

Neuroscience Seminar: The Politics of Drugs  
Spring 2017, PSYC 6355/4353 Breadth Seminar in Neuroscience

Wednesdays 6:00-8:50pm

**Instructor:** Katherine M. Serafine, Ph.D.

**Office:** Psychology 216B

**Office hours:** TBD

**Course Description:** Neuroscience Seminar (PSYC – 6355/4353): Advanced study of contemporary problems and issues in selected topics in neuroscience.

This specific seminar course will examine the multiple forces that influence the “Politics of Drugs”, including neurobiological factors, social factors, medical factors, economic factors, etc. that contribute to drug scheduling and availability.

**Books:**

- 1) Forces of Habit by David T. Courtwright (Harvard University Press, 2001)
- 2) Molecular Neuropharmacology by Nestler, Hyman, Holtzman and Malenka (McGraw Hill, 2015) (only selected chapters\* I will scan and provide this to you electronically)
- 3) Suffer the Children: The Story of Thalidomide by the Sunday Times (Viking Press, 1979) \* note that this book can be hard to find. I have additional copies available for borrowing, if you are unable to purchase one. Please do not spend over \$50 on this book.
- 4) The Cigarette Century by Allan M. Brandt (Basic Books, 2007)
- 5) Our Daily Meds by Melody Petersen (Sarah Crichton Books, 2008)

**Overview and Objectives:** What we will be doing over the term is reading these books, discussing their content and thinking about their message in the context of current literature in neuroscience, and current events (e.g., legalization of medical marijuana in the United States). Your role in this class is to read, discuss and think. These readings include topics in the neurobiology of drug abuse, as well as the important historical events leading up to the creation of the Food and Drug Administration in the United States and specific changes in drug scheduling through the Drug Enforcement Agency. In addition to drug abuse, the latter portion of this course will also cover prescription drug use and availability and overview current timeline/requirements of testing phases for drugs in clinical trials. Throughout the semester, you have to read, discuss and think. Reading without discussing doesn't count. Discussing without reading is not encouraged. Thinking without reading and discussing will be obvious.

**Course Schedule:**

Jan 17	Introduction to Neuropharmacology: Drugs and the Brain (Chapter 1-3 from <u>Molecular Neuropharmacology</u> )
Jan 24	The Biology of Addiction: Reward Pathways (Chapter 16 from <u>Molecular Neuropharmacology</u> )
Jan 31	<u>Forces of Habit</u> (Pages 1-207)
Feb 7	<u>The Cigarette Century</u> (Pages 1-210)
Feb 14	<u>The Cigarette Century</u> (Pages 211-315)
Feb 21	<u>The Cigarette Century</u> (Pages 319-505)
Feb 28	Pharmacotherapeutics and the Biology of Psychological Disorders (Chapters 15 and 17 of <u>Molecular Neuropharmacology</u> ).
Mar 7	<u>Our Daily Meds</u> (Pages 3-172)
Mar 14	Spring break

Mar 21	<u>Our Daily Meds</u> (Pages 173 – 335)
Mar 28	<u>Suffer the Children</u> (Pages 1-159)
Apr 4	<u>Suffer the Children</u> (Pages 1-159)
Apr 11	Presentations: Case history (beyond the books)
Final Exam week	– paper due/flex time for presentations

**Expectations and Assignments: Note that this course is cross listed. Below expectations are required for all graduate students. Undergraduates will be required to do items 1-4 and 6 only (not item 5). Undergraduates will have some other assessment (TBD, likely a group project/presentation) in place of item 5.**

- 1) For the first class, you need to come to class having read the three chapters on the biology of drug effects (Chapters 1-3 from Molecular Neuropharmacology by Nestler et al.). Be prepared to engage in a conversation about how drugs impact the brain as we introduce the concepts of neuroscience and pharmacology (e.g., neuropharmacology).
- 2) Starting on the second week of classes, before each class (no later than Monday at 5pm), you need to turn into me (via e-mail) five issues from each assignment (noting page numbers). These can be questions, points of clarification, relation to other readings you have done, etc. Since you are doing this before each class, you should come prepared to bring your issues up in class for discussion.
- 3) You have to be in class, i.e., attendance is required.
- 4) On March 7 by 5pm you will need to submit via e-mail a paragraph describing the topic that you have chosen for your Independent analysis: Case history (beyond the books). You will also need to provide five references on this topic that you will be including in your final paper.
- 5) On April 11, each student will present a brief case study based on their independent paper. Details on the presentation requirements to follow (and if there are enough students requiring two class periods dedicated to this, we will adjust the syllabus accordingly or utilize the final exam time for additional presentations).
- 6) During the final exam (and no later than the exact end of the final exam time) you will need to submit via e-mail your final paper on the Independent analysis: Case history (beyond the books). The paper is limited to five pages (double spaced). Images can be included but will not count in the page limit.

**Grading:** Final Grade will be calculated out of 100 points

20 pts - Daily “issues” assignment (2 pts each/ 10 assignments)

5 pts - Attendance

20 pts – Paper topic

25 pts – Presentation

30 pts – Final paper