# SYLLABUS: DRUGS AND BEHAVIOR (PSYc1250-02)

**Instructor:** Dr. Denise Jackson  
**Semester:** Fall, 2015  
**Schedule:** MWR 8:00-9:05  
**Location:** 030 BK  

*(Syllabus revision date: xx-xx-xx)*

**Lecture Schedule:**

**Note:** The numbers preceding the dates (x-x) refer to the Exam # - Lecture # for that topic description. For example, 1- refers to Exam 1–Lecture 1 and 3-2 refers to Exam 3-Lecture 2.

## START OF MATERIAL FOR EXAM 1

<table>
<thead>
<tr>
<th>x-x</th>
<th>Date</th>
<th>Topics</th>
<th>Assigned Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Chapter 1: Drugs and Behavior Today</strong></td>
<td></td>
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<td></td>
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<td><strong>Th 9/3</strong> First day of “I am Here” registration for fall classes</td>
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<td><strong>Tu 9/8</strong> Last day of online “I am Here” registration for fall classes. Fall registrations will be dropped at 4 PM for students who do not participate in “I am here” registration or clear registration holds.</td>
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<tr>
<td>1-1</td>
<td>W 9/9</td>
<td>Drugs in our society/Social aspects of drug use/What are drugs? Types of drug use/History of drug use</td>
<td>pgs 1-10</td>
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<tr>
<td>1-2</td>
<td>Th 9/10</td>
<td>History of drug use/ Current attitudes about drugs</td>
<td>pgs 10-14</td>
</tr>
<tr>
<td>1-3</td>
<td>M 9/14</td>
<td>USA patterns of drug use/ Risk and protective factors on drug use</td>
<td>pgs 14-19</td>
</tr>
<tr>
<td>1-4</td>
<td>W 9/16</td>
<td>Risk and protective factors on drug use/ Present-day drug concerns</td>
<td>pgs 19-24</td>
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</tbody>
</table>

**Chapter 2: Drug Taking Behavior: The Personal and Social Issues**

|     |      | **Th 9/17** Last day of online class adds for fall classes |                  |
|     |      | **1-5 Th 9/17** Drug Actions and Dangers from using drugs (Toxicity) | pgs 28-33        |
|     |      | Pharmacological uses of drugs/ Dose-response curves |                  |
| M 9/21 |      | Class cancelled |                  |
|       |      | **Tu 9/22** Last day to elect “pass/fail” for fall classes (Dr. Jackson will extend to October 30th for this course!) |                  |
| 1-6 | W 9/23 | Drug abuse warning network (emergency department-ED visits) Drug-related deaths/ Acute and chronic toxicity | pgs 33-36        |
| 1-7 | Th 9/24 | Drug tolerance and overdose/Physical and Psychological dependence Animal model of drug dependence/Special circumstances in drug abuse Drugs, violence, and crime/drug schedules 1-5 *Governmental policy/Drug law enforcement *(Read independently)* | pgs 37-48        |

## START OF MATERIAL FOR EXAM 2

**M 9/28** **EXAM 1 **** Exam 1 will cover pgs 1-54. You are responsible for all lecture notes, slides, and handouts related to these pages. You can use end of chapter summaries and key words as a partial study guides for exam 1. There will only be a few questions on content on pgs 48-54.

## START OF MATERIAL FOR EXAM 2

**Chapter 3: How Drugs Work in the Body and on the Mind**

**Tues 9/29** Last day to drop a fall 2015 class without a “W” grade

| 2-1 | W 9/30 | How drugs enter the body *(Read independently-You will be tested on this content)* | pgs 60-64 |
|     |       | ADME=absorption, distribution, metabolism, and excretion of drugs/Factors regulating behavioral impact of drugs/Cross Tolerance and Dependence/Variability in drug effects | pgs 64-69 |
Th 10/1 Last day to file a Final Exam Conflict Form for fall classes

2-2 Th 10/1 Parts of the nervous system (PNS & CNS) pgs 69-72

2-3 M 10/5 Parts of the nervous system (Understanding the brain) pgs 72-74

2-4 W 10/7 Introducing neurons/Neurotransmitters, receptors, reuptake sites/Electrical and chemical communication between neurons/ *Lots of additional information will be presented so don’t miss class pgs 74-76

2-5 Th 10/8 Major neurotransmitters-Acetylcholine/Catecholamines *Lots of additional information will be presented so don’t miss class pgs 76-77

M 10/12 Columbus Day (No classes)

2-6 W 10/14 Major neurotransmitters - catecholamines (DA, NE, and E) *Lots of additional information will be presented so don’t miss class pgs 77

2-7 Th 10/15 Major transmitters - serotonin, glutamate, GABA, & Opioids *Lots of additional information will be presented so don’t miss class pgs 78

2-8 M 10/19 Continued

W 10/21 EXAM 2**** Exam 2 will cover pgs 60-78. You are responsible for all lecture notes, slides, and handouts related to these pages. You can use end of chapter summary and key words as a partial study guide for this exam. There will be questions on material you read independently (pgs 60-64)

START OF MATERIAL FOR EXAM 3

Chapter 3: How Drugs Work in the Body and on the Mind (Continued)

3-1 Th 10/22 Variables mediating psychoactive drug effects/ Physiological aspects of drug taking behavior/ Role of neuronal adaptations during drug tolerance *Lots of additional information will be presented so don’t miss class pgs 78-81

3-2 M 10/26 Impact of the limbic system (nucleus accumbens and dopamine) on psychological and physiological dependence - What’s drugs got to do with it? The placebo effect /Addiction pgs 81-85

Chapter 4: The Major Stimulants: Cocaine and Amphetamine

3-3 W 10/28 History of cocaine/ Forms of cocaine/ Acute and chronic effects of cocaine Medical uses of cocaine pgs 89-96

3-4 Th 10/29 x-x Date Neuropathological actions of cocaine/Anatomical locations for cocaine’s actions/ Cocaine forms Topics AssignReading ed pgs 96-99 ed

3-5 M 11/2 Cocaine abuse Cocaine abuse patterns /Treatment for cocaine abuse Types of amphetamines/History of amphetamines/Neuronal actions of amphetamines Acute and chronic effects of amphetamines 100-105

3-6 W 11/4 High-light on methamphetamine abuse/Treatment for abuse of amphetamines ADHD definition and stats/Use of amphetamines in treatment of ADHD/ Paradoxical stimulant treatment for ADHD /Stimulants and cognitive enhancement pgs 105-111

Th 11/5 EXAM 3**** Exam 3 will cover pgs 78-111. You are responsible for all lecture notes, slides, and designated text pages. You can use end of chapter summaries and key words as a partial study guide for exam 3.
START OF MATERIAL FOR EXAM 4

Chapter 7: Marijuana
4-1 M 11/9  Psychoactive substances in marijuana/History of marijuana/Physiological, Behavioral and Psychological Effects of Marijuana, Anandamide, And (THC intake THC metabolites and detection)  pgs 167-175
*Additional information will be presented so don’t miss class

W 11/11  Veteran’s Day (No Classes)

4-2 Th 11/12  Effect of marijuana on the brain/Anandamide and THC, CB1 and 2 receptors, Brain CB1 receptor localization and behavioral effects of marijuana, anandamide’s action on neuron terminals, retrograde transmission,  pgs 175-176
*Additional information will be presented so don’t miss class

M 11/16  Spring registration for continuing students begins
4-3 M 11/16  Tolerance, withdrawal, and marijuana dependence/ Chronic effects of marijuana Fast and slow receptors/More on slow receptors-Adenylate Cyclase second messenger Mechanism of THC inhibition of neurons  pgs 176-179
*Additional information will be presented so don’t miss class

4-4 W 11/18  Chronic Effects of Marijuana/Gateway hypothesis  pgs 176-181

4-5 Th 11/19  Tolerance/ Gateway hypothesis/ Association & Causation Questions/Medical Marijuana  pgs 176-186

4-6 M 11/23  Marijuana Debate In-Class Debate. Awarded points will be applied to your final summed grades

11/W25-Th29  Thanksgiving Break (No Classes)

M 11/30  EXAM 4****Exam 4 will cover pgs 99-111 and pgs 167-176. Note that there is a fair amount of marijuana information that is not covered in the book. You are responsible for all lecture notes, slides, and designated text pages. You can use end of chapter summaries and key words as a partial study guide for this exam.

START OF MATERIAL FOR EXAM 5

Chapter 5: Opioids: Opium, Heroin, and Opioid Pain Medications
5-1 W 12/2  History of opium and opioid drugs  pgs 118-126

5-2 Th 12/3  Effects of Opiates on Mind and Body/How opiates work in the brain  pgs 126-129
*Additional information will be presented so don’t miss class

5-3 M 12/7  Continued/Heroin Abuse/ Heroin Tolerance and Withdrawal/Toxicity  pgs 129-132

x-x Date  Topics  Assigned Reading
W 12/9 Last day of fall classes

5-4 W 12/9  Treatment for Opiate addiction/ Medical Uses of Opiates  pgs 132-139

Th 12/10  Last day to drop a fall class with a "W" grade
Th 12/10  Reading Day

Fri 12/11 to Fri 12/18  Final Exams Period  (Exam 5 will be given during the final exams period. This exam is not cumulative and will cover Chapter 5

Sat 12/19  Final exam makeup day for fall classes if needed
Exam 5 will cover pgs 118-139. Note that there is a fair amount of marijuana information that is not covered in the book. You are responsible for all lecture notes, slides, and designated text pages. You can use end of chapter summaries and key words as a partial study guide for this exam.

If you are unable to take exam 5 on the date listed by the registrar, the only other time you can take exam 5 is during a 7-8 AM time slot on another date during finals week (Specific date and location will be announced after the registrar final exam date is announced).

M 12/21 Grades are due by 9 AM
Tue 12/22 Grades for fall classes on myNEU (www.myneu.neu.edu)
Th 1/7 First day of online “I am Here” registration for spring classes
Fri 1/8 January degree conferral

DRUGS AND BEHAVIOR (PSYc1250)

Course Information

Fall 2015

Who Takes This Course?
The course is generally populated by first-year psychology majors, criminal justice majors, and sociology majors. Inevitably, there are a number of advanced students, proficient in neuroscience, who decide to take this course. In this latter instance, keep in mind that I am focused on teaching novices so you may want to reconsider taking this course since you will not be learning new material (see me if you have questions about this point).

Course Description
The primary goal of this course is to teach students how drugs alter the brain and how such changes impact behavior and society. There will be a heavy emphasis on drug-induced changes in neurological function. However, the course will be taught at an introductory level under the assumption that students do not have a background in biology! There will be a systematic approach examining the effects of different categories of drugs on behavior with references to history of drugs and social consequences of substance use and substance abuse.

Course Prerequisites
None

Required Textbook
Earlier editions of this book (6th and 7th editions) are very similar to the current edition. If you choose to buy any earlier edition you will need to compare content to the 8th edition on a page by page basis. A copy of the 8th edition of the textbook is on 2-hour reserve in Snell Library.

Attendance
Attendance is not mandatory but highly recommended for optimal course performance. Lectures are based on the textbook readings. Please note that you are responsible for any information I cover in lectures that is not in the book! I do not provide class notes or repeat lectures. Powerpoint slides of textbook information will be placed on blackboard, but keep in mind that this content is not comprehensive (i.e. does not include all the information you need to know). If
you miss class, it is your responsibility to get notes from classmates and review them. If you still need additional help after reviewing notes, feel free to stop by during my office hours (see below).

My Contact Information and Office Hours
I can be reached via e-mail (D.Jackson@neu.edu) or telephone (617-373-3860).
My office address is 327 Nightingale Hall (NI).

How to Reach My Office ➔ You can take the Nightingale Hall elevator or stairway up the 3rd floor. Immediately to your right after exiting the elevator is a locked door (Restricted Access - stairwell doors leading to my office are locked at all times. Call my phone extension, x3860, so I can let you in. There is a phone located next to each stairwell door. Alternatively, you can go to the Psychology Department Office (rm 125 NI) and have the staff contact me so I can direct you to my office.

Office Hours
Mondays (5:15 – 6:15 PM) and Thursdays (10:30 AM - 11:30 AM). If you are unable to meet during the office hours listed above, please arrange to see me during an alternate time via e-mail (select several available time slots keeping in mind that I am not generally available on Tuesdays or Fridays.

Exams
Exam Format: Exams will consist of multiple choice, matching, and true or false questions. Exams will be based on lecture notes and the book. There is no assigned homework for this course but it is recommended that you review material at the end of each chapter for a summary of important points that will be on the exam. Consider the key terms at the end of the chapter your study guide in addition to your class notes.

Grading
Your final grade for the course will be based on your averaged performance on 5 equally-weighted exams. The last exam (Exam 5) will be given during finals week and like the other exams is not cumulative. Grades will be calculated as follows:

\[
A = 90-100\% \\
B = 80-89\% \\
C = 70-79\% \\
D = 60-69\% \\
F = \text{less than 60}\%
\]

“+” and “-” will be used for final grade calculations. To determine grade +’s and –’s the following scale will be used:

- \(0.0 \text{ to } 3.333 = -\)
- \(3.334 \text{ to } 6.666 = \text{straight letter grade}\)
- \(6.667 \text{ to } 9.999 = +\)

For example an 83.2 final average equates to a B- grade or a 76.8 final average equates to a C+ grade.

Extra Credit
The marijuana debate provides the only opportunity for extra credit in this course. (4-10 points may be added to your summed exam scores) in addition to your earlier nominal assignment (4 point max). Course Grades are primarily based on your exam performance. It is inconceivable that extra credit will notably inflate your final course grade, so optimal performance on the exams is essential to do well in the course. There are no last minute assignments or papers that can be written for extra credit.

Once again Course Grades are primarily based on exam performance so please excuse me for not responding to e-mails asking me ways you can improve your course grade by writings papers or completing additional extra credit assignments beyond the Marijuana debate to boost your Course Grade.
Use of Blackboard
Information including grades, handouts, slides, and the syllabus will be posted to Blackboard.

The Syllabus
You should check that you are using the most recent version of the syllabus. This version can be found on Blackboard with the preface “NEW” and the date of the revision. Syllabus updates will be designated with the current revision date located in parentheses above the “Lecture Schedule and Assigned Textbook Reading section at the beginning of the document.