

BIO 115  
Fall, 2008

## DRUGS AND DRUG ABUSE

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Office Hours: W, 11:00 – 1:00, and by appointment

### *Class*

Shankweiler 440S  
MW, 1:30 – 2:45pm

### COURSE DESCRIPTION

In this course, we will engage in a cross-disciplinary study of pharmacology by appealing to biological, sociological, historical, and cultural points of reference. Our first conversations will broadly center on the ways in which Victorian, psychoanalytic, and “countercultural” traditions underpin the current narratives surrounding drug use. In parallel, we will closely examine the putative mechanisms by which drugs act in the central nervous system – and also discuss how the action of these drugs has shaped and been shaped by social structures and cultural meanings. Our concluding conversations will consider how power may define the representation of drugs in society and the resulting consequences for drug regulation.

### MAJOR COURSE QUESTIONS

As in any science course geared toward a “non-major” audience, the major goals will be to:

1. Understand the ways in which science makes arguments about the world;
2. Critically analyze data, data representations, and quantitative arguments; and
3. Develop effective writing, speaking, and critical reasoning skills.

I also believe it is of value to you to consider the complex relationship between scientific inquiry and the sociopolitical culture in which science occurs. This relationship is particularly compelling in pharmacology in which history, politics, and social behavior have clearly shaped (and continue to shape) the use and study of drugs. I have therefore framed course content around the following questions:

1. Why do we stigmatize drug use? Why do we glorify medicinal use?
2. What forces shape the cultural definition of a “normal” body or “healthy” body? And how are drugs positioned to favor or destabilize these “normal” or “healthy” states?
3. What values shape our definition of what counts as a drug?
4. What values shape our decisions to take or not take drugs?
5. What cultural understandings dictate whether a drug will be considered legal or illegal?
6. How do drugs operate within a capitalist economy? A colonial economy? A global economy?
7. How do drugs shape social relations and social identities?

### ACADEMIC BEHAVIOR CODE

All assignments are to be completed in line with the Academic Behavior Code of Muhlenberg College. By submitting work in this class, you are pledging that your work reflects academic honesty, is not plagiarized, and is representative of only your ideas. Please be sure to read the Code carefully (the complete version is in your Student Handbook).

## ASSIGNMENT SUMMARY

It is my hope that these assignments will mobilize you as scholars, get you comfortable expressing your ideas *within* the community of writers we'll be reading, and encourage you to think beyond traditional disciplines in considering the scientific and cultural issues surrounding drug use and abuse.

### Five abstracts

20 points each

The essential components of an abstract are: (1) **one** strong argument from an assigned reading and (2) **one** compelling idea/argument of your own that *responds* to the original argument. The evidence that you use to form your idea is "inspired" by the assigned reading, responds naturally by extending the ideas of the author, and may reflect stuff you've read before or in another class, your own personal ruminations, or ideas that we generate collaboratively in class discussion. A total of 7 abstracts are assigned but I will only use the **5 highest scores** in calculating your grade. Thus, you may choose to opt out of writing two abstracts, *but not the first one*.

### Focus drug scholarship

100 points

Together with a class colleague, you will be assigned a focus drug to track throughout the semester. You will be expected to act as the in-class expert on this drug, monitor the appearance of this drug in the media, and develop a set of reasoned, critical responses to the regulation and use of this drug. Your ability to represent your focus drug in class discussion will contribute significantly to your participation grade (see below). At the end of the semester, your new expertise will be fully realized in a formal written analysis. You will be expected to discuss an issue of your choosing, related to your focus drug, that you believe is critically interesting; in order to write a successful review, you must demonstrate a foundational understanding of the pharmacology and sociopolitical dimensions of its use.

### Two examinations

100 points each

Examinations will test basic assimilation of vocabulary, problem solving skills, effective writing, and critical analysis of data and argument. The first exam will be written with a 90 minute interval in mind. The second exam will occur during the Final Exam Week and will be cumulative.

### Class participation

60 points

This course depends on regular and engaged participation. **Please come to class ready to specifically discuss the assigned reading, and as relevant, your abstract and/or your focus drug.** Your fluency in discussion will be used to assign a daily participation grade; therefore, remaining silent or missing a class can significantly affect your final grade. Should you miss a class, you are responsible for obtaining any material you may have missed from your class colleagues.

## TOTAL

**460 points**

## EVALUATION

Grades will be assigned based on the sum of the total points you obtain by the end of the semester. Your score will be divided by **460 points** and will be translated into a letter grade as follows: A+ = 100-97%, A = 96-93%, A- = 92-90%, B+ = 89-87%, B = 86-83%, B- = 82-80%, C+ = 79-77%, C = 76-73%, C- = 72-70%, D = 69-60%, F = 59% and below.

## COURSE TEXTS

- Harrington A (2008) *The Cure Within: A History of Mind-Body Medicine*. W. W. Norton & Company, New York, NY. ISBN # 0-393-06563-4
- Julien RM (2007) *A Primer of Drug Action*, 11<sup>th</sup> edition. Worth Publishers, New York, NY. ISBN# 1-429-20679-9
- Schivelbusch W (1993) *Tastes of Paradise: A Social History of Spices, Stimulants, and Intoxicants*. Vintage, New York, NY. ISBN# 0-679-74438-X
- Supplementary readings available on BlackBoard

You may wish to purchase these books from online distributors (Amazon, Alibris, Half, Powells), but please make sure to order them **early** so that you have them in time to do the assigned reading.

I will often supplement your reading with excerpted text or stand-alone essays. These readings are available in pdf format on BlackBoard. Please read them, print them out at your leisure, and bring them to class on the appropriate discussion day. Additionally, all assignments will be posted on Blackboard for your reference.

## MISCELLANY

- All assignments are due on the date indicated. **I do not** grant extensions on abstracts except in case of a medical emergency (documentation required). I will *accept* late assignments but please bear in mind that they will be penalized for each day that they are past due.
- Please turn in written work with a single staple in the upper left hand corner. Make sure that your paper is typed, bears your name and the date, is paginated, uses 10, 11, or 12 point font, and has been proofread for grammar and spelling errors. You may submit your paper to me electronically if you wish, but please make sure that your formatting is standard.
- Please let me know if you have a documented learning disability that will require special accommodation. I will be glad to assist you.
- As in any public gathering, please silence all electronic gadgetry **before** coming to class.

# COURSE CALENDAR

- Readings marked with a (Δ) are available in pdf format on **BlackBoard**.
- Articles marked with a (Å) require the completion of an abstract

Monday, August 25

Introductions

Drugs and medicines reflect cultural narratives, beliefs, and values

## A. HEALTH AND UNHEALTH

Wednesday, August 27

Liberal medicine and medical politics

- (Δ) Foucault, “The Politics of Health in the Eighteenth Century”

Monday, September 1

Bio-power and medical institutions

- (Å, Δ) Foucault, “The Politics of Health in the Eighteenth Century”

Wednesday, September 3

Victorianism and pleasure

- (Δ) Foucault, “We Other Victorians”

Monday, September 8

Cycles of legitimization

- (Å, Δ) Snelders et al, “On Cannabis, Chloral Hydrate, and Career Cycles of Psychotropic Drugs in Medicine”

Wednesday, September 10

Narratives of “suggestion”

- Harrington, Chapter 1, “The Power of Suggestion”

Monday, September 15

Narratives of “right thinking”

- Harrington, Chapter 3, “The Power of Positive Thinking”

Wednesday, September 17

Borrowing narratives from the East

- (Å) Harrington, Chapter 6, “Eastward Journeys”

## B. THE SCIENTIFIC METHODS

Monday, September 22

**Focus drug preferences are solicited**

Fundamental pharmacokinetics

- Julien, Chapter 1 (pp 2-36)

Wednesday, September 24

**Focus drug assignments are made**

Pharmacodynamics I: Dose-response properties

- Julien, Chapter 2 (pp 37-57)

Monday, September 29

Pharmacodynamics II: Synaptic properties

- Julien, Chapter 3 (pp 58-88)

Wednesday, October 1

Pharmacodynamics III: Receptors

- Julien, Chapters 2 and 3 (pp 37-88)

Monday, October 6

Pharmacodynamics IV: Transporters

- Julien, Chapters 2 and 3 (pp 37-88)

Wednesday, October 8

Themes and considerations in substance abuse

- Julien, Chapter 13 (pp 366-392)

Monday, October 13

As an example: Opiates and opioids

- Julien, Chapter 9 (pp 250-286)

Wednesday, October 15

**Exam One**

**C. PLEASURE, LEISURE, AND SCIENCE**

Monday, October 20

The parallel growth of coffee and “sober” rationalism

- (Å) Schivelbusch, “Coffee and the Protestant Ethic,” Chapter 2 (pp 15-84)

Wednesday, October 22

Xanthine psychostimulants

- Julien, Chapter 8 (pp 220-228)

Monday, October 27

A gentleman must be suitably occupied: Smoking, snorting, and noblesse oblige

- (Å) Schivelbusch, “Tobacco, The Dry Inebriant,” Chapter 4 (pp 96-146)

Wednesday, October 29

Nicotine

- Julien, Chapter 8 (pp 220-228)

Monday, November 3

“The dark beverage of Hell!”

- (Å) Schivelbusch, “The Industrial Revolution, Beer, and Liquor,” Chapter 5 (pp 147-166)

Wednesday, November 5

**Focus drug proposals are due**

Ethanol

- Julien, Chapter 4 (pp 90-117)

Monday, November 10

Cocaine and the amphetamines

- Julien, Chapter 7 (pp 178-219)

Wednesday, November 12

Cocaine and the amphetamines

- Julien, Chapter 7 (pp 178-219)

Monday, November 17

**No Class – Society for Neuroscience Meeting**

Wednesday, November 19

**No Class – Society for Neuroscience Meeting**

Monday, November 24

History and regulation of cannabis use in the United States

- (Å, Δ) Schlosser, “Reefer Madness”

Wednesday, November 26

Cannabis, THC, cannabinoid receptors, anadamide

- Julien, Chapter 11 (pp 299-329)

Monday, December 1

Hallucinogens

- Julien, Chapter 12 (pp 330-364)

Wednesday, December 3

**Focus drug writing assignments are due**

Discussion and summation

Finals week, TBA

**Exam Two**