NYU Gallatin School of Individualized Study
Magic Bullets and Blockbuster Brands: Drugs, Disease, and Chemistry in the Modern World
IDSEM-UG 1911-001 (19491)
Thursdays, 6:20 PM to 9:00 PM
Silver, Room 406

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Office hours: Thursdays 4:00 PM-6:00 PM
COURSE DESCRIPTION:

What role did pharmaceutical drugs play in the shaping of the world that we currently inhabit? When and where did the key developments in drug therapy take place and how did these therapies relate to evolving understandings and definitions of disease? In what ways has the relationship between the drug industry, the state, and the university changed over time? To what extent were and are drugs and the diseases they are designed to treat embedded in the broader society and culture? What is the relationship between Western drug therapies and the global South?

This course examines these and related questions, focusing on the history of pharmaceutical drugs and related medical technology in global perspective from the nineteenth century to the present. Important biomedical advances in drug therapy—such as vaccines, vitamins, antibiotics, steroids, and antivirals—will be considered in relation to changes in the medical profession, the rise of the pharmaceutical industry, and an ongoing tension between drug marketing and state regulation. We will also consider the ways in which Western medicine relates to other medical and healing traditions. Public reaction to and expectations about scientific discovery, intellectual property and global health, and the relationship between illicit and licit drugs will also serve as unifying themes for the course.

COURSE OBJECTIVES:

* Gain a solid grasp of the content of the history of science, technology, and medicine as it relates to the course topic.
* Learn to trace and interpret key developments, themes, and issues in medical science and pharmacology from the nineteenth century to the present.
* Hone skills in thinking historically. Emphasis will be placed on the following: change over time (and continuity), causality, context, contingency, and complexity.
* Refine writing and oral presentation skills through critical engagement with various types of scholarly evidence.
* Develop the ability to analyze and debate contemporary issues through the lens of the past. This objective will require students to think along interdisciplinary as well as strictly historical lines.

COURSE STRUCTURE AND READINGS:

The class time will be structured around in-class discussion and writing assignments, small group activities, and oral presentations. Readings, films, and/or material from the Internet will be assigned for each class, and I will provide additional background information and context to facilitate productive discussion.

Most of the readings will be uploaded to NYU Classes as PDFs or will be available online. However, the following texts are required:


These books will be available for purchase at the NYU bookstore and will be on hold at the Bobst Library Reserve Desk.

**COURSE REQUIREMENTS:**

Students are expected to read, listen to, or view all the assigned material before the class meeting. Attendance and participation in discussion is mandatory and will determine 10% of your final grade. To facilitate class discussion, students will be asked to prepare reading responses on occasion. These reading responses will constitute another 10% of your final grade.

Participants in the class are required to submit two writing assignments: two 7-page papers on topics of your choice. Each of the papers will determine 35% of your final grade. The remaining 10% of your final grade will be determined by a 7-minute oral presentation based on one of your papers. Additional details concerning these papers and the oral presentation will be provided in a separate handout.

To summarize, your final grade will be calculated based on the following:

- Class participation: 10%
- Reading responses: 10%
- Paper 1: 35%
- Paper 2: 35%
- Oral presentation: 10%

**POLICIES:**

Class attendance and active participation in discussion is expected. Excessive absenteeism and/or failure to engage with the assigned reading material will have a negative impact on the class participation portion of your grade. Students who miss more than 2 classes without a valid excuse will be required to meet with me. It is possible that you will then be given a failing grade. Papers must be submitted on time. Unless you have spoken to me in advance about an extension, I will deduct 10 points for each day the paper is late.

Please be courteous to your fellow students and me by putting your phone on vibrate and refraining from talking privately. Also, please arrive on time and remain for the duration of the class. Arriving more than 15 minutes late for class will constitute an absence.

While I do not prohibit the use of laptops and tablets, I expect that you use them to facilitate active participation in the course.

If you are a student with a disability who is requesting accommodations, please contact New York University’s Moses Center for Students with Disabilities at 212-998-4980 or
mosescsd@nyu.edu. You must be registered with CSD to receive accommodations. Information about the Moses Center can be found here:


The Moses Center is located at 726 Broadway on the 2nd floor.

ACADEMIC DISHONESTY

As a Gallatin student you belong to an interdisciplinary community of artists and scholars who value honest and open intellectual inquiry. This relationship depends on mutual respect, responsibility, and integrity. Failure to uphold these values will be subject to severe sanction, which may include dismissal from the University. Examples of behaviors that compromise the academic integrity of the Gallatin School include plagiarism, illicit collaboration, doubling or recycling coursework, and cheating. Please consult the Gallatin Bulletin or Gallatin website:

http://gallatin.nyu.edu/about/bulletin/undergrad/policies/integrity.html

COURSE SCHEDULE AND READINGS

1/26, Introduction and Overview of Course, Drugs and the Definition of Health


In-Class Activity: Think about what interests you most about the topic “drugs and disease in the modern world.” Find an article that relates to your area of interest and reflect in a Gdoc on why you chose it. Also consider what questions it raises for you. The reflection should be approximately 1 paragraph in length. Place the Gdoc in a folder named “Last Name, First Name” and share the folder with me.

Break down into groups of 4-5 students and discuss what you found. Work to identify common themes, key issues and tensions, and categories of analysis. As a group, we will begin to compile an annotated bibliography based on your research.

Part 1: From Germ Theory to the “Conquest of Infectious Disease”

2/2, The Global Circulation of Disease and Materia Medica


*“William Douglass, a Boston Physician, Decries the Dangerous ‘Infatuation’ with Smallpox Inoculation,” 1722.  

**Browse the following website from the Harvard University Library Open Collections Program called “Contagion: Historical Views of Diseases and Epidemics,”

[http://ocp.hul.harvard.edu/contagion/index.html](http://ocp.hul.harvard.edu/contagion/index.html)

Read the article on “vaccination” in the general materials section.

2/9, Contagion, Miasmas, and the Rise of Germ Theory


**Return to the Harvard “Contagion” website and read the article on “Concepts of Contagion and Epidemics” in the general materials section and the article on “Cholera Epidemics in the 19th Century.

2/16, The First “Magic Bullets” and the Discovery of Penicillin


**Read the short articles on the Chemical Heritage Foundation website on Paul Ehrlich and Gerhard Domagk,

[https://www.chemheritage.org/historical-profile/paul-ehrlich](https://www.chemheritage.org/historical-profile/paul-ehrlich)

[https://www.chemheritage.org/historical-profile/gerhard-domagk](https://www.chemheritage.org/historical-profile/gerhard-domagk)

**Film: *Dr. Ehrlich’s Magic Bullet* (1940)

2/23, The Polio Virus and Vaccine

**Browse the following website from the Smithsonian National Museum of American History on polio,**

http://amhistory.si.edu/polio/virusvaccine/index.htm

Click on the “Virus and Vaccine” section and read the material under the headings “What is Polio?” and “Would a Vaccine Work?”

**Browse the “History of Vaccines” website from the College of Physicians of Philadelphia:**

http://www.historyofvaccines.org/

3/2, The Anti-vaccine Movement (Contemporary Interlude)

**Film: PBS Frontline, The Vaccine War, March 24, 2015.**

In preparation for viewing the film in class, browse the related materials on the Frontline website,

http://www.pbs.org/wgbh/pages/frontline/the-vaccine-war/

***First Paper Due***

***Group A Presentations***

**Part 2: Drugs, Disease, and Society After World War II**

3/9, Chronic Disease, Risk Reduction, and Industry Growth


3/16, Spring Recess, No Class

3/23, The Rise of Psychopharmacology


3/30, Drugs, Gender, and the Sexual Revolution

**Browse the PBS *American Experience* website for the film *The Pill*,

http://www.pbs.org/wgbh/amex/pill/index.html

4/6, The FDA: Regulation Past and Present


**Film: PBS *Frontline, Chasing Heroin* (2016).
** Film: *Happy Valley* (2008).

In preparation for viewing the film in class, browse the related materials on the *Frontline* website,

http://www.pbs.org/wgbh/frontline/film/chasing-heroin/

** Part 3: Intellectual Property, Global Inequalities, and Critiques

4/13, Big Pharma and its Critics


4/20, The Expansion of Disease Categories and the Blockbuster Drug

* Dumit, *Drugs for Life*, 55-85.

4/27, Race and Pharmacogenomics


5/4, Ethics and the Future of Drug Development

***Final Paper Due
***Group B Presentations

*End of Semester*