

PSYC 370 – Brain and Behaviour II – 2020

Instructor: Dr. Janet Menard
Office: Craine - 431
Phone: 533-3099
Email: menard@queensu.ca

Office Hours: Fridays 3:00-4:00

Teaching Assistant: Savannah Lightfoot
Email: 13shml@queensu.ca

Office Hours: Wednesday's 2:30-3:30
Office: Craine 403

Teaching Assistant: Samantha Irwin
Email: si27@queensu.ca

Text: Biopsychology (9th or 10th edition; Hard copy OR REVEL)
JPJ Pinel
Allyn and Bacon

INTENDED STUDENT LEARNING OUTCOMES

To complete this course, students will demonstrate their ability to:

1. Outline the primary stages of neural development in humans.
2. Summarize current perspectives on various forms of brain damage, including neurodegenerative disorders
3. Summarize current theories on the biopsychology of eating, sleeping, sexual behaviour, and drug addiction.
4. Evaluate research findings relating to the biopsychology of motivation, cognition, and emotion.

EXAMS AND GRADING

DATE	EXAM	MATERIAL COVERED	% OF FINAL MARK
Monday, Feb 3	Midterm Exam I	Section 1- Chapters 9, 10 (general exam format, see below)	25%
Monday, Mar 9	Midterm Exam II	Section 2 - Chapters 12, 13, 14 (general exam format)	25%
	Final Exam	Section 3 - Chapters 15, 17, 18 (general exam format)	25%
		Chapters 9-18 (excluding Chapters 11 & 16) (multiple choice only)	25%

General exam format: Exams will consist of fill-in-the-blank, definitions, short answer and multiple-choice questions. Short answer and fill-in-the blank questions cover material that is delivered during lectures. Any material in the text is fair game for a multiple-choice question, regardless of whether was covered in lectures or not. Thus, **YOU ARE RESPONSIBLE FOR ALL OF TEXT MATERIAL FROM THE ASSIGNED CHAPTERS.**

NOTE: **There are NO MAKEUP EXAMS FOR THE TWO MIDTERMS.** If you have an excused absence from a midterm, the weight the missed midterm will be either 1) transferred to the final exam OR 2) 10% can be transferred to the other midterm and 15% to the final (this latter option has to be chosen *before* you write the final). Contact me by email and let me know your choice. See the following page for further information on excused absences from an exam.

IF YOU HAVE AN EXCUSED ABSENCE FROM THE FINAL EXAM, THE DEPT. OF PSYCHOLOGY WILL BE HOLDING A MAKE-UP FINAL EXAM. PLEASE CONTACT THE UNDERGRADUATE CHAIRS OFFICE FOR FURTHER DETAILS.

OBTAINING AN EXCUSED ABSENCE FROM AN EXAM

If you are ill, or facing other extenuating circumstance and cannot write one of the exams contact the Faculty of Art & Sciences portal: <http://www.queensu.ca/artsci/accommodations>. DO THIS PRIOR TO THE EXAM - THE FACULTY WILL NOTIFY ME ABOUT YOUR ABSENCE. YOU DO NOT HAVE TO CONTACT ME but you MUST REGISTER YOUR ABSENCE AT THE ACCOMODATIONS PORTAL (see below for further details).

Accommodation after the fact: Once a student has written an exam they may not subsequently be granted accommodation such as being offered a second opportunity assignment or have it count for less than originally specified in the course syllabus (reweighted).

MARKING SCHEME

Psych 370 has a “*Numbers In, Letters Out*” marking scheme: You will be given a percentage (%) grade for the 1st and 2nd midterm exams (e.g., 92% and 89%). (Midterm marks will be posted on Moodle.) A percentage grade will be calculated for the final exam (e.g., 96%), and the 3 grades will be used to determine a weighted average (e.g., $[(.25 * 92) + (.25 * 89) + (.50 * 96)]$ = a weighted average of 93.25). The final % grade will then be converted to a letter grade (e.g., 93.25% = A+; ☺).

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

<i>Grade</i>	<i>Numerical Course Average (Range)</i>
<i>A+</i>	<i>90-100</i>
<i>A</i>	<i>85-89</i>
<i>A-</i>	<i>80-84</i>
<i>B+</i>	<i>77-79</i>
<i>B</i>	<i>73-76</i>
<i>B-</i>	<i>70-72</i>
<i>C+</i>	<i>67-69</i>
<i>C</i>	<i>63-66</i>
<i>C-</i>	<i>60-62</i>
<i>D+</i>	<i>57-59</i>
<i>D</i>	<i>53-56</i>
<i>D-</i>	<i>50-52</i>
<i>F</i>	<i>49 and below</i>

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SECTION 1 - BRAIN PLASTICITY		
Monday, Jan 6	Course Organization	
Wednesday, Jan 8	Development of the Nervous System: - prenatal neurodevelopment	Chapter 9
Thursday, Jan 9	Development of the Nervous System: - postnatal development - experience and neurodevelopment -neurogenesis in adulthood	Chapter 9
Monday, Jan 13	Development of the Nervous System - disorders of neurodevelopment: Fetal Alcohol Syndrome	Chapter 9
Wednesday, Jan 15	Development of the Nervous System - disorders of neurodevelopment: Autism	Chapter 9
Thursday, Jan 16	Brain Damage and Neuroplasticity - causes of brain damage	Chapter 10:
Monday, Jan 20	Brain Damage and Neuroplasticity - neurological diseases: epilepsy	Chapter 10
Wednesday, Jan 22	Brain Damage and Neuroplasticity - neurological diseases: Huntington's	Chapter 10
Thursday, Jan 23	Brain Damage and Neuroplasticity - neurological diseases: Parkinson's disease	Chapter 10
Monday, Jan 27	Brain Damage and Neuroplasticity - neurological diseases: Alzheimer's	Chapter 10
Wednesday, Jan 29	Brain Damage and Neuroplasticity - responses to nervous system damage - neuroplastic responses to brain damage	Chapter 10
Thursday, Jan 30	TBA	Chapter 10
Monday, Feb 3	MIDTERM EXAM 1 -BRAIN PLASTICITY	Chapters 9 & 10

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SECTION 2 – MOTIVATED BEHAVIOURS		
Wednesday, Feb 5	Hunger, Eating, and Health: - digestion, energy storage, and energy utilization	Chapter 12
Thursday, Feb 6	Hunger, Eating, and Health: - neural regulation of hunger and satiety	Chapter 12
Monday, Feb 10	Hunger, Eating, and Health: - human obesity	Chapter 12
Wednesday, Feb 12	Hunger, Eating, and Health: - eating disorders: anorexia	Chapter 12
Thursday, Feb 13	Hormones and Sex - the neuroendocrine system	Chapter 13:
Feb 17-21	FAMILY DAY/ READING WEEK	
Monday, Feb 24	Hormones and Sex - hormones and sexual development - exceptional sexual development	Chapter 13
Wednesday, Feb 26	Hormones and Sex - neural regulation of sexual behavior	Chapter 13
Thursday, Feb 27	Sleep, Dreaming, and Circadian Rhythms: - sleep physiology - sleep and learning and memory	Chapter 14
Monday, Mar 2	Sleep, Dreaming, and Circadian Rhythms: - sleep and the immune and lymphatic systems	Chapter 14
Wednesday, Mar 4	Sleep, Dreaming, and Circadian Rhythms: - the circadian clock	Chapter 14
Thursday, Mar 5	Sleep, Dreaming, and Circadian Rhythms: - sleep disorders	Chapter 14
Monday, Mar 9	MIDTERM EXAM II – MOTIVATED BEHAVIOURS	Chapters 12 – 14

SECTION 3 – REWARD, ADDICTION, EMOTION AND PSYCHOPATHOLOGY		
Wednesday, Mar 11	Drug Addiction and the Brain's Reward Circuits - basic principles of drug action - role of learning in drug tolerance and withdrawal	Chapter 15:
Thursday, Mar 12	Drug Addiction and the Brain's Reward Circuits - biopsychological theories of addiction - drug addiction and the brain's reward system	Chapter 15
Monday, Mar 16	Drug Addiction and the Brain's Reward Circuits - chronic drug abuse-induced changes in brain	Chapter 15
Wednesday, Mar 18	Biopsychology of Emotion, Stress, and Health: - the stress response - stress and the hippocampus	Chapter 17
Thursday, Mar 19	Biopsychology of Emotion, Stress, and Health: - individual differences in sensitivity to stress	Chapter 17
Monday, Mar 23	Biopsychology of Emotion, Stress, and Health: - fear conditioning and the amygdala	Chapter 17
Wednesday, Mar 25	Biopsychology of Emotion, Stress, and Health: - emotions and facial expression - brain mechanisms of human emotion; fear and the human amygdala	Chapter 17
Thursday, Mar 26	Biopsychology of Psychiatric Disorders: - neurobiology of depression – part 1	Chapter 18
Monday, April 30	Biopsychology of Psychiatric Disorders: - neurobiology of depression – part 2	Chapter 18
Wednesday, April 1	Biopsychology of Psychiatric Disorders: - schizophrenia: part 1- neurodevelopmental theory	Chapter 18
Thursday, April 2	Biopsychology of Psychiatric Disorders: - schizophrenia: part 2 - dopamine theory; brain damage	Chapter 18