

Concordia University

Neuropharmacology (PSYC 455)

Winter 2016

Tues. & Thurs. 1:15 – 2:30 pm, Room: SP 157 (LOY)

Professor Wayne Brake

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Office Hours: By appointment

Course Materials

Optional text: Iversen, Iversen, Bloom, Roth (2008) *Introduction to Neuropsychopharmacology*. Oxford University Press, New York. (available in LOY bookstore)

Plus....**Online text chapters** (available on Moodle)

Course Description

Prerequisite: PSYC 310, 315, 355. This course focuses on neurochemistry and neuropharmacology relating to synaptic transmission. The chemistry and pharmacology of each major class of neurotransmitters is discussed. The pharmacological and psychological bases of drug actions are also explored, to provide an understanding of pharmacokinetics, pharmacodynamics, and pharmacotherapeutics, as they relate to issues such as CNS disease, affective disorders, and the treatment of pain. This course is primarily intended for students wishing to pursue advanced graduate work in neuroscience or clinical psychology, or for those who are seeking to enter the health professions. (3 credits)

Evaluation

-Midterm	40%
-Term Paper	20%
-Final Exam	40%

Examinations will be a combination of completion (i.e. fill in the blank) and short-answer questions. Examinations will test your knowledge of subjects presented in the texts, but mostly subjects covered in lectures. There will be material covered in lecture that is not in the text. You are responsible for **all** material in each lecture. **There will be no supplemental examinations.** The only permissible reason for missing an examination will be medical illness substantiated by a medical certificate. There is no permissible reason for a late term paper. The term paper will be docked 10% per day for every day it is late. So get started early!

The system for final grades is as follows:

94-100%	A+	67-69%	C+
86-93%	A	63-66%	C
80-85%	A-	60-62%	C-
77-79%	B+	50-59%	D
73-76%	B	0-49%	F
70-72%	B-		

Week	Dates	Topic	Text Chapter
1	Jan 7, 12, 14	Pharmacokinetics (Drug Absorp., Distrib., Metab.)	Ch. 2 & 3 (Hollinger) (Available Online)
2	Jan 19, 21	Pharmacodynamics (Dose Response Relationships)	Ch. 1 (Nestler et al.) Ch. 2 (Zastrow & Bourne) (Available Online)
3	Jan 26, 28	Neuroscience Review (Action Potentials)	Ch. 3, 4 & 5 (Bear et al.) (Available on Reserve at Vanier)
4	Feb 2, 4	Receptors	Ch. 4 (Iversen et al.)
5	Feb 9, 11	Acetylcholine (Pharmacotherapeutics of Alzheimer's)	Ch. 6 (Iversen et al.)
(term paper topic due Feb 12)			
6	Feb 16, 18	Midterm Exam (Thurs Feb 18)	
	Feb 23, 25	(NO CLASSES – Spring Break)	
7	Mar 1, 3	Excitatory Amino Acids	Ch. 5 (Iversen et al.)
8	Mar 8, 10	Inhibitory Amino Acids (Anxiolytic drugs)	Ch. 5 (Iversen et al.)
9	Mar 15, 17	The Catecholamines (Pharmacotherapeutics of ADHD)	Ch. 7 (Iversen et al.)
(term paper due Mar 19)			
10	Mar 22, 46	The Catecholamines (Antipsychotic drugs)	Ch. 7 (Iversen et al.)
11	Mar 29, 31	Serotonin (Antidepressant Drugs)	Ch. 8 (Iversen et al.)
12	Apr 5, 7	Neuropeptides	Ch. 10 (Iversen et al.)
13	Apr 12	final review	
Finals Week	FINAL EXAMINATION		(As scheduled by the University)