PSYCHOLOGY 4920: TOPICS IN COGNITIVE NEUROSCIENCE

Tuesdays: 2:30-5:15pm (Room 3M60)

Instructor

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Office hours: By appointment

Course Description

This course provides a detailed survey of the emerging fields of social and affective neuroscience. These interdisciplinary fields examine the neural mechanisms contributing to social behaviours and emotional responses. Topics are discussed from both a neuroscience and a behavioural perspective, with special emphasis on solving the research-design challenges associated with analyzing complex behaviours.

Course Website

URL: http://io.uwinnipeg.ca/~ssmith24/teaching/psych4920.htm

This site will contain slides from the professor’s lectures (in pdf format) as well as information about the course, including the list of student presentation dates.

Grade Components

Weekly Thought Papers (40%) – Each week, students will be asked to write a 500-word (2 page) MAXIMUM thought paper detailing their thoughts on a particular issue dealt with in the assigned articles (examples will be provided on the class website). These papers are not a summary; rather, they are a critical-thinking exercise in which students will examine the connections between articles and/or important methodological considerations. There will be no essay for Week 1 (obviously). Also, students will not be required to write a thought paper for the class in which they are presenting. The grade for this portion of the course will be based on the average of the students’ 10 thought papers.

Please email your essays to the professor at s.smith@uwinnipeg.ca. We will discuss important points raised in the student essays in each class. Essays will be due at NOON the day before class (Mondays) in order to give everyone time to read them.

Class Presentation (25%) – Students will give a 50-minute class presentation in which they (1) provide background information about a particular topic (listed below) and (2) lead a class discussion regarding the results a particular scientific paper. The purpose of this presentation is to provide students with practice presenting research findings, a skill
that will be useful for those students hoping to pursue graduate studies. A more detailed grade breakdown for this part of the course will be provided separately.

**Class Participation (10%)** – Students are expected to participate in class discussions. Each class will be graded out of 10 points, with the final class-participation score being the average of the individual class grades.

**Research Proposal (25%)** – Students will complete a 2500 – 3000 word research proposal on a topic of their choice. The research proposal will consist of a review of the existing literature as well as a proposed experiment that could test a particular theory or could expand our knowledge of a particular topic; students should present feasible ideas that could be performed as an Honours or Master’s thesis. These papers will be due on Friday, December 11 at 4:00pm AT THE LATEST. Papers should be typed and references will be in APA format. Students should meet with the professor beforehand in order to confirm that their topic selection is appropriate. **Student can, but do not have to, select the same topic for their paper and class presentation. Students should meet with the professor to confirm their topic as soon as possible.** A more detailed grade breakdown for this part of the course will be provided separately.

**Grades**

Please note carefully that the cutoffs provided below are tentative guidelines that the course instructor will follow, but unofficial grades based on these tentative guidelines below do not necessarily correspond to the official final grades awarded by the University administration. The Registrar retains the right to modify grading cutoffs in cases involving exceptionally skewed grade distributions, and other unusual circumstances. In most cases official final grades correspond quite closely to the unofficial grades based on the cutoffs provided below. Please be advised that this is not always, or necessarily, the case, however. The following should therefore be interpreted as unofficial cutoffs, not absolute final official grading cutoffs for this course.

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<tr>
<th>Grade</th>
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<tr>
<td>A+</td>
<td>95 –100%</td>
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<td>A</td>
<td>87 – 94.5%</td>
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<td>80 – 86.5%</td>
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<td>B+</td>
<td>75 – 79.5%</td>
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<td>B</td>
<td>70 – 74.5%</td>
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<td>F</td>
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Example Final Grade Calculations

Betsy received the following scores on her 10 thought papers: 3, 3, 3.5, 4, 4, 3.5, 4.5, 4, 4, and 4.5. She received 80% on her research proposal and 75% on her class presentation. Her class-participation score was 8 out of 10. Her final grade would be: 77%, or a grade of B+.

Bubba received the following scores on his 10 thought papers: 3.5, 3, 4.5, 4, 4, 4.5, 4.5, 4, 5, and 4.5. He received 87% on his research proposal and 85% on his class presentation. His class-participation score was 9 out of 10. His final grade would be: 85%, or a grade of A-.

Other Important Dates

Sept. 9 – Lectures begin
**Oct. 30 – Final day to withdraw from courses without penalty**
Dec. 3 – Last day of classes for the Fall semester
Dec. 11 – Final papers are due by 4:00pm

Academic Misconduct

According to University of Winnipeg Misconduct Policy a student is liable for appropriate penalty for engaging in any of the following: Plagiarism, Cheating, Improper Research/Academic Practices, Obstruction of the Academic Activities of Another, Impersonation, Falsification or Unauthorized Modification of an Academic Record, and Aiding and Abetting Academic Misconduct. It is in the student’s best interests to review information regarding each of these instances of academic misconduct (Section 7 of the General Calendar).

Services for Students with Disabilities

Students with documented disabilities requiring accommodations during lectures are encouraged to contact Andrea Johnston, Coordinator of Accessibility Services at 786-9771 or a.johnston@uwinnipeg.ca. All information is confidential. Information on the services is available at [http://www.uwinnipeg.ca/index/services-disability](http://www.uwinnipeg.ca/index/services-disability) or at their office, OGM12B.
Lecture Topics and Readings

Although this list of readings is fairly concrete, the instructor reserves the right to add or remove articles in order to improve the focus of class discussions. The professor will lead the class discussions for the first six weeks of the course. In the following five weeks, each student will guide class discussions on a particular topic, as listed below. The readings for the final week are TBA—the professor will allow the students to select the topic for discussion and will then email appropriate articles to the class.

September 15, 2009 – The Basic Assumptions of Affective and Social Neuroscience


September 22, 2009 – The Amygdala, Attention, and Anxiety


September 29, 2009 – Rewards: Appetitive, Monetary, and Social


October 6, 2009 – Physical and Moral Disgust

Harris, L., & Fiske, S. (2007). Social groups that elicit disgust are differentially processed in the mPFC. *Social, Cognitive and Affective Neuroscience, 2,* 45-51.


October 13, 2009 – Embodied Cognition and the Neuroscience of Mindfulness


October 20, 2009 – Emotional Regulation and Cognition-Emotion Interactions


October 27, 2009 – Student Presentations I – Memory and Emotions

a. What Types of Emotional Information Do We Remember?


b. Can We Forget Emotional Information?


c. Flashbulb Memory and Neuropsychology


November 3, 2009 – Student Presentations II – The Negative and the Positive

a. Aggression and the Brain


b. Psychopathy, Violence, and the Brain


c. Positive Psychology and Neuroimmunology

November 10, 2009 – Student Presentations III – Interpersonal Interactions

a. Physical and Social Pain


b. Neuroscience and Prejudice


c. Trust and the Empathy


November 17, 2009 – Student Presentations IV – Clinical Issues

a. Depression


b. Autism, Emotions, and the Brain


November 24, 2009 – Student Presentations V - Neuroscience and the Arts

a. Music, Emotion, and the Brain


b. The Neuroscience of Walking Through an Art Gallery


c. Humor and the Brain


December 1, 2009 – Student Presentations VI – Psychology of the Finite and Infinite

a. Time Perception, Emotion, and the Brain


b. The Neuroscience of Spiritual Experiences


c. Conclusions

No reading. Presentation given by professor.

Research proposals are due by 4:00pm on Friday, December 11.