

**COURSE SYLLABUS**  
**PSYC W2460: Drugs & Behavior**  
**Meeting Time: Monday & Wednesday 9:10-10:25 am, Room 501 Schermerhorn Hall**  
**Columbia University**  
**Fall 2009**

**Instructor:** Professor Carl L. Hart  
**Office Locations:** Room 316 (Schermerhorn Hall) and Room 3500 (NY State Psychiatric Institute)  
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<b>Teaching Assistants</b>	<b>email</b>	<b>Office Hours</b>
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**Course Description.** This course examines the use of psychoactive drugs, using this topic to explore human behavior: from the interactions between chemicals and neurons to the psychological and physiological effects on the individual to the impact on society; we will touch on topics relating to biology, pharmacology, chemistry, anthropology, history, sociology, and political science. The effects of psychoactive drug use on the brain and on behavior will help us to understand human behavior in a biological context; the effects of psychoactive drug use on society will help us to understand the behavior of social and political groups and how they influence the individual.

**Required Text.** *Drugs, Society, & Human Behavior* (2008), 13<sup>th</sup> Edition, by C.L. Hart, C. Ksir, and O. Ray (available at the Columbia Bookstore, Amazon.com, BN.com)

**Supplemental Readings.** Although the textbook gives a general overview of topics discussed in class, scientific articles and chapters from other texts will also be assigned. These readings will focus on specific issues or present a particular theoretical perspective. Copies of articles are available on Courseworks.

1. Brecher EM (1972). How to launch a nationwide drug menace. In: *The Consumers Union Report on Licit and Illicit Drugs*. Little Brown & Co, Boston, pp. 321-334.
2. Griffiths RR, Richards WA, McCann U, Jesse R (2006). Psilocybin can occasion mystical-type experiences having substantial and sustained personal meaning and spiritual significance. *Psychopharmacology*, 187, 268-83.
3. Hart CL, Ward AS, Haney M, Nasser J, Foltin RW (2003) Methamphetamine attenuates disruptions in performance and mood during simulated night shift work. *Psychopharmacology* 169, 42-51.
4. Hart CL, Krauss RM (2008) Human drug addiction is more than faulty decision-making. *Behavioral and Brain Sciences* (Invited Commentary) 31, 448-449.

5. Johanson CE, Frey KA, Lundahl LH, Keenan P, Lockhart N, Roll J, Galloway GP, Koeppe RA, Kilbourn MR, Robbins T, Schuster CR (2006). Cognitive function and nigrostriatal markers in abstinent methamphetamine abusers. *Psychopharmacology*, 185, 327-338 (**Recommended**).
6. Juliano LM, Griffiths RR (2004). A critical review of caffeine withdrawal: empirical validation of symptoms and signs, incidence, severity, and associated features. *Psychopharmacology*, 176, 1-29.
7. Mauer M (2006). The war on drugs and the African American community. In: M Mauer. *Race to Incarcerate*. The New Press: New York, pp. 157-176.
8. Moore, Zammit, Lingford-Hughes, Barnes, Jones, Burke, & Lewis (2007). Cannabis use and risk of psychotic or affective mental health outcomes: a systematic review. *Lancet*, 370, 319-328
9. Nadelmann E (2007). Think Again: Drugs. *Foreign Policy*. Sept/Oct 2007
10. Oviedo-Joekes E, Brissette S, March DC, Lauzon P, Guh D, Anis A, Schechter MT (2009) Diacetylmorphine versus methadone for the treatment of opioid addiction. *The New England Journal of Medicine*, 361, 777-786.
11. Ricaurte GA, Yuan J, Hatzidimitriou G, Cord BJ, McCann UD (2002). Severe dopaminergic neurotoxicity in primates after a common recreational dose regimen of MDMA ("ecstasy"). *Science*, 297, 2260-2263.
12. Thompson PM, Hayashi KM, Simon SL, Geaga JA, Hong MS, Sui Y, Lee JY, Toga AW, Ling W, London ED (2004). Structural abnormalities in the brains of human subjects who use methamphetamine. *Journal of Neuroscience*, 24, 6028-6036.
13. Turner EH, Matthews AM, Linardatos E, Tell RA, Rosenthal R (2008). Selective publication of antidepressant trials and its influence on apparent efficacy. *New England Journal of Medicine*, 358, 252-260.
14. Volkow ND, Fowler JS, Wang GJ, Swanson JM, Telang F (2007). Dopamine in drug abuse and addiction: results of imaging studies and treatment implications. *Archives of Neurology*, 64, 1575-1579.

**Classes and Examinations.** This course will consist mainly of lectures, which will provide a more in-depth analysis of issues covered in the readings as well as information not covered in the readings. Lectures are divided into six sections; there will be three exams consisting of multiple-choice, short answer, and essay questions. The first exam will cover sections 1 & 2 and associated readings and the second exam will cover sections 3 & 4 and associated readings. Although the final exam will focus primarily on sections 5 & 6 and associated readings, it will also cover materials cumulatively for the entire course. In addition, there will be unannounced quizzes that will be completed during class. Quizzes will consist of short answer and essay questions based on the previous lecture and on the assigned reading(s). If you are not present at the time a quiz is given you will receive a zero on that quiz. To make up for this draconian policy, however, I will drop your lowest 2 quizzes. Thus, if you miss two quizzes, those zeroes will be dropped.

	<b>Percentage of grade</b>
First and Second Exams	25% each
Cumulative Final Exam	40%
Unannounced Quizzes	10%

**Grading Scale.**

97-100% -	A+
93-96% -	A
90-92% -	A-
87-89% -	B+
83-86% -	B
80-82% -	B-
77-79% -	C+
73-76% -	C
70-72% -	C-
60-69.9% -	D
Below 60% -	F

Because of the size of this class, it will not be possible to schedule alternative exam times for students who have difficult examination schedules, travel plans, etc. An unexcused absence from any of the exams will result in a grade of F on that exam. To be excused from an exam you must personally notify Prof. Hart before the exam and must present some evidence certifying the legitimacy of your absence (e.g., doctor's note). Make-up exams will be composed of short answer and essay questions primarily, and will be completed no later than one week following the missed scheduled exam.

## ***Class Schedule.***

<u>Dates</u>	<u>Readings</u>	<u>Lecture Topics</u>
<i>Section 1: Impact of psychoactive drug use on U.S. society</i>		
9-9-09		Introduction
9-14-09	Text: Chapter 1 Brecher 1972	Measuring the extent of drug use
9-16-09	Text: Chapter 2	Drug use as deviant behavior
9-21-09	Text: Chapter 3 Nadelmann 2007	Drug control: A police state or moderation?
9-23-09	Mauer 1999: pages 157-176 Text: pages 126-27 ( <b>Drugs in the Media</b> )	War on Drugs: Race matters <i>Short video: Tulia, TX</i>
<i>Section 2: Determining how psychoactive drugs work</i>		
9-28-09	Text: Chapter 4 Volkow et al. 2007 Handout	Dopamine pathways, nerve cells & neurotransmission
9-30-09	Thompson et al. 2004 <i>Recommended Readings:</i> Johanson et al. 2006	Brain Teasers: What's in a pretty picture?
10-5-09	Text: Chapter 5	Pharmacokinetics: alcohol and marijuana
10-7-09	Ricaurte et al. 2002	An introduction to critical thinking in science: seminar-style discussion
<i>Section 3: Uppers and Downer</i>		
10-12-09	<b>EXAM 1</b>	
10-14-09	Text: Chapter 6 Hart et al. 2003	Methamphetamine: A good drug gone bad
10-19-09	Text: Chapter 7	Is there a safe sedative?
10-21-09	Text: Chapter 8 Turner et al. 2008	Do antidepressant medications work?
10-26-09	TBA	Contemporary issues in Psychopharmacology

*Section 4: Psychoactive drugs deemed acceptable by U.S. society*

10-28-09	Text: Chapter 9	Alcohol: environment, genetics, & pharmacology
11-2-09	<b>Academic Holiday (no class)</b>	
11-4-09	Text: Chapter 10	Tobacco: Agricultural product or dependence-producing killer?
11-9-09	Text: Chapter 11 Juliano and Griffiths 2004	Caffeine: helpful or harmful?
11-11-09	Text: Chapter 12	New ingredients, same drug?
11-16-09	<b>EXAM 2 (non-cumulative)</b>	

*Section 5: America's most restricted drugs*

11-18-09	Hart and Krauss 2008	Studying substance abusers: impulsivity tasks
11-23-09	Text: Chapter 13 Oviedo-Joekes et al. 2009	Heroin chic and prescription opioid mystique Giving heroin to heroin abusers?
11-25-09	Text: Chapter 14 Griffiths et al. 2006	Hallucinogens: in search of Spirituality
11-30-09	Text: Chapter 15	Marijuana: basic behavioral pharmacology
12-2-09	Moore et al. 2007	The new reefer madness
12-7-09	Text: Chapter 16	Drug use by athletes: why do we care?

*Section 6: Prevention and Treatment*

12-9-09	Text: Chapter 17	Preventing substance abuse: what does and doesn't work?
12-14-09	Text: Chapter 18	Treating substance abuse: what does and doesn't work?
12-23-09 9:00 – 12:00 pm	<b>FINAL EXAM (cumulative)</b>	

***Note:** Aspects of this course may be changed if unforeseen circumstances arise; these changes, however, will be announced before they are initiated.*