

PSYC 370 – Brain and Behaviour II – 2019

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

Office Hours: Fridays 4:00-5:00

Teaching Assistant: Steve Lamontagne
Office: TBA
Email: 9sjl7@queensu.ca

Office Hours: TBA

Teaching Assistant: Julia Morris
Office: TBA
Email: jm344@queensu.ca

Office Hours: TBA

Text: Biopsychology (8th, 9th or 10th edition)
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
Tuesday, Feb 5	Midterm Exam I	Section 1- Chapters 9, 10, 16 (general exam format, see below)	25%
Tuesday, Mar 12	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 Chapter 11) (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, INCLUDING MATERIAL FROM PAGES THAT DO NOT APPEAR ON THE RECOMMENDED READING LIST.** That list is purely meant to help you prepare for the lectures.

NOTE: There are **NO MAKEUP EXAMS FOR THE TWO MIDTERMS.** Excused absences (e.g., illness, family crisis) from the midterm must be documented. The weight of 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.

PSYC Departmental Policy on Missed Final Exams

Students who cannot write an exam during the December or April exam period due to a serious, extenuating circumstance (illness, death in the family) must follow the steps below to be eligible, and be available to write a deferred exam during the PSYC department's *Make up Exam period*: January 13/14th, April 28/30th, or September 14/15, 2012.

1. Obtain permission from their instructor to write a sdeferred exam. This requires notifying your instructor in advance or, under extraordinary circumstances, within 72 hours after, the exam, with appropriate documentation¹. Please use the *Request for an Exam Deferral* form found on our website or from the UG office and attach your documentation.
2. Complete and return the instructor-signed *Permission for an Incomplete Grade* form available on the Arts and Science website and return it to the UG office.
http://www.queensu.ca/artsci/sites/default/files/Permission_for_an_incomplete_grade%2021jan2011.pdf
3. Be available to write the makeup exam during the first available PSYC *Make up Exam period*: January 13/14th, April 28/30th, or September 14/15, 2012.

NOTE: Students who do not write the makeup exam are advised to drop the course. If a student cannot write the makeup exam due to a serious extenuating circumstance for which they can provide new documentation, they will either be granted a second deferral by their instructor or be supported in their appeal to drop the course after the deadline though this decision rests with the Associate Dean (Studies).

Accommodation after the fact

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

Travel during exams

According to university regulations, students are expected to be available to write scheduled exams at any time during the official December and April examination periods as well as during any scheduled class times. Requests to write a make-up exam because of conflicting travel plans (e.g. flight bookings) or requests to miss an in class exam due to other plans will NOT be considered except under extraordinary circumstances. Students are advised to wait until the final exam schedules are posted before making any travel arrangements.

¹ Appropriate documentation includes a signed letter from a registered health professional, Queens HC&DS, or documentation of a death such as a bulletin from a memorial service, obituary (newspaper or online) or funeral home letter. Official documents will be copied and originals returned to the student. Note that the PSYC department randomly checks document authenticity and that fraudulent documents will be grounds for a finding of a major departure from academic integrity.

MARKING SCHEME

Psych 370 will utilize 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

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

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SECTION 1 - BRAIN PLASTICITY		
Tuesday, Jan 8	Course Organization	
Thursday, Jan 10	Development of the Nervous System: - prenatal neurodevelopment	Chapter 9 Pages 213-220
Friday, Jan 11	Development of the Nervous System: - postnatal development	Chapter 9 Pages 213-220
Tuesday, Jan 14	Development of the Nervous System - disorders of neurodevelopment: Fetal Alcohol Syndrome	Chapter 9 Pages 227-231
Thursday, Jan 17	Development of the Nervous System - disorders of neurodevelopment: Autism	supplementary
Friday, Jan 18	Brain Damage and Neuroplasticity - causes of brain damage	Chapter 10: Pages 241-247
Tuesday, Jan 22	Brain Damage and Neuroplasticity - neuropsychological diseases: epilepsy	Chapter 10 Pages 240-242
Thursday, Jan 24	Brain Damage and Neuroplasticity - neuropsychological diseases: Huntington's	Chapter 10 Page 243
Friday, Jan 25	Brain Damage and Neuroplasticity - neuropsychological diseases: Parkinson's disease	Chapter 10 Page 242
Tuesday, Jan 29	Brain Damage and Neuroplasticity - neuropsychological diseases: Alzheimer's	Chapter 10 Pages 244-246
Thursday, Jan 31	Brain Damage and Neuroplasticity - neuroplastic responses to brain damage	Chapter 10 Pages 247-256
Thursday, Feb 1	Lateralization, Language & the Split Brain: - the split brain	Chapter 16: Pages 414-422
Tuesday, Feb 5	MIDTERM EXAM 1 -BRAIN PLASTICITY	Chapters 9, 10 &16

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SECTION 2 - MOTIVATION		
Thursday, Feb 7	Hunger, Eating, and Health: - digestion and energy flow; phases of energy metabolism	Chapter 12 Pages 288-290
Friday, Feb 8	Hunger, Eating, and Health: - neural regulation of hunger and satiety	Chapter 12 Pages 297-301
Tuesday, Feb 12	Hunger, Eating, and Health: - obesity	Chapter 12 Pages 305-309
Thursday, Feb 14	Hunger, Eating, and Health: - eating disorders: anorexia	Chapter 12 Pages 309-312
Friday, Feb 15	Hormones and Sex - the neuroendocrine system	Chapter 13: Pages 328-333
Feb 18-23	READING WEEK	
Tuesday, Feb 26	Hormones and Sex - hormones and sexual development - disorders of sexual development	Chapter 13 Pages 320-340
Thursday, Feb 28	Hormones and Sex - neural regulation of sexual behavior	Chapter 13 Pages 334-336
Friday, Mar 1	Sleep, Dreaming, and Circadian Rhythms: - sleep physiology - sleep and learning and memory	Chapter 14 Pages 343-344
Tuesday, Mar 5	Sleep, Dreaming, and Circadian Rhythms: - sleep, the immune and lymphatic systems	No readings
Thursday, Mar 7	Sleep, Dreaming, and Circadian Rhythms: - the circadian clock	Chapter 14 Pages 352-357
Friday, Mar 8	Sleep, Dreaming, and Circadian Rhythms: - sleep disorders	Chapter 14 Pages 360-362
Tuesday, Mar 12	MIDTERM EXAM II - MOTIVATION	Chapters 12 – 14

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SECTION 3 - DISORDERS OF COGNITION AND EMOTION		
Thursday, Mar 14	Drug Addiction and the Brain's Reward Circuits - basic principles of drug action - role of learning in drug tolerance and withdrawal	Chapter 15: Pages 384-389
Friday, Mar 15	Drug Addiction and the Brain's Reward Circuits - biopsychological theories of addiction - drug addiction and the brain's reward system	Chapter 15 Pages 384-391
Tuesday, Mar 19	Drug Addiction and the Brain's Reward Circuits - chronic drug abuse-induced changes in brain	Chapter 15 No readings
Thursday, Mar 21	Biopsychology of Emotion, Stress, and Health: - the stress response - stress and the hippocampus	Chapter 17 Pages 438-440
Friday, Mar 22	Biopsychology of Emotion, Stress, and Health: - early experience of stress - individual differences in sensitivity to stress	Chapter 17 Pages 442-443
Tuesday, Mar 26	Biopsychology of Emotion, Stress, and Health: - fear conditioning and the amygdala	Chapter 17 Pages 433-435
Thursday, Mar 28	Biopsychology of Emotion, Stress, and Health: - emotions and facial expression - brain mechanisms of human emotion; fear and the human amygdala	Chapter 17 Pages 428-430 Pages 436-438
Friday, Mar 29	Biopsychology of Emotion, Stress, and Health: - neurobiology of social bonding	Chapter 17 No readings
Tuesday, April 2	Biopsychology of Psychiatric Disorders: - schizophrenia – neurodevelopmental theory	Chapter 18 Pages 447-449
Thursday, April 4	Biopsychology of Psychiatric Disorders: - schizophrenia – dopamine theory; brain damage	Chapter 18 Pages 449-453
Friday, April 5	Biopsychology of Psychiatric Disorders: - affective disorders: depression – diathesis stress theory	Chapter 18 Pages 454-459