Psychology 351C (A01) – Cognitive Neuroscience – Fall 2021 Course Outline

Time: Monday & Thursday, 11:30am – 12:50pm Location: ECS 116 Website: Bright space

Instructor: Prof. Adam Krawitz

Email: akrawitz@uvic.ca Office: Cornett A251 Office Hours: TBA on Brightspace

Teaching Assistant: Josh Palmer

Email: impalmer@uvic.ca Office: Cornett B327 Office Hours: TBA on Brightspace

Course Inspiration & Goals

"The mind is what the brain does."

Steven Pinker, p. 21, How the Mind Works, 1997.

My primary goals for this course are for you to:

Improve your knowledge of the field of cognitive neuroscience.

Develop your ability to critically read and evaluate research about the mind and brain.

Gain a deeper understanding of the methods of cognitive neuroscience.

Increase your appreciation for how cognitive neuroscience is applicable to everyday life.

Territory Acknowledgement

We acknowledge and respect the l k m peoples on whose traditional territory the university stands and the Songhees, Esquimalt and \underline{W} SÁNE peoples whose historical relationships with the land continue to this day.

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 Prerequisites & Registration

Prerequisites for this course are: PSYC201 and PSYC251.

Students are responsible for checking their own registration status. Students will not be added to the course after the Add Deadline on September 25. 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 24, with 50% fee reduction is October 12, and without penalty of failure is October 31. Refer to the UVic Calendar for further dates: https://web.uvic.ca/calendar/dates/

Required Materials

Hardware/App/Web: iQicker/iQicker 2/iQicker+ remote, or iQicker Student Mobile/ Web App

For sale at the UVic Bookstore and online: https://www.iclicker.com/students

Register your idicker through UVic Online Tools:

https://www.uvic.ca/tools/student/tools-forms/iclicker/

Assigned Readings: Journal articles and book chapters.

Available as PDFs on Brightspace: https://bright.uvic.ca/d2l/home/148312

Optional Materials

Textbook: Gazzaniga, M. S., et al. (2018). *Cognitive Neuroscience: The Biology of the Mind* (Fifth Edition).

New York: W. W. Norton & Company, Inc.

At UVic Bookstore and online at: https://wwnorton.com/books/9780393603170

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Grades

Your final letter grade in the course will be determined by your total percent score according to the standard UVic grading scale (https://www.uvic.ca/calendar/undergrad/index.php#/policy/S1AAgoGuV). Final grades with a decimal point of 0.5 or above will be rounded to the next higher whole number, and grades 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:

С Letter grade: A+ A-B+ B-C+ D Minimum %: 77 73 70 60 50 90 85 80 65

Evaluation

Your grade will be based on the following items:

<u>Item</u>	<u>Date</u>	% of Grade	
iClicker Participation	throughout	5(or 0) 🗋	
Homework Assignments	throughout	20 (or 25)	
Exam 1	Mon., Oct. 18	25	6
Exam 2	Mon., Nov. 15	25	
Exam 3	(Exam Period)	ر 25	
Extra Credit	by Mon., Dec. 6	(up to 2)	

The exams are required course components. Failure to complete all 3 exams will result in an N grade.

iClicker Participation (5% or 0%): The use of iClickers will give you opportunities to participate in class and compare your thoughts with those of other students, and provide me with feedback on your level of understanding. You will not be evaluated on the answers you give, just on participation.

iQicker participation credit for a class is earned by making at least one iQicker response that day. Credit will be given for each class, except for the first class and exam days, thus there are 20 available classes. You can miss iQicker participation in up to 4 classes and still receive full credit. If you miss participation in more than 4 classes, your grade will be based on the number of days you participated divided by 16.

Note: The 5% for iClicker Participation may alternatively be determined by your Lab Activities. This option will be automatically invoked if it will benefit your final course mark. While I strongly believe you will get the most out of the course if you attend and participate in class, this option allows for flexibility if you cannot or choose not to attend.

Homework Assignments (20% or 25%): For each topic, a homework assignment will give you hands-on experience and active engagement with the material. Credit will be divided evenly over the 7 assignments. Detailed instructions on how to access and complete the assignments will be provided on Brightspace.

Exams (75%): Exams will evaluate your understanding of the material presented in the assigned articles, the lectures, and the homework assignments. Exams will include multiple choice and short answer questions on the following topics:

Exam 1: TMS & Perception and ERPs & Attention

Exam 2: Single-Unit Recording & Action and Neural Networks & Cognitive Control

Exam 3: fMRI & Long-Term Memory, Lesions & Language, Converging Methods & Decision Making

The first 2 exams will be during class, while Exam 3 will be during the examination period. You are responsible for taking examinations as scheduled. This responsibility includes Exam 3, so **DO NOT plan your travel until the exam schedule is finalized**. If you miss an exam for a valid reason (e.g. illness or accident) you may be permitted to take a make-up test at the instructor's discretion. Unexcused missed examinations will be assigned a score of zero. If you will need time beyond the end of the term, you must apply to the Office of the Registrar to request a deferral (see the UVic Calendar for guidelines: https://www.uvic.ca/calendar/undergrad/index.php#/policy/HJAxiGO4).

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Sources of Assistance

Please make use of the following resources as needed:

- **Course Material**: Do you have questions about course material? Or do you just want to chat about the course? Please feel free to contact Prof. Krawitz or the TA during office hours or by email.
- Course Marks: Do you have questions about the marking of an exam or lab activity? First, review the course material, including the answer key (if applicable), to determine the explanation yourself. Second, if you still have questions, visit the TA during office hours. Third, if talking to the TA does not resolve the issue, visit Prof. Krawitz during office hours.
- **Brightspace**, **Echo360**, **etc...**: For issues using Brightspace, Echo360, or other online tools, visit UVic's Learn Anywhere site: https://onlineacademiccommunity.uvic.ca/learnanywhere/
- Email, Netlink ID, Lab Computers: For technical matters, please contact the Computer Help Desk: helpdesk@uvic.ca, (250) 721-7687, Clearihue A004, or visit the University Systems Help Centre: https://www.uvic.ca/systems/support/

Psychology Research Participation System: Email the coordinator: p100res@uvic.ca

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Topic O. Cours	<u>Date</u> e Introduction	Reading	Optional Textbe Ch. 1	ook Reading	<u>Homework</u> *
	Thu., Sept. 9	Posner & DiGirolamo (2000)			
1. TMS &	Mon., Sept. 13 Thu., Sept. 16 Mon., Sept. 20	Hallett (2007) Walsh & Cowey (1998) Pascual-Leone & Walsh (2001)	Ch. 3 (pp. 88-89) & Ch. 5	
2. ERPs &	& Attention Thu., Sept. 23 Mon., Sept. 27 (Thu., Sep. 30	Luck (2012) Luck, Woodman, & Vogel (2000) National Day for Truth and Reconct	Ch. 3 (pp. 98-10)		HW 1. Due
	Mon., Oct. 4	Luck, Vogel, & Shapiro (1996)			
3. Single	r- Unit Recording & Thu., Oct. 7 (Mon., Oct. 11 Thu., Oct. 14	& Action Buzsáki (2004) <i>Thanksgiving Day – No Class)</i> Georgopoulos (1994)	Ch. 3 (pp. 95-98) & Ch. 8	HW 2. Due
Exam 1	Mon., Oct. 18	(Topics 1 & 2)			
	Thu., Oct. 21	Georgopoulos et al. (1989)			
4. Neura	Mon., Oct. 25 Thu., Oct. 28 Mon., Nov. 1	gnitive Control Lewandowsky & Farrell (2010), Hin Botvinick & Cohen (2014) Braver, Barch, & Cohen (1999)	Ch. 3 (pp. 111-114 ton (1992)	4) & Ch. 12	HW 3. Due
5. fMRI &	Long-Term Men Thu., Nov. 4 Mon., Nov. 8 (Thu., Nov. 11	nory Wittmann & D'Esposito (2012) Henson (2005) <i>Reading Break – No Class)</i>	Ch. 3 (pp. 107–11	10) & Ch.9	HW 4. Due
Exam 2	Mon., Nov. 15	(Topics 3 & 4)			
	Thu., Nov. 18	Cabeza et al. (2001)			
6. Lesior	ns & Language Mon., Nov. 22 Thu., Nov. 25 Mon., Nov. 29	Rorden & Karnath (2004) Hillis (2007) Dronkers (1996)	Ch. 3 (pp. 78-86) & Ch. 11	HW 5. Due
7. Conve	rging Methods & Thu., Dec. 2 Mon., Dec. 6	Decision Making Bechtel (2002) Platt & Huettel (2008), Knoch et al.	Ch. 3 (pp. 114-11) (2006)	7) & Ch. 12	HW 6. Due
Exam 3	Exam Period	(Topics 5, 6, & 7)		Thu., Dec. 9:	HW 7. Due

^{*} Homework Activities are due at 11:59 pm on the due date.

UNIVERSITY OF VICTORIA Department of Psychology

Important Course Policy Information Fall 2021

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 the UVic Calendar September 2021.

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

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 to do if you require

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,

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

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. **Aiding Others to Cheat**. It is a violation to help others or attempt to help others to engage in any of the conduct described above.

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 September 2021.

The definitive source for information on Academic Integrity is the University Calendar Other useful resources on Plagiarism and Cheating include:

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A note to remind you to take care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress. All of us benefit from support during times of struggle. You are not alone.

Social Life, Friends, & Community at UVic:

Having a social network is an extremely important foundation for positive mental health. There are lots of benefits to joining clubs, course unions, intramurals and teams on campus.

https://www.uvic.ca/mentalhealth/undergraduate/connecting/index.php

Health Services:

University Health Services (UHS) provides a full service primary health clinic for students, and coordinates healthy student and campus initiatives. www.uvic.ca/services/health/

Centre for Accessible Learning

The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations