**Time:** Monday & Thursday, 11:30am – 12:50pm  
**Room:** HSD A270  
**Website:** CourseSpaces

**Instructor:** Prof. Adam Krawitz  
**Email:** akrawitz@uvic.ca  
**Phone:** 250-721-7551  
**Office:** Cornett A251  
**Office Hours:** On CourseSpaces

**Course Description**
This is an advanced undergraduate seminar on the cognitive neuroscience of decision making. We will learn about research on the mental and neural processes and systems that humans use to make decisions. As an upper-level seminar, students will be expected to take an active role in the course and engage with the material.

**Course Goals**
My primary goals for this course are for you to:
- Learn about the cognitive neuroscience of decision making;
- Gain experience reading and presenting peer-reviewed research on this topic;
- Engage in academic discussions about this topic;
- Explore how this topic relates to your life and your interests.

**Respect for Diversity**
I intend that students from all backgrounds and perspectives be well-served by this course, that students’ learning needs be addressed both in and out of class, and that students’ diversity be viewed as a resource, strength, and benefit. I intend to present materials and activities that are respectful of diversity, including gender, sexuality, disability, age, socio-economic status, ethnicity, race, and culture. Please suggest ways to improve the effectiveness of this course for you and your fellow students. In addition, if any of our class meetings conflict with your religious events, please let me know so that we can make arrangements for you.

**Sensitivity of Course Material**
We each bring our own life experiences to class and I encourage you to share in class as it relates to our topic. Occasionally, you may find the material we cover to be sensitive and particularly relevant to your life experience. I recognize that these experiences may be delicate and highly personal. If anyone in the class chooses to share personal material, I ask that, as a class and as individuals, we are respectful of the sensitive nature of this information and act accordingly.

**Prerequisites and Registration**
The prerequisites for this course are: PSYC 300A; and two of 351A, 351B, and 351C; or permission of the department. A pre- or co-requisite is 300B; or permission of the department.

Students are responsible for checking their own registration status. Students will not be added to the course after the Add Deadline on September 22. Students may not be automatically dropped for non-attendance, so students deciding to drop the course must do so themselves. The Drop Deadline with 100% fee reduction is September 19, with 50% fee reduction is October 10, and without penalty of failure is October 31. Refer to the UVic Calendar for further dates: [http://web.uvic.ca/calendar/general/dates.html](http://web.uvic.ca/calendar/general/dates.html)

**Required Book:** Redish, A. D. (2010). *The Mind within the Brain: How We Make Decisions and How Those Decisions Go Wrong*. New York: Oxford University Press. **For sale at the UVic Bookstore and online.**

All other reading materials will be available as PDFs on CourseSpaces or through the library.
Grades
Your final letter grade in the course will be based on your total percent score according to the standardized UVic grading scale. Final grades that end with a decimal point of 0.5 or above will be rounded to the next higher whole number, and grades that end with a decimal point below 0.5 will be rounded to the next lower whole number. The minimum percentage necessary for each grade is as follows:

<table>
<thead>
<tr>
<th>Letter grade:</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>D</th>
</tr>
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<tbody>
<tr>
<td>Minimum %</td>
<td>90</td>
<td>85</td>
<td>80</td>
<td>77</td>
<td>73</td>
<td>70</td>
<td>65</td>
<td>60</td>
<td>50</td>
</tr>
</tbody>
</table>

Evaluation
Your grade will be based on the following items:

<table>
<thead>
<tr>
<th>Item</th>
<th>Date</th>
<th>% of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>CourseSpaces Forum posts</td>
<td>Mon., Sep. 11 – Thurs., Nov. 9</td>
<td>15</td>
</tr>
<tr>
<td>Seminar participation</td>
<td>throughout</td>
<td>20</td>
</tr>
<tr>
<td>Seminar leadership</td>
<td>Mon., Sep. 6 – Thurs., Nov. 9</td>
<td>15</td>
</tr>
<tr>
<td>Written exam</td>
<td>Thurs., Nov. 16</td>
<td>20</td>
</tr>
<tr>
<td>Research proposal</td>
<td>Thurs., Oct. 26</td>
<td>5</td>
</tr>
<tr>
<td>Research presentation</td>
<td>Thurs., Nov. 23 – Thurs., Nov. 30</td>
<td>5</td>
</tr>
<tr>
<td>Research paper</td>
<td>Fri., Dec. 1</td>
<td>20</td>
</tr>
</tbody>
</table>

CourseSpaces Forum posts (15%): For each class with assigned readings (classes 2 through 18), you are to post a reaction to the readings on the CourseSpaces Forum, **by 6pm the evening before the class. (One exception: You don’t need to post a reaction for the class you are in charge of presenting.)** Your reaction might be a question, a criticism, or a link between a reading and material from an earlier class or another source, experience, etc... You should aim to make these posts short and sweet – a few sentences will often be enough. The goal is to make a substantive contribution. The grade will be based on the content, not the grammar and spelling, as long as they are not an impediment to comprehension. Each post will receive either a 0 (essentially nothing), 1 (something minimal or lacking an independent contribution), or 2 (a substantive contribution). In addition to posting your own reaction, and reading the other students’ posts before class, I encourage you to reply to one another’s posts so as to develop a discussion about the material. I will consider these additional posts as contributing to your seminar participation.

Seminar participation (20%): Participation in class and active engagement with the material are critical to a successful seminar course. We will all learn more if we ask questions, make comments, participate in group activities, and generally contribute in a positive way to the learning environment. I hope that the Forum posts will provide a jumping off point for discussion – don’t hesitate to bring up your Forum post in class if it isn’t being addressed.

Seminar leadership (15%): Following the initial classes, which Prof. Krawitz will lead, each of you will be asked to serve as leader of a class (classes 6 through 18) either alone or with a partner. The role of class leader is three-fold:

1. **Your first task is to lead the class through the reading(s).** Talking through the figures in a paper is often a useful way to discuss the critical features. Incorporating outside material or the article’s supplemental material may also be helpful. In addition, depending on the particular paper, it may be useful/helpful/fun to have the class participate in an activity in order to better understand the task or phenomenon being studied. You may also incorporate the use of media into your presentation or use other relevant tools to explain concepts.

2. **Your second task is to facilitate discussion** of important issues that you have identified in the readings, or that other students raised in their CourseSpaces posts. This may involve any number of strategies such as asking the class to respond to one or more of the submitted questions, asking students to generate a list of items, splitting the class in half to argue opposing positions, or dividing into sub-groups to generate responses and report back. You may also choose to implement a “hands on” activity to facilitate the discussion.

3. **Your third task is to provide guidance** to the group so that major points are covered and the discussion does not become too diffuse or tangential.
Written exam (20%): There will be one written in-class exam on Thursday, November 16. The exam will consist of essay questions that require you to integrate and apply the concepts and material from the course. We will discuss the exam in more detail during the term.

Research proposal (5%): You are to select a topic related to the cognitive neuroscience of decision making. This could be a detailed exploration of a topic only touched on in class, a related topic, or an application of the course material to another area of interest. You should go beyond the course readings. This is an opportunity for you to find an intersection between the course content and your other interests. Your proposal should describe your topic, how it relates to the cognitive neuroscience of decision making, and how you will approach the topic, and provide examples of the relevant literature. A one-page typed proposal for your topic is due on Thursday, October 26.

Research presentation (5%): During the last classes of the term, each student will give a short presentation on their chosen research topic. This is your opportunity to share your topic of interest with the rest of us. The presentations will be 10 to 15 minutes long (depending on final enrollment), followed by a couple of minutes for questions.

Research paper (20%): A 12 to 15 page double-spaced typed report on your research topic of choice. You should incorporate references to peer-reviewed scientific articles, but don’t just describe the articles, you should integrate the material and provide your own perspective on it. Your paper will be evaluated for being well-written and free of errors, for the references you cite and your use of them, and for the quality and organization of your argument. The paper is due on Friday, December 1.

Course Experience Survey (CES)
Near the end of the term, you will receive an email inviting you to complete the CES online. Please complete the CES in class on Thursday, November 30. I will set aside ~15 minutes at the beginning of class. We do the CES in class because this increases the number of students who complete it. You will need your UVic Netlink ID and a laptop, tablet, or mobile device. If you do not own one then please try to borrow one for that class. If you don’t complete the CES during class, you can complete it at any time during the last week of classes.

I value your feedback on this course! The more students that complete the survey, the more meaningful and informative the results will be. The CES provides vital information that I will use to improve this course in the future. It will also be used by the Department of Psychology to evaluate my performance as an instructor. I will not receive the results until after I have submitted marks for this course. Responses are anonymous unless you choose to say things in optional open-ended comments that identify you.

Academic Concession
Absences and late work will be treated as unexcused unless one of the following is documented in writing: personal illness or accident; family affliction; or absence due to official University activity. Those granted a concession will normally be allowed to complete the work late. In the case of unexcused missed work or lateness, a grade of 0 will be recorded for the missed/late component.

Students are expected to familiarize themselves with the Department of Psychology Important Course Policy Information (attached).
**PSYCHOLOGY 451C (A01) – ADVANCED COGNITIVE NEUROSCIENCE: DECISION MAKING – FALL 2017**

**TENTATIVE COURSE SCHEDULE**

CourseSpaces Forum posts are due for each class indicated by an underlined class number (classes 2 through 18). Students may lead classes indicated by a **bold and underlined** class number (classes 6 through 18).

<table>
<thead>
<tr>
<th>Class</th>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
</table>
| 1     | Thurs., Sep. 7 | What is this course?  
Retrieved from [http://seedmagazine.com](http://seedmagazine.com) |
| 2     | Mon., Sep. 11 | What is a decision?  
*The Mind within the Brain*: Preface (pp. ix-xi), Chapter 1 (pp. 3-8), Chapter 2 (pp. 9-13)  
| 3     | Thurs., Sep. 14 | What is value?  
The Mind within the Brain: Chapter 3 (pp. 15-22)  
| 4     | Mon., Sep. 18  | How do we learn from rewards and punishments?  
The Mind within the Brain: Chapter 4 (pp. 23-34)  
| 5     | Thurs., Sep. 21 | Should I wait?  
The Mind within the Brain: Chapter 5 (pp. 35-40)  
[https://doi.org/10.1523/JNEUROSCI.2516-10.2010](https://doi.org/10.1523/JNEUROSCI.2516-10.2010) |
| 6     | Mon., Sep. 25  | What brain systems are involved in decision making?  
The Mind within the Brain: Chapter 6 (pp. 43-59)  
| 7     | Thurs., Sep. 28 | What is the role of emotion in decision making?  
The Mind within the Brain: Chapter 7 (pp. 61-64), Chapter 8 (pp. 65-74)  
| 8     | Mon., Oct. 2   | How do we organize our behavior?  
The Mind within the Brain: Chapter 9 (pp. 75-86)  
| 9     | Thurs., Oct. 5 | How can we banish the homunculus?  
The Mind within the Brain: Chapter 10 (pp. 87-96)  
**Mon., Oct. 9** Thankgiving Day – No class! |
| 10    | Thurs., Oct. 12 | How are basic perceptual decisions made?  
The Mind within the Brain: Chapter 11 (pp. 97-105)  
11 Mon., Oct. 16  Do we know why we decide the way we do?
*The Mind within the Brain:* Chapter 12 (pp. 107-112), Chapter 13 (pp. 113-124)

12 Thurs., Oct. 19  How do we deal with the unknown?
*The Mind within the Brain:* Chapter 14 (pp. 125-132)

13 Mon., Oct. 23  How do we exhibit self-control?
*The Mind within the Brain:* Chapter 15 (pp. 133-141)

14 Thurs., Oct. 26  What is the relationship between mind, brain, and body?  
*Research proposal due*
*The Mind within the Brain:* Chapter 16 (pp. 145-160), Chapter 17 (pp. 161-170)

15 Mon., Oct. 30  What is the neural basis of addiction?
*The Mind within the Brain:* Chapter 18 (pp. 171-183), Chapter 19 (pp. 185-192)

16 Thurs., Nov. 2  There’s no accounting for taste, or is there?
*The Mind within the Brain:* Chapter 20 (pp. 193-197), Chapter 21 (pp. 199-202)

17 Mon., Nov. 6  How do we make moral decisions?
*The Mind within the Brain:* Chapter 22 (pp. 205-209), Chapter 23 (pp. 211-226)

18 Thurs., Nov. 9  Is there free will?
*The Mind within the Brain:* Chapter 24 (pp. 227-236), Epilogue (pp. 237-238)

Mon., Nov. 13  Reading Break – No class!

19 Thurs., Nov. 16  Written exam

20 Mon., Nov. 20  Research presentations

21 Thurs., Nov. 23  Research presentations

22 Mon., Nov. 27  Research presentations

23 Thurs., Nov. 30  Research presentations

Fri., Dec. 1  Research paper due
Prerequisites

Students who remain in courses for which they do not have the prerequisites do so at their own risk. Students who complete courses without prerequisites ARE NOT exempt from having to complete the prerequisite course(s) if such courses are required for the degree program.

Program Requirements

For more information see pages 308-313 of the UVic Calendar September 2017.

Registration Status

Students are responsible for verifying their registration status. Registration status may be verified using My Page, View Schedule. Course adds and drops will not be processed after the deadlines set out in the current UVic Calendar.

Commitment to Inclusivity and Diversity

The University of Victoria is committed to promoting, providing and protecting a positive and supportive and safe learning and working environment for all its members.

In the Event of Illness, Accident or Family Affliction (See UVic Calendar, September 2017, p. 49-51)

• **What to do if you miss the final exam scheduled during the formal exam period**

Apply at Records Services for a “Request for Academic Concession”, normally within 10 working days of the date of the exam. Records Services will forward the form to the instructor. If the concession is granted, the instructor will determine how to deal with the situation (for example, a deferred exam). Where a concession is not applied for or where such application is denied, an N grade will be entered on the student’s academic record.

OR, you can download the Request for Academic Concession form here: [http://www.uvic.ca/registrar/assets/docs/record-forms/rac.pdf](http://www.uvic.ca/registrar/assets/docs/record-forms/rac.pdf)

• **What to do if you miss an exam other than one scheduled during the formal exam period**

Do not apply at Records Services for a “Request for Academic Concession”. Instead submit documentation of the illness, accident or family affliction directly to your course instructor (or designated teaching assistant).

• **What to do if you require additional time to complete course requirements**

Apply at Records Services for a “Request for Academic Concession”, normally within 10 working days of the end of the course. Records Services will forward the form to the instructor. If the concession is granted, the instructor will determine how to deal with the situation (for example, a deferred exam). Where a concession is not applied for or where such application is denied, an N grade will be entered on the student’s academic record.

OR, you can download the Request for Academic Concession form here: [http://www.uvic.ca/registrar/assets/docs/record-forms/rac.pdf](http://www.uvic.ca/registrar/assets/docs/record-forms/rac.pdf)
Policy on Academic Integrity including Plagiarism and Cheating

The Department of Psychology fully endorses and intends to enforce rigorously the Senate Policy on Academic integrity [http://web.uvic.ca/calendar2017-09/undergrad/info/regulations/academic-integrity.html], p. 46-48, UVic Calendar September 2017). It is of utmost importance that students who do their work honestly be protected from those who do not. Because this policy is in place to ensure that students carry out and benefit from the learning activities assigned in each course, it is expected that students will cooperate in its implementation.

The offences defined by the policy can be summarized briefly as follows:

1. **Plagiarism.** You must make sure that the work you submit is your work and not someone else’s. There are proper procedures for citing the works of others. The student is responsible for being aware of and using these procedures.

2. **Unauthorized Use of an Editor.** The use of an editor is prohibited unless the instructor grants explicit written authorization.

3. **Multiple Submission.** Only under exceptional circumstances may a work submitted to fulfill an academic requirement be used to satisfy another similar requirement. The student is responsible for clarifying this with the instructor(s) involved.

4. **Falsifying Materials Subject to Academic Evaluation.** This includes falsification of data, use of commercially prepared essays, using information from the Internet without proper citation, citing sources from which material is not actually obtained, etc.

5. **Cheating on Assignments, Tests, and Examinations.** You may not copy the work of others in or out of class; you may not give your work to others for the purpose of copying; you may not use unauthorized material or equipment during examinations or tests; and you may not impersonate or allow yourself to be impersonated by another at an examination. The Department of Psychology has a policy of not making old examinations available for study purposes. Therefore, use of old exams without the express written permission of the instructor constitutes cheating by the user, and abetting of cheating by the person who provided the exam.

6. **Being an Accessory to Offences.** This means that helping another student to cheat (for instance, by showing or communicating to them answers to an assignment, or by allowing them to view answers on an exam) is an academic offence.

Instructors are expected to make every effort to prevent cheating and plagiarism. This may include the assignment of seating for examinations, asking students to move during examinations, requests to see student identification cards, and other measures as appropriate. Instructors also have available to them a variety of tools and procedures to check for Internet and electronic media-based cheating. In instances of suspected or actual plagiarism or cheating, instructors, following prescribed procedures, are authorized to take steps consistent with the degree of the offence. These measures will range from a zero on the test or assignment or a failing grade for the course, probation within a program to temporary or even permanent suspension from the University.

Rights of Appeal are described in the Policy on Academic Integrity in the University calendar (on p. 47 in September 2017).

The definitive source for information on Academic Integrity is the University Calendar (p. 46-48 in September 2017) ([http://web.uvic.ca/calendar2017-09/undergrad/info/regulations/academic-integrity.html](http://web.uvic.ca/calendar2017-09/undergrad/info/regulations/academic-integrity.html))

Other useful resources on Plagiarism and Cheating include:

1. The Study Solutions Office: [https://www.uvic.ca/services/counselling/success/study/index.php](https://www.uvic.ca/services/counselling/success/study/index.php)
2. The Ombudsperson’s office: [http://www.uvss.uvic.ca/ombudsperson/pubsguides/plagiarism.pdf](http://www.uvss.uvic.ca/ombudsperson/pubsguides/plagiarism.pdf)