PSYC 370 – Brain and Behaviour II – 2022 W

Instructor: Dr. Janet Menard
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Office Hours: Fridays 2:00 - 3:00pm (please let me know if you plan to drop in; a link will be made available at OnQ)

Teaching Assistant: Ben Streatch
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TA's Virtual Office Hours: Tuesdays, 9:30-10:30; a link will be made available at OnQ

Text: Biopsychology (10th or 11th edition; Hard copy OR REVEL editions)
JPJ Pinel
Allyn and Bacon

VIRTUAL LECTURES ARE ON ZOOM. LINKS FOR LECTURES CAN BE FOUND ON THE COURSE ONQ SITE. NOTE THAT THERE ARE SEPARATE ZOOM LINKS FOR TUESDAY, WEDNESDAY, AND FRIDAY LECTURES, RESPECTIVELY.

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
February 8	Midterm Exam I	Section 1- Chapters 9, 10 (general exam format, see below)	25%
March 15	Midterm Exam 11	Section 2 - Chapters 12, 13, 14 (general exam format)	25%
	Final Exam	Section 3 - Chapters 15, 17, 18 (general exam format) Chapters 9-18 (excluding Chapters 11 & 16) (multiple choice only)	25% 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 must be chosen *before* you write the final). Contact me by email to 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, WHICH WILL RUN BETWEEN MAY 12TH-15TH 2022. 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 1rst 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*

SECTION 1 - BRAIN PLASTICITY			
WEEK 1	Tuesday, Jan 11	**Course Orientation**	
	Wednesday, Jan 12	**Development of the Nervous System** • prenatal neurodevelopment	Chapter 9
	Friday, Jan 14	**Development of the Nervous System** • postnatal development	Chapter 9
WEEK 2	Tuesday, Jan 18	**Development of the Nervous System** • disorders of neurodevelopment: Fetal Alcohol Syndrome	Chapter 9
	Wednesday, Jan 19	**Development of the Nervous System** • disorders of neurodevelopment: Autism	Chapter 9
	Friday, Jan 21	**Brain Damage and Neuroplasticity** • causes of brain damage	Chapter 10
WEEK 3	Tuesday, Jan 25	**Brain Damage and Neuroplasticity** • neurological diseases: Epilepsy	Chapter 10
	Wednesday, Jan 26	**Brain Damage and Neuroplasticity** • neurological diseases: Huntington's	Chapter 10
	Friday, Jan 28	**Brain Damage and Neuroplasticity** • neurological diseases: Parkinson's disease	Chapter 10
WEEK 4	Tuesday, Feb 1	**Brain Damage and Neuroplasticity** • neurological diseases: Alzheimer's	Chapter 10
	Wednesday, Feb 2	**Brain Damage and Neuroplasticity** • responses to nervous system damage	Chapter 10
	Friday, Feb 4	**TBA**	
WEEK 5	**Tuesday, Feb 8**	**MIDTERM EXAM 1 -BRAIN PLASTICITY**	**Chapters 9/10**

SECTION 2 – MOTIVATED BEHAVIOURS			
WEEK 5	Wednesday, Feb 9	**Hunger, Eating, and Health:** • digestion, energy storage, and energy utilization	Chapter 12
	Friday, Feb 11	**Hunger, Eating, and Health:** • neural regulation of hunger and satiety	Chapter 12
WEEK 6	Tuesday, Feb 15	**Hunger, Eating, and Health**: • human obesity	Chapter 12
	Wednesday, Feb 16	**Hunger, Eating, and Health**: • eating disorders: anorexia	Chapter 12
	Friday, Feb 18	**Hormones and Sex** • the neuroendocrine system	Chapter 13:
(Feb 21-25) – FAMILY DAY & READING WEEK			
WEEK 7	Tuesday, March 1	**Hormones and Sex** • hormones and sexual development	Chapter 13
	Wednesday, March 2	**Hormones and Sex** • neural regulation of sexual behavior	Chapter 13
	Friday, March 4	**Sleep, Dreaming, and Circadian Rhythms:** • sleep and learning and memory	Chapter 14
WEEK 8	Tuesday, March 8	**Sleep, Dreaming, and Circadian Rhythms:** • the circadian clock	Chapter 14
	Wednesday, March 9	**Sleep, Dreaming, and Circadian Rhythms:** • sleep and the glymphatic system	Chapter 14
	Friday, March 11	**Sleep, Dreaming, and Circadian Rhythms:** • sleep disorders	Chapter 14
WEEK 9	**Tuesday, March 15**	**MIDTERM EXAM II – MOTIVATED BEHAVIOURS**	**Chapters 12/13/14**

SECTION 3 – REWARD, ADDICTION, EMOTION AND PSYCHOPATHOLOGY			
WEEK 9	Wednesday, March 16	**Drug Addiction and the Brain's Reward Circuits** • basic principles of drug action • role of learning in drug tolerance and withdrawal	Chapter 15
	Friday, March 18	**Drug Addiction and the Brain's Reward Circuits** • biopsychological theories of addiction • drug addiction and the brain's reward system	Chapter 15
WEEK 10	Tuesday, March 22	**Drug Addiction and the Brain's Reward Circuits** • chronic drug abuse-induced changes in brain	Chapter 15
	Wednesday, March 23	**Biopsychology of Emotion, Stress, and Health:** • the stress response • stress and the hippocampus	Chapter 17
	Friday, March 25	**Biopsychology of Emotion, Stress, and Health:** • individual differences in sensitivity to stress	Chapter 17
WEEK 11	Tuesday, March 29	**Biopsychology of Emotion, Stress, and Health:** • fear conditioning and the amygdala	Chapter 17
	Wednesday, March 30	**Biopsychology of Emotion, Stress, and Health:** • emotions and facial expression • fear and the human amygdala	Chapter 17
	Friday, April 1	**Biopsychology of Psychiatric Disorders:** • neurobiology of depression – part 1	Chapter 18
WEEK 12	Tuesday, April 5	**Biopsychology of Psychiatric Disorders:** • neurobiology of depression – part 2	Chapter 18
	Wednesday, April 6	**Biopsychology of Psychiatric Disorders:** • schizophrenia: Part 1- neurodevelopmental theory	Chapter 18
	Friday, April 8	**Biopsychology of Psychiatric Disorders:** • schizophrenia: Part 2 - dopaminergic theory	Chapter 18