

PGS 388K (60505) / NEU 385L (55625) Pharmacological Mechanisms of Addiction

Description

The purpose of this course is to provide a graduate-level understanding of topics covered in course NEU 365W, by Adron Harris. The additional meeting times provide opportunities for in-depth analysis of drugs of abuse and addiction theories. This is achieved through student presentations and student-faculty discussions.

Course coordinators and instructors

Micky Marinelli (micky.marinelli@austin.utexas.edu) Office: BME 6.114A (office hours: by appointment)
Robert Messing (romessing@austin.utexas.edu) Office: BME 6.116A (office hours: by appointment)

Requirements:

Textbook: Drugs, addiction, and the brain ISBN-10: 0123869374, ISBN-13: 978-0123869371

Reading: Textbook sections prior to going to NEU 365W class (see reading schedule below, in black)

Reading: Research papers (posted at least 5 days before each class) – to read whether you present or not

Presentation: Three presentations of scientific articles papers by each student (powerpoint-style)

Attendance: NEU 365W (if you cannot attend a class let us know to get a make-up assignment)

Attendance: PGS 388K / NEU 385L (if you cannot attend a class let us know to get a make-up assignment)

Learning objectives

Upon completion of the course the student should be able to:

- Relate different animal models of addiction to substance use disorders in humans
- Present and critically evaluate research papers on the neurobiology of addiction
- Discuss current controversies and frontiers in addiction research
- Discuss current understanding of genetic risk of addiction
- Explain how understanding of neurobiology of addiction has shaped current treatment strategies

Grading: A-F

10% Exam 1 from NEW 365W

10% Exam 2 from NEW 365W

10% Exam 3 from NEU 365W

10% Exam 4 from NEU 365W

15% Presentation of research paper 1

15% Presentation of research paper 2

15% Presentation of research paper 3

15% Participation to class discussions (shows you read all papers; shares points of view for EACH class)

Class schedule

See next page

Left column shows classes from NEU 365W; right column shows classes from PGS 388K / NEU 385L

Meeting location: MBB 1.226, 10:00-11:00 AM

All classes have mandatory attendance, except those listed in pink font (please contact course directors if you cannot attend).

NEU 365W (Tues-Thurs RLM 5.104, 2:00-3:30 PM)				PGS 388K / NEU 385L (Wed MBB 1.226, 10:00-11:00 AM)					
Day	Date	Topic	Instructor	Textbook	Day	Date	Topic	Instructor	Presenter
Tue.	19-Jan	What is Addiction?	R.A. Harris	pp.1-30	Wed.	20-Jan	Introduction and course overview	M. Marinelli / R. Messing	Micky/Bob
Thu.	21-Jan	Principles of pharmacology	R.A. Harris	pp.30-67	Wed.	27-Jan	Prep for Exam 1	N/A	N/A
Tue.	26-Jan	Guest: Neurobiology & social recovery	S. Castedo		Wed.	3-Feb	Choosing and presenting papers	M. Marinelli	Micky
Thu.	28-Jan	Animal models	R.A. Harris	pp.67-93	Wed.	10-Feb	Animal models or Alcohol	M. Marinelli	TBD Student
Tue.	2-Feb	Alcohol	R.A. Harris	pp.173-221	Wed.	17-Feb	Topic of choice	M. Marinelli	TBD Student
Thu.	4-Feb	Alcohol (continued) & Review for Exam 1	R.A. Harris	pp.173-221	Wed.	24-Feb	Psychostimulants	M. Marinelli	TBD Student
Tue.	9-Feb	Exam 1	N/A		Wed.	2-Mar	Prep for Exam 2	N/A	N/A
Thu.	11-Feb	Alcohol and Worms	J.P. Shimomura		Wed.	9-Mar	Cannabinoids	M. Marinelli / R. Messing	TBD Student
Tue.	16-Feb	Sedatives	R.A. Harris		Wed.	16-Mar	Spring break	N/A	N/A
Thu.	18-Feb	Psychostimulants	M. Marinelli	pp.93-133	Wed.	23-Mar	Topic of choice	M. Marinelli / R. Messing	TBD Student
Tue.	23-Feb	Psychostimulants (continued)	M. Marinelli		Wed.	30-Mar	Nicotine	M. Marinelli / R. Messing	TBD Student
Thu.	25-Feb	Inhalant and solvent abuse	J. Mihic		Wed.	6-Apr	Prep for Exam 3	N/A	N/A
Tue.	1-Mar	Review for Exam 2	N/A		Wed.	13-Apr	Opioids	M. Marinelli / R. Messing	TBD Student
Thu.	3-Mar	Exam 2	N/A		Wed.	20-Apr	Topic of choice	M. Marinelli / R. Messing	TBD Student
Tue.	8-Mar	Cannabinoids	R.A. Harris	pp.261-310	Wed.	27-Apr	Genetics & Genomics	I. Ponomarev	TBD Student
Thu.	10-Mar	Cannabinoids (continued)	R.A. Harris	pp.261-310	Wed.	4-May	Prep for Exam 4	N/A	N/A
Tue.	15-Mar	Spring break	N/A						
Thu.	17-Mar	Spring break	N/A						
Tue.	22-Mar	Nicotine	R.A. Harris	pp.221-258					
Thu.	24-Mar	Hot topics	G. Robinson						
Fri.	25-Mar	FRIDAY SEMINAR 1-2PM Etter-Harbin Alumni Center	M. Morales						
Tue.	29-Mar	Review of seminar speaker M. Morales							
Thu.	31-Mar	Opioids	R.A. Harris	pp.133-171					
Tue.	5-Apr	Review for Exam 3	N/A						
Thu.	7-Apr	Exam 3	N/A						
Mon.	11-Apr	MONDAY SEMINAR 3-4PM NHB 1.720	T. Foroud						
Tue.	12-Apr	Review of seminar speaker T. Foroud							
Thu.	14-Apr	Hot topics	M. Pomrenze						
Tue.	19-Apr	Hallucinogens	R.A. Harris						
Thu.	21-Apr	Genetics and Genomics	R.A. Harris	pp. 310-335					
Mon.	25-Apr	MONDAY SEMINAR 3-4PM NHB 1.720	L. Parsons						
Tue.	26-Apr	Review of seminar speaker L. Parsons							
Thu.	28-Apr	Medications and Treatment	R.A. Harris	pp. 310-335					
Tue.	3-May	Review for Exam 4	N/A						
Thu.	5-May	Exam 4	N/A						