool/>. Please note that any inquiries about HSP credits should be directed to HSP and/or the experimenters that you worked with, not to us or your TAs.

As an alternative to participating in studies, you may choose to complete library writing projects, in which you read and summarize a research article; each article summary counts as one hour of research participation. More information about this option can be found at <https://psych.ubc.ca/undergraduate/opportunities/human-subject-pool/>.

All of your credits for study participation or the library option will be added to your final course grade, after any scaling that may have been applied. One half of a percentage point is assigned to your final grade for each credit earned (because this is a 6-credit course). **Accordingly, you will need to complete 6 HSP credits to get the full 3% bonus.**

Credits can be recorded and tracked via the HSP website. If you do not correctly assign your credits to this course, you will not receive credit, so please make sure you have done this correctly.

The last day to earn and assign HSP credits for each term is 4 pm Pacific on the final day of classes (i.e., Jun 17 and Aug 12).

BRIEF COURSE SCHEDULE

May 11	Course Introduction and Overview
May 13	Introduction to Biopsychology (Ch 1)
May 18	Drop-in Office Hour
May 20	Genetics and Evolution (Ch 2) and Neuroanatomy (Ch 3)
May 24	Proposal for Optional Project Due (via email: sjb@psych.ubc.ca)
May 25	Exam 1 (Chapters 1-3; and associated lectures)
May 27	Neural Conduction & Transmission (Ch 4)
Jun 1	Drop-in Office Hour
Jun 3	Sleep and Dreaming (Ch 14)

Jun 8	Exam 2 (Chapters 4 and 14; and associated lectures)
Jun 10	Drugs (Ch 15)
Jun 14	Preliminary Draft of Optional Project Due (optional)
Jun 15	Drop-in Office Hour
Jun 17	Psychiatric Disorders (Ch 18)
Jun 22-26 (exam period)	Exam 3 (Chapters 15 and 18; and associated lectures)
Jul 6	Term 2 Introduction and Overview
Jul 8	Visual System (Ch 6)
Jul 13	Drop-in Office Hour
Jul 15	Sensation, Perception, & Attention (Ch 7)
Jul 20	Exam 4 (Chapters 6 and 7; and associated lectures)
Jul 22	Neuroplasticity, Learning & Memory (Ch 9.3, 9.4, Ch 11, NOT including 11.2 and 11.3)
Jul 27	Drop-in Office Hour
Jul 29	Brain Damage & Neuroplasticity (Ch 10)
Aug 3	Exam 5 (Chapters 9 and 11 (assigned sections); and associated lectures)
Aug 5	Lateralization, Language, and the Split Brain (Ch 16)
Aug 10	Drop-in Office Hours; Final Version of Optional Project Due
Aug 12	Emotion, Stress, and Health (Ch 17)
Aug 16-20 (exam period)	Exam 6 (Chapters 16 and 17; and associated lectures)

Notes on the Schedule:

- A detailed schedule can be found on Canvas and on the last page of this syllabus.
- The first month of the course is particularly intense. Please plan accordingly.

WITHDRAWAL DATES

If you wish to withdraw from this course without any record of the course on your transcript, you must do so on or before **May 21**. If you wish to withdraw with a "W" on your transcript, you must do so on or before **Jul 2**.

Credit/D/Fail Grading. This course is eligible for Credit/D/Fail grading. The last day to change between Credit/D/Fail and percentage grading is **May 21**.

LEARNING & WELLNESS RESOURCES

Wellness resources are available on the Canvas page for the course (click the header image for the course to be taken to a list of wellness resources). There are also wellness resources available here: <https://students.ubc.ca/health>.

If you or someone you know is in crisis: <https://students.ubc.ca/health/crisis-support>.

Learning resources are available on this UBC page: <https://students.ubc.ca/enrolment/academic-learning-resources>.

GRADING AND ATTENDANCE

Grading. Your grade for each exam (and your project components, if applicable) will be posted on Canvas. If you wish to inspect your exam, you may do so by meeting with your TA.

In order to reduce grade inflation and maintain equity across course sections, all psychology courses are required to comply with departmental norms for grade distributions. According to departmental norms (during the pandemic only), the mean grade in a 300-level class is 75 for a good class, 73 for an average class, and 71 for a weak class (with a standard deviation of 13). Scaling may be used in order to comply with these norms; grades may be scaled up or down as necessary by us or the department. Grades are not official until they appear on your transcript. You will receive both a percent and a letter grade for this course. At UBC, your course percentage is converted to a letter grade according to the following key:

A+	90-100%	A	85-89%
A-	80-84%	B+	76-79%
B	72-75%	B-	68-71%
C+	64-67%	C	60-63%
C-	55-59%	D	50-54%
F	0-49%		

Because you are earning a degree at a highly reputable post-secondary institution, the criteria for success are high. The Faculty of Arts offers the following guidelines that broadly characterize the kind of work that is generally associated with the particular grade ranges. These characteristics help put the Psychology Department grading policies into perspective. Please note that adequate performance is in the C range.

A Range: Exceptional Performance. Strong evidence of original thinking; good organization in written work; capacity to analyze (i.e., break ideas down) and to synthesize (i.e., bring different ideas together in a coherent way); superior grasp of subject matter with sound critical evaluations; evidence of extensive knowledge base.

B Range: Competent Performance. Evidence of grasp of subject matter; some evidence of critical capacity and analytic ability; reasonable understanding of relevant issues; evidence of familiarity with the literature.

C-D Range: Adequate Performance. Understanding of the subject matter; ability to develop solutions to simple problems in the material; acceptable but uninspired work; not seriously faulty but lacking style and vigor.

F Range: Inadequate Performance. Little or no evidence of understanding of the subject matter; weakness in critical and analytical skills; limited or irrelevant use of the literature.

Attendance. In this course, material that is taught in lectures may be different from or supplement the text material. Moreover, lecture slides are designed to provide a framework for the lecture and any discussions--thus, not everything in the lecture is in the slides.

During your time in this course, if you encounter medical, emotional, or other personal problems that affect your attendance or academic performance, please notify us as soon as possible, as well as your Faculty Academic Advising Office. Please refer to the UBC Calendar for a discussion of academic concession.

The University accommodates students with disabilities who have registered with the Centre for Accessibility (see below). The University also accommodates students whose religious obligations conflict with attendance or scheduled exams. Please let us know in advance, preferably in the first few weeks of class, if you will require any accommodation on these grounds. Other absences (e.g., varsity athletics, family obligations or similar) are not part of University policy and you should not assume they will be accommodated. Please discuss this with me before the withdrawal dates (see above).

Centre for Accessibility. UBC is committed to equal opportunity in education for all students including those with documented physical or learning disabilities. If you believe you fall in this category, please visit the website for the Centre for Accessibility (<https://students.ubc.ca/about-student-services/centre-for-accessibility>) to take the necessary steps to ensure that you have every opportunity that you deserve to excel in your studies.

Early Alert Program. We participate in the Early Alert program, which helps us support students who are facing difficulties that are interfering with their education, their wellness or both. For answers to frequently asked questions regarding the early alert program, please visit blog.students.ubc.ca/earlyalert/information-for-students/students-frequently-asked-questions/.

UNIVERSITY POLICIES

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect

for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions.

Details of the policies and how to access support are available on the [UBC Senate website](#).

OTHER COURSE POLICIES

Office Hours. You should connect with one or your TAs if you would like to discuss textbook content, prerecorded lecture content, and/or study strategies; or, to discuss psychology and neuroscience more generally.

You should consider visiting our office hours if you would like to discuss lecture content (or psychology and neuroscience more generally) or if you have an issue with course performance or progress.

Classroom Conduct. Our online classroom is a place where you should feel safe and respected. It should also be a place that is conducive to learning and intellectual inquiry. Any behaviour on your part that compromises that environment will not be tolerated and you will be asked to leave.

Copyright. All materials of this course (handouts, lecture slides, assessments, readings, etc.) are the intellectual property of the course instructors or licensed to be used in this course by the copyright owner. Redistribution of these materials by any means without permission of the copyright holder(s) constitutes a breach of copyright and may lead to academic discipline.

POINTS TO REMEMBER

- Productive classroom discussion and debate are encouraged.
- Lectures will typically focus on particularly important and/or interesting ideas. You are responsible for all text and lecture materials.
- Please be aware that the first quarter of the course can be especially challenging to those without some background in biology.
- It is worth devoting extra time to the materials in chapters 2-5 of the textbook, as they are foundational to the rest of the course.

ACADEMIC MISCONDUCT

Cheating, plagiarism, and other forms of academic misconduct are very serious concerns of the University and the Department of Psychology. In all cases of suspected academic misconduct, the parties involved will be pursued to the fullest extent dictated by the guidelines of the University. Strong evidence of cheat-

ing or plagiarism may result in a zero credit for the work in question. According to the University Act (section 61), the President of UBC has the right to impose harsher penalties including (but not limited to) a failing grade for the course, suspension from the University, cancellation of scholarships, or a notation added to the student's transcript.

All graded work in this course, unless otherwise specified, is to be original work done independently by individuals. If you have any questions as to whether what you are doing is even a borderline case of academic misconduct, please consult with me. For details on pertinent University policies and procedures, please see Chapter 5 in the UBC Calendar (students.ubc.ca/calendar) and read the University's Policy 69 (available at universitycounsel.ubc.ca/policies/policy69.html).

DETAILED SCHEDULE

Dates	Topic(s)	Assigned Readings (Chapters #s from Pinel & Barnes)	Important Deadlines and Due Dates (Times are in Pacific Time)
Week 1 (May 10-16)	Introductions, Course Syllabus, and Course Organization Introduction to Biopsychology	Course Syllabus Chapter 1	
Week 2 (May 17-23)	Genetics & Evolution Neuroanatomy	Chapters 2 & 3; article by Hustvedt (2013)	<ul style="list-style-type: none"> • May 21: Last day to withdraw (no 'W') • May 22 11:59 pm: Revel Assignments Chapters 1-3 due
Week 3 (May 24-30)	Neurophysiology Research Methods	Chapter 4	<ul style="list-style-type: none"> • May 25 10 am - 10 pm: Exam 1 (Chapters 1-3, Hustvedt (2013), and associated lectures) • May 27 9:59 am: Revel Assignment Chapters 4 due
Week 4 (May 31-Jun 6)	Sleep & Dreaming	Chapter 14	<ul style="list-style-type: none"> • May 31: Proposal for Optional Project (via email: sjb@psych.ubc.ca) • Jun 3 9:59 am: Revel Assignment Chapter 14 due
Week 5 (Jun 7-13)	Drugs & Addiction	Chapter 15	<ul style="list-style-type: none"> • Jun 8 10 am - 10 pm: Exam 2 (Chapters 4 and 14, and associated lectures) • Jun 10 9:59 am: Revel Assignment Chapter 15 due
Week 6 (Jun 14-17)	Psychiatric Disorders	Chapter 18	<ul style="list-style-type: none"> • Jun 14: Preliminary Draft Optional Project (optional: not graded) • Jun 17 9:59 am: Revel Assignment Chapter 18 due
Summer Term 1 Exam Period (Jun 21-25)	Exam 3 (Chapters 15 and 18; 12-hour window; date and start time to be announced by UBC in early June)		
Week 7 (Jul 5-11)	Visual System	Chapter 6	
Week 8 (Jul 12-18)	Other Sensory Systems, Perception and Attention	Chapter 7	<ul style="list-style-type: none"> • July 15 9:59 am: Revel Assignments Chapters 6 & 7 due
Week 9 (Jul 19-25)	Neuroplasticity, Learning, and Memory	Chapter 9, sections 9.3 and 9.4 Chapter 11, except sections 11.2 and 11.3	<ul style="list-style-type: none"> • July 20 10 am - 10 pm: Exam 4 (Chapters 6, 7, and associated lectures) • July 22 9:59 am: Revel Assignment Chapters 9 & 11 (assigned sections) due
Week 10 (Jul 26-Aug 1)	Brain Damage & Neuroplasticity	Chapter 10	<ul style="list-style-type: none"> • July 29 9:59 am: Revel Assignment Chapter 10 due
Week 11 (Aug 2-8)	Lateralization, Language, and the Split Brain	Chapter 16	<ul style="list-style-type: none"> • Aug 3 10 am - 10 pm: Exam 5 (Chapters 9 & 11 (assigned sections), and associated lectures) • Aug 5 9:59 am: Revel Assignment Chapter 16 due
Week 12 (Aug 9-12)	Emotion, Stress, and Health	Chapter 17	<ul style="list-style-type: none"> • Aug 10: Final Version Optional Project • Aug 12 9:59 am: Revel Assignment Chapter 17 due
Summer Term 2 Exam Period (Aug 16-20)	Exam 6 (Chapters 16, 17, and associated lectures; 12-hour window; date and start time to be announced by UBC in late July).		

Last Modified: May 16, 2021