This course examines the relationship between brain and behaviour. The first part of the course examines topics relevant to brain plasticity, including neurodevelopment, brain damage and learning and memory; followed by a section on the biopsychology of motivation that covers the neural mechanisms of eating, addiction, sexual behaviour and sleep. The final section deals with disorders of cognition and emotion, including stress and psychiatric disorders.

Psychology 370 is a course designed to continue your exploration of the field of Biopsychology. It primarily focuses on the underlying neural mechanisms of some of the most interesting and complex human behaviours. From how the brain develops, to our basic motivations, to how catastrophically the brain can fail us, this course delves into many different aspects of brain and behaviour.

University Operating Dates

Sept 1
Tuition due

Sept 6
Classes start

Sept 19
Last day to add courses
Last day to drop courses without financial penalty

Nov 2
Last day to change exam centre
Last day to submit exam accommodation requests (If applicable)
Last day to drop without academic penalty

Nov 30
Classes end

Dec 5-20
Exam period

Learning Outcomes

- Build upon the key principles of biopsychology presented in PSYC 271, with a focus on higher cognitive processing.
- Gain an understanding of the complexity of brain and behaviour interactions and how both nature and nurture play important roles.
- Learn to critically evaluate new research in the field of biopsychology.
Course Materials

Textbook

Available from the Queen's Campus Bookstore:

- *Biopsychology*, 10th Edition, by John P.J. Pinel, ISBN 9780134567730. That is for the stand alone access code that includes REVEL and eText. As per Pearson's digital first campaign, there will be no physical copies in the bookstore. Students can buy a looseleaf version directly from Pearson when they register their access code.

I often have students asking whether the 9th edition or the 8th edition of the textbook will be okay to use. There is a lot of new research in this latest edition, as well as the REVEL multimedia, so it is really up to individual students whether they choose to use an older version, knowing they will be missing out on some information that could be tested on the midterm or final exam. Some students have also asked about using the 10th edition without REVEL access. Again, I think it is beneficial to have access to the multimedia and quizzes but it is up to the individual student.

This course uses a Pearson digital product which contains resources used throughout the semester. The required link below is unique to this course. Here is how to register:

Here's how to access the REVEL materials:

1. Go to: [https://console.pearson.com/enrollment/bj9867](https://console.pearson.com/enrollment/bj9867)

2. Sign in to your Pearson Account or create one. If you already had access to REVEL (from PSYC 271) when you go to the new REVEL invitation link for PSYC370, you will simply be added to the new REVEL course without being prompted for another access code as long as you use the same username and password as you did for PSYC271.

3. Follow the onscreen instructions to redeem your access code. Choose your course under 'My Courses' and choose an access option. It is recommended that you purchase an access code from your campus bookstore for redemption here. Queen's Campus Bookstore is a non-profit organization, and provides the best value to students. Purchasing instant access in REVEL may result in extra fees associated with currency exchange. There is also a free trial if you are waiting for financial aid.

What you should know:

- Bookmark [https://console.pearson.com](https://console.pearson.com) to easily access your materials.
- Pearson recommends using the latest version of Chrome, Firefox, or Safari with this digital product.
- Contact your instructor if you lose the invite link.

One of the important changes to this newest edition of the textbook is that embedded within the text are a number of videos and simulations. So, as you are reading through a particular section in the physical copy of the text, you may come across a video that will need be accessed through REVEL. If you are using the online text, then you are already in REVEL and can just click on the video. Please note, you will need to make sure pop-ups are allowed in order for the multimedia to work properly.

If you have problems accessing REVEL or trouble viewing the videos/simulations on the site, please contact the REVEL website administrators directly through the help button, rather than
emailing myself or the TAs. They have the ability to address your issues much better than we do, and so we will always redirect your questions back to them.

**REVEL Chapter Quizzes**

REVEL includes a number of chapter quizzes which can be used as a study tool and provide practice with multiple-choice questions. Please note, however, that those multiple-choice quizzes may be easier than those on the Midterm, and only have 4 choices rather than 5 choices. To access the quizzes, they need to be assigned for the course and given a due date. So a series of "assignments" have been set up for Chapters 1-18 with one chapter to be due each day in September 2019. The material is available immediately and will remain available for a year (in case any students need to write a make-up exam after the course is over). PLEASE NOTE: these assignments have been created to allow access to all the activities and quizzes, they are NOT in fact real assignments that will be included in your final grade. They are available for students to use as study tools and to practice writing MC exams, but are not a required component of the course.

**Third Party Policy**

This course makes use of [REVEL](http://www.pearsoncanada.ca/pearson-canada-at-a-glance/legal/privacy-statement) for some activities. Be aware that by logging into the site, you will be leaving onQ, and accessing the REVEL website. Your independent use of that site, beyond what is required for the course (for example, purchasing the company's products), is subject to Pearson Education's terms of use and privacy policy. You are encouraged to review these documents, using the link(s) below, before using the site.

**Course Timeline**

**MODULE 1**

Sep 6 - 16

**MATERIAL**

**Module 1: Development of the Nervous System**

**ASSESSMENTS AND ACTIVITIES**

**MODULE 2**

Sep 18 - Sep 27

**MATERIAL**

**Module 2: Brain Damage**
ASSESSMENTS AND ACTIVITIES

Course Icebreaker

- Due Sep 24 at 2:00 pm

MODULE 3

Sep 28 - Oct 8

MATERIAL

Module 3: Learning, Memory, and Amnesia

ASSESSMENTS AND ACTIVITIES

MODULE 4

Oct 9-Oct 15

MATERIAL

Module 4: Hunger, Eating, and Health

ASSESSMENTS AND ACTIVITIES

Midterm

- Opens Oct 11 at 2:00 pm
- Closes Oct 12 at 2:00 pm

MODULE 5

Oct 16 - Oct 26

Midterm Break

Oct 25 - Oct 28

MATERIAL

Module 5: Drug Addiction and the Brain's Reward Circuits
ASSESSMENTS AND ACTIVITIES

MODULE 6

Oct 27 - Nov 1

MATERIAL

Module 6: Hormones and Sex

ASSESSMENTS AND ACTIVITIES

Debate Forum Assignment

- Original contribution due Oct 29 at 2:00 pm

MODULE 7

Nov 2 - Nov 9

MATERIAL

Module 7: Sleep, Dreaming, and Circadian Rhythms

ASSESSMENTS AND ACTIVITIES

Debate Forum Assignment

- Comments (minimum of 3) due Nov 2 at 2:00 pm
- Closes Nov 5 at 2:00 pm

Individual Report Assignment

- Due Nov 9 at 2:00 pm

MODULE 8

Nov 10 - Nov 20

MATERIAL

Module 8: Biopsychology of Emotion, Stress, and Health
ASSESSMENTS AND ACTIVITIES

MODULE 9

Nov 21 - Nov 30

MATERIAL

Module 9: Biopsychology of Psychiatric Disorders

ASSESSMENTS AND ACTIVITIES

Essay Assignment

• Due Nov 26 by 2:00 pm

Final Exam will be held during the examination period: Dec 5-20, 2018

Suggested Time Commitment

To complete the readings, assignments, and course activities, students can expect to spend, on average, about 12 - 18 hours per week on the course.

Weighting of Assessments

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Icebreaker</td>
<td>2.5%</td>
</tr>
<tr>
<td>Midterm</td>
<td>15%</td>
</tr>
<tr>
<td>Group Debate Forum</td>
<td>20%</td>
</tr>
<tr>
<td>Essay</td>
<td>12.5%</td>
</tr>
<tr>
<td>Final Proctored Exam</td>
<td>50%</td>
</tr>
</tbody>
</table>

Calculator Policy

Calculators acceptable for use during quizzes, tests and examinations are intended to support the basic calculating functions required by most Arts and Science courses. For this purpose, the use of the Casio 991 series calculator is permitted and is the only approved calculator for Arts and Science students. This
inexpensive calculator sells for around $25 at the Queen's Campus Bookstore, Staples and other popular suppliers of school and office supplies.

Assessments and Activities Description

Course Icebreaker

To start off the course, all students will be required to submit an answer to an Icebreaker question. It will be only worth 2.5% of the total grade and based on participation/submission only. This assignment is designed both for you to think about biopsychology as a discipline and for the marking team to get to know you. More details on the icebreaker can be accessed through the Timeline or the link below.

Course Icebreaker Forum

Midterm

The second evaluation for the course will be an online multiple choice midterm. It will consist of 30 questions and be worth 15% of the final grade. The midterm will cover Modules 1,2 and 3. Further details on the midterm can be accessed through the Timeline or the link below.

Midterm Information

Group Debate Forum

Each student will be assigned to either a “FOR” or “AGAINST” position and will participate in a Group Debate based on the information in Module 5. This debate assignment consists of 3 different parts: uploading an original post onto a discussion forum, reading other group members’ posts, posting comments on the forum and then submitting an individual final paper. This will hopefully result in some lively discussion/debate. In total, this group project will be worth 20% of your final grade (5% for the original post, 5% for the comments and 10% for the final paper). For more details on this Group Debate Assignment, please look under the Timeline or the link below.

Group Debate Description

Essay Assignment

Students must also complete one written essay assignment. The assignment consists of 1 long-answer/essay question from Module 8 and it is worth 12.5% of your final grade. For more details on this Essay Assignment, please look under the Timeline or the link below.

Essay Assignment Description

Final Exam

The 3-hour final exam will be written during the Exam Period (see Timeline). It will consist of 100 Multiple Choice Questions, covering the entire course and is worth 50% of your final grade. For more details on the Final Exam, please look under the Timeline or the link below.

Final Proctored Exam

Once the exam schedule has been finalized the exam date will be posted on your SOLUS account. Students living in the Kingston area will write their final exam on Queen’s campus. Students writing off campus will receive an email to their Queen’s email account with full details of date/time/location of
their exam. Please note: off campus exams will be held on the same day as Kingston exams, but the start time may vary slightly due to the requirements of the off-campus exam centre.

When you registered for the course, you indicated the exam centre location. If you do not remember the exam location you chose, or if you wish to change your exam location, please email: asc.online@queensu.ca or call 613-533-3322. The deadline for changing your exam centre can be found on the Queen's Arts & Science Online website. You must request the change prior to this deadline or you will be subject to a non-refundable administrative fee of $100.00 per exam.

Location and Timing of Final Examinations

As noted in Academic Regulation 8.2.1, “the final examination in any class offered in a term or session (including Summer Term) must be written on the campus on which it was taken, at the end of the appropriate term or session at the time scheduled by the Examinations Office.” The exam period is listed in the key dates prior to the start of the academic year in the Faculty of Arts and Science Academic Calendar and on the Office of the University Registrar’s webpage. A detailed exam schedule for the Fall Term is posted before the Thanksgiving holiday; for the Winter Term it is posted the Friday before Reading Week, and for the Summer Term the window of dates is noted on the Arts and Science Online syllabus prior to the start of the course. Students should delay finalizing any travel plans until after the examination schedule has been posted. Exams will not be moved or deferred to accommodate employment, travel/holiday plans or flight reservations.

All special needs students should contact ASO, immediately following registration to inform them of any special accommodations which may be required for proctored exams. For further information regarding exams, see: http://www.queensu.ca/artsci_online/e-learning/completing-your-course

Final Exam Information

PLEASE NOTE: You must PASS the final exam in order to pass the course.

How to Approach the Material

PLEASE NOTE: In order to schedule the assessments evenly across the term, the chapters of the textbook will not be covered in sequential order. Please see the Course Timeline for more details.

The first thing you should do is watch the Welcome Video! It provides an overview of the course and introduces the topics/modules we will be covering in Brain and Behaviour.

For each Module, there are a number of different sources of information to hopefully give you a strong understanding of the topic. You should first open the narrated Powerpoint presentation which provides an overview of the topic, the learning outcomes as well as some of the interesting research that will be presented. It is basically what I would say to an in-house class, on the first day of covering a new topic.

You should then read the associated textbook chapter.

Next would be the Module Course Notes which provide extra information or a different way of explaining some of the material. The Course Notes are an important feature of your online course, but for PSYC 370 are quite brief. Especially for those students who took PSYC 271 with me, these notes are quite different! Basically, they introduce the topic, detail the objectives, attempt to place the topic in
the larger research area and highlight some interesting research in the area that is not covered in the textbook.

Also, for each Module there are videos, demonstrations and exercises from the online textbook (REVEL) and other websites. These are all designed to augment the information in the textbook and course notes. Sometimes seeing a principle in action is much easier to understand than reading a few paragraphs on it (i.e. how movement in the cochlea allows us to hear).

Current journal articles – these can be accessed through e-reserves through the Module Notes or Course Readings at the top of the Homepage. For examination purposes, I will not be asking specific details about these experiments but you should know the hypothesis, general experimental design and conclusions.

By using the powerpoint presentations, textbook, course notes and the multimedia, I hope it is easier to understand the (sometimes) complicated topics within Biopsychology,

As this is a third-year course, you are expected to bring with you a certain level of knowledge about the brain and its behaviour. You may choose to review some basic neuroanatomy and neurophysiology (found in Chapters 3 and 4 of the textbook) before starting to work on the course material.

Throughout the course, as well as the textbook, four major themes are repeated and should be kept in mind when studying the material.

- **Thinking creatively** or thinking in productive, unconventional ways is the cornerstone of science and there are many research examples of this principle in Biopsychology.
- Much of what we have learned about the brain has come from various patient populations, so this course also has strong **clinical implications** that highlight the interplay between brain dysfunction and biopsychology.
- There is also an important **evolutionary perspective** that must be considered in biopsychological research, especially with comparative studies.
- Much of the research covered in Psychology 370 is influenced by principles of **neuroplasticity**: that the brain is a ‘plastic’ organ that grows and responds to an individual’s genes and environment.

**Grading**

All components of this course will receive numerical percentage marks. The final grade you receive for the course will be derived by converting your numerical course average to a letter grade according to Queen’s Official Grade Conversion Scale:

Queen’s Official Grade Conversion Scale

<table>
<thead>
<tr>
<th>Grade</th>
<th>Numerical Course Average (Range)</th>
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<tbody>
<tr>
<td>A+</td>
<td>90-100</td>
</tr>
<tr>
<td>Grade</td>
<td>Percentage</td>
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<td>------------</td>
</tr>
<tr>
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<td>77-79</td>
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<tr>
<td>B</td>
<td>73-76</td>
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<td>B-</td>
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<tr>
<td>C+</td>
<td>67-69</td>
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<td>C</td>
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<td>50-52</td>
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<td>F</td>
<td>49 and below</td>
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**Contacting the Teaching Team**

The teaching team contact information is located on the Homepage of the course (see “Teaching Team”).

For general questions about the course, please post to the Course Questions Forum, (located under Help in the navigation bar). Feel free to help answer your peers’ questions on this forum. Most questions are answered within 24 hours. Please note that this forum is for constructive questions only, it is not a forum for complaints about the course or teaching team. If posts are deemed inappropriate, they will be removed.

Please use your Queen’s email for inquiries that are more personal in nature, or for issues such as academic accommodations or marking. If you need to have a more detailed conversation, please contact your instructor.

**Course Feedback**

At various points during the course, students may be asked to take part in a variety of feedback activities (such as questionnaires and exit tickets).
This feedback enables the team to make any adjustments necessary to improve the online learning environment. Additional student feedback will be sought throughout the course. All surveys are anonymous, and directly related to activities, assessments, and other course material.

Netiquette

In any course you often communicate with your peers and teaching team through electronic communication. You are expected to use the utmost respect in your dealings with your colleagues or when participating in activities, discussions and online communication.

Here is a list of netiquette guidelines. Please read them carefully and use them to guide your communication in this course and beyond.

1. Make a personal commitment to learn about, understand, and support your peers.
2. Assume the best of others and expect the best of them.
3. Acknowledge the impact of oppression on the lives of other people and make sure your writing is respectful and inclusive.
4. Recognize and value the experiences, abilities, and knowledge each person brings.
5. Pay close attention to what your peers write before you respond. Think through and re-read your writings before you post or send them to others.
6. It’s ok to disagree with ideas, but do not make personal attacks.
7. Be open to be challenged or confronted on your ideas and challenge others with the intent of facilitating growth. Do not demean or embarrass others.
8. Encourage others to develop and share their ideas.

Queen’s Email

The university communicates with students via Queen’s email. Please check your email regularly to ensure you do not miss important information related to your course.

Copyright

The material on this website is copyrighted and is for the sole use of students registered in PSYC 370. The material on this website may be downloaded for a registered student’s personal use, but shall not be distributed or disseminated to anyone other than students registered in PYSC 370. Failure to abide by these conditions is a breach of copyright, and may also constitute a breach of academic integrity under the University Senate’s Academic Integrity Policy Statement.

Accessibility/Accommodations
Queen's University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities.

If you are a student with a disability and think you may require accommodations, you are strongly encouraged to contact the Queen's Student Accessibility Services (QSAS) as early as possible. For more information, including important deadlines, please visit the QSAS website.

Students with course accommodations should contact ASO immediately following registration to inform them of any accommodations to their timed assessments and/or final exam(s).

**Academic Considerations for Students in Extenuating Circumstances**

Queen's University is committed to providing academic consideration to students experiencing extenuating circumstances that are beyond their control and are interfering with their ability to complete academic requirements related to a course for a short period of time, not to exceed three months. Students receiving academic consideration must meet all essential requirements of a course. The Senate Policy on Academic Consideration for Students in Extenuating Circumstances was approved at Senate in April, 2017. Each Faculty has developed a protocol to provide a consistent and equitable approach in dealing with requests for academic consideration for students facing extenuating circumstances. Arts and Science undergraduate students can find the Faculty of Arts and Science protocol and the portal where a request can be submitted at: [http://www.queensu.ca/artsci/accommodations](http://www.queensu.ca/artsci/accommodations). Students in other Faculties and Schools who are enrolled in this course should refer to the protocol for their home Faculty.

If you need to request academic consideration for this course, you will be required to provide the name and email address of the instructor/coordinator. Please use the information provided in the Teaching Team widget on the course homepage.

**Academic Integrity**

Queen's students, faculty, administrators and staff all have responsibilities for supporting and upholding the fundamental values of academic integrity. Academic integrity is constituted by the five core fundamental values of honesty, trust, fairness, respect and responsibility (see [www.academicintegrity.org](http://www.academicintegrity.org)) and by the quality of courage. These values and qualities are central to the building, nurturing and sustaining of an academic community in which all members of the community will thrive. Adherence to the values expressed through academic integrity forms a foundation for the "freedom of inquiry and exchange of ideas" essential to the intellectual life of the University.

Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments conform to the principles of academic integrity. Information on academic integrity is available in the Arts and Science Calendar (see Academic Regulation 1), on the Arts and Science website, and from the instructor of this course.

Departures from academic integrity include, but are not limited to, plagiarism, use of unauthorized materials, facilitation, forgery and falsification. Actions which contravene the regulation on academic
integrity carry sanctions that can range from a warning, to loss of grades on an assignment, to failure of a course, to requirement to withdraw from the university.

**Computer Requirements**

**Microsoft Windows Client**
Vista/Windows 7/Windows 8  
Intel Core 2 Duo processor  
4 GB RAM  
Soundcard with speakers and microphone or preferably a headset  
Webcam

**Mac Client**
OS X 10.8 or higher  
Intel i5 processor  
4 GB RAM  
Internal, USB or external iSight microphone or preferably a headset  
Webcam

**Supported Browsers**
Chrome (latest version)  
Firefox (latest version)  
Safari (latest version on 64-bit Intel processors only)

**Internet Connection**
Wired high speed access: Cable or better  
(wifi is not recommended)

Java

Latest version

Media Player

Flash (latest version)

Adobe Reader

Latest Version

**Students Studying or Travelling Abroad**

If you plan to travel, we strongly recommend that you confirm Internet availability in your host country prior to departure. In the past, students in other countries have been blocked from accessing certain websites relevant to their courses, as well as onQ. It is the responsibility of all students to book travel
around course work, as we cannot change the format or timing on assessments or assignments as a result of travel plans.