In this course, we will review key studies on addiction, choice, and motivation. The goal is to come to a better understanding of the nature of addiction. In my view, this requires that we also address two general issues regarding behavior: (1) the relationship between biology and behavior and (2) the nature of voluntary behavior. For example, what are the implications of research showing strong genetic influences on religious beliefs? How is it possible for genes to influence beliefs? Do these findings, although well-established, imply the apparently nonsensical conclusion that religious beliefs are involuntary? The course topics include:

1. the characteristics of addiction as revealed in biographies, epidemiological studies, and ethnographies
2. drug effects
3. brain plasticity
4. OCD
5. genetic influences on behavior
6. motivation and reward
7. choice - focusing on processes that yield suboptimal outcomes
8. popular and scientific understandings of voluntary behavior
9. the influence of cultural values on motivation and choice.

Most readings will be available at course web site. A few readings may be added to the current syllabus later in the semester.

Course requirements as percentage of final grade:
1. Seven short (1-2 page) weekly reflection papers on course readings (30%). Reflection papers not submitted by the beginning of the class period will not be accepted.
2. One slightly longer integrative (approximately 5 pages) on class readings (10%)
3. Class participation, including a group oral report (10%)
4. Term paper, 9 to 12 pages in length, at the end of the semester (50%).

Important dates:
November 4     Integrative reaction paper due. Details will be provided in class.
December 10    Last day for feedback on term paper.
December 17    Term paper due.
MBB 95 Lecture topics and reading assignments

September 2
Introduction to course: some historical observations on the meaning of “addiction,” the standard definition in current clinical practice and research, course mechanics.

September 9
An overview of addiction: selections from the history of drug use and addiction, biographical accounts, epidemiology


September 16
Heroin the (once) prototypical addictive drug


September 23
Stimulant use


September 30
Do illicit drugs induce cognitive deficits? Brain plasticity


October 7
Heredity, alcoholism and gene expression


October 14
Gene expression, alcoholism and AA, continued


October 21

**Obsessive-compulsive disorder**


October 28

**Drug subjective effects**

Readings on craving will be added.


November 4

**Reinforced behavior and choice**

**Integrative reaction paper due by start of class, details of assignment provided in class.**


**November 11**  
Choice, rationality, drug use


**November 18**  
Choice, appetites and society, and prisoner’s dilemma

Heyman: Chapter 7


**December 2**  
Treatment and drug policy


**Paper due dates**  
12/10/10 Last day to turn in a draft of final paper for feedback.  
12/17/10 Final paper due.