PSYC 472: Advanced Topics in the Neuroscience of Motivation

Jan- April 2020

Dr. Catharine Winstanley: cwinstanley@psych.ubc.ca; DMCBH 4503; 604-822-3128

TA:

Course outline:

Preregs: PSYC 361.

This course will build directly on the foundational information covered in the 3rd year course "Neuroscience of Motivation (PSYC 361)". It is aimed at 3rd-4th year students who are specialising in Behavioural Neuroscience for their major.

Course learning outcomes:

- 1. How have theories regarding the neurocognitive basis of affective decision making evolved since the original publication of the Iowa Gambling Task?
- 2. What does non-homeostatic regulation of motivational drive mean for the regulation of food intake, and how does this inform our understanding of eating disorders?
- 3. How does the neurobiology of goal-directed behaviour differ from habitual/automatic processes, and how has this framed the theoretical consideration of psychiatric disorders?
- 4. How do we best understand learning from stress and negative events?
- 5. What are the clinical implications of these discussions?

My goal for this course: Make it INTERESTING, VALUABLE and EDUCATIONAL.

There is no textbook for this course- all the information covered will be contained in original articles or reviews. Required readings will be posted on the canvas website.

The first half of the course will be purely lecture-based, although class discussions will be encouraged as time permits. In the second half of the course, you will choose and present a paper based on the information covered in the first half of the course (details below). You will also write a press release based on this paper, and pitch the importance of the science in 60s.

Course grade: The course grade will be made up as follows:

Midterm: 30%

Presentation: 20%

Poster: 20%

Press release: 15%

60s pitch: 15%

Participation: - up to 5%

Presentation guidelines and rubric:

Choose a paper from one of the following journals:

Addiction Biology; Biological Psychiatry; Brain, Behavior and Immunity; European Journal of Neuroscience; eNeuro; Journal of Neuroscience; Journal of Psychiatry and Neuroscience; Molecular Psychiatry; Neuron, Neuropharmacology; Neuropsychopharmacology; Nature Neuroscience; Psychopharmacology; Psychoneuroendocrinology; Translational Psychiatry

If there's a paper you'd like to present from a journal not on this list, you must ask me first

The presentation must summarise the rationale for the study, the methods used, key results, and the impact of the results on the field. The limitations of this work and future directions for study should be highlighted. When choosing your paper, take time to THINK CAREFULLY about the importance of the science, and how well you can explain it in the time allowed- does it give you the chance to shine? Presentations should last no more than 12 minutes, and going over the time limit will be penalised.

Presentation Skills (10)	Volume/ Rate of Speech (2.5)	Presenter is easy to hear and understand. Pace is neither too fast nor too slow.	Audience is mostly able to hear and understand, but sometimes the presenter's volume and/ or pace is problematic.	Presenter is difficult to hear and understand.	
		2.5	2 1.5	1 0.5	
	Mannerisms (2.5)	Speaker makes eye contact with everyone present. Speaks without notes.	Eye contact may focus on only one or a few people. May read parts of presentation.	Very little eye contact made with audience. Speaker(s) reads presentation.	
	Organization (5)	Presentation is well organized with a beginning, middle, and end; clear main ideas and transitions.	Speaker loses train of thought, or comes across as slightly disorganized at times.	Presentation has little organization, unclear purpose, and/or unclear transitions.	

Content of Presentation (30)	Introduction of research topic (8)	Provides relevant background information to clearly explain the variables of interest. Clearly states research question and gives justification for research presented.	Background information or explaining the variables of interest is lacking or only somewhat relevant. Research question is not clearly stated or justification for research is lacking.	Research question or hypothesis not clear or not stated. Little or no background or justification is given.	
	Research design, methods & sample (7)	Clearly identifies the type of design and the methods used including primary variables and controls.	Parts of the design and/or methods are clear but other parts are confusing; primary variables and controls may or may not be mentioned.	3 2 1 Key elements of the design and methods are missing and/or confusing. Variables and controls not mentioned. 3 2 1	
	Results (8)	7 6 Clearly explains the main findings of the study and figures are clear and easy to follow.	Main findings are adequately explained and figures are adequately constructed; however, some aspects are confusing.	Main findings are not adequately explained and the figures are confusing.	
	Discussion (7)	Clearly identifies and explains the importance of the main findings, limitations of the study and future directions. Findings of the paper are directly relevant to the class material and greatly inform our understanding of the relevant issues.	Identifies main findings, but may not clearly explain its importance. Summary of limitations and/or future directions is limited. Findings of the paper are only somewhat relevant to the class material and more incrementally advance our understanding of key issues.	Main findings are not discussed and/or are poorly explained. Summary of limitations and/or future directions is missing. Paper does not greatly advance our understanding of core issues covered in class or is irrelevant. 3 2 1	
		7 6	5 4		

Press release guidelines and rubric:

Press releases must fit on a single page, typed in Calibri font 11, and contain no more than 400 words.

Language use	Conveys material using simple and understandable language accessible to the average layperson and non-expert. Sentences are short and punchy. No spelling or grammatical errors	Language used is mostly appropriate, with a few jargon or buzzwords that are difficult to understand. Only a few typographical or grammatical errors. Some sentences could be edited for clarity.	Language used is too complicated/ inaccessible. Sentences are too long and clunky. Multiple grammatical and typopraphical errors.
	5 4		2 1
Tone	Highlights the strengths and importance of the paper without overstating the findings, or making inappropriately grandiose statements.	Mainly strikes the right tone, but some statements are either confusing/misleading, or fail to add impact.	Statements are misleading or overblown OR importance may be missing, so that reader is left wondering what the significance of the work actually is.
	5 4	3	2 1
Content	Clearly explains the methods and main findings of the study	Some details about the experimental design or findings are incorrect.	Methods and findings are inaccurate or hard to follow.
	5 4	3	2 1

60s pitch guidelines and rubric:

Presentation style	Strong body language, clear vocals and projection. Good use of gestures.	Body language is mainly strong, but some slips in confidence or projection.	Presenter seemed unsure of themselves, spoke to quickly, or was hard to understand in places.
Content	The scale of the problem and the urgency of meeting that need is conveyed well; language used is accessible and compelling, such that the audience understood and wanted to know more.	The general importance of what the research is aiming to address is conveyed, but parts of the message or urgency remain unclear.	It is unclear what the problem is that the research is trying to address, or why we should care about it. Too much jargon used, such that the findings are unclear or their impact is lost 2 1

Poster guidelines and rubric

		Advanced Developing		Poor			
Content of Presentatio n (30)	Introduction of research topic (8)	Provides relevant background information to clearly explain the variables of interest. Clearly states research question and gives justification for research presented in the poster.	Background information or explaining the variables of interest is lacking or only somewhat relevant. Research question is not clearly stated or justification for research is lacking.	Research question or hypothesis not clear or not stated. Little or no background or justification is given.			
		8 7	6 5 4				
				3 2 1			
	Research design, methods & sample (7)	Clearly identifies the type of design and the methods used including primary variables and controls.	Parts of the design and/or methods are clear but other parts are confusing; primary variables and controls may or may not be mentioned.	Key elements of the design and methods are missing and/or confusing. Variables and controls not mentioned.			
		7 6	5 4	3 2 1			
	Results (8)	Clearly explains the main findings of their study and figures are clear and easy to follow.	Main findings are adequately explained and figures are adequately constructed; however, some aspects are confusing.	Main findings are not adequately explained and the figures are confusing.			
		8 7	6 5 4				
				3 2 1			
	Discussion (7)	Clearly identifies and explains the importance of the main findings, limitations of	Identifies main findings, but may not clearly explain its importance. Summary of limitations and/or	Main findings are not discussed and/or are poorly explained. Summary of limitations			

	the study and future directions.	future directions is limited.		and/or future directions is missing.		tions
		5	4			
	7 6		•	3	2	1

Participation mark:

This will reflect your engagement in the peer review process (i.e. you'll lose marks if you repeatedly don't turn up to class, or don't submit your peer review grades at the end of class/ have clearly not been paying attention during other people's presentations)