

# HISTORY AND PHILOSOPHY OF SCIENCE

The University offers a number of courses in the history and philosophy of science, although it does not, at this time, offer a major or concentration to undergraduates in Columbia College or General Studies. The course listings bring together a variety of courses from different disciplines, which should be of interest to anyone wishing to pursue work in the history and philosophy of science. The list is not intended to be all inclusive; students interested in the history and philosophy of science should speak to members of the committee.

## Interdepartmental Committee on History and Philosophy of Science

David Albert  
Philosophy  
706 Philosophy; 212-854-3519

Marwa Elshakry  
History  
512 Fayerweather; 212-851-5914

Karl Jacoby  
History  
424 Hamilton; 212-854-3248

Richard John  
History  
201E Pulitzer; 212-854-0547

Matthew Jones  
History  
514 Fayerweather; 212-854-2421

Joel Kaye  
History  
422B Lehman; 212-854-4350

Philip Kitcher  
Philosophy  
717 Philosophy; 212-854-4884

Eugenia Lean  
History  
925 International Affairs Building; 212-854-1742

Christia Mercer  
Philosophy  
707 Philosophy; 212-854-3190

Alondra Nelson  
Sociology  
607 Knox; 212-851-7081

Samuel Roberts  
History/Sociomedical Sciences  
322 Fayerweather; 212-854-2430

David Rosner  
History/Sociomedical Sciences  
420 Fayerweather; 212-854-4272

David Rothman  
History/Sociomedical Sciences  
622 West 168th Street; 212-305-4096

George Saliba (*emeritus*)  
Middle Eastern, South Asian, and African Studies  
312 Knox; 212-854-4166

Pamela Smith  
History  
605 Fayerweather; 212-854-7662

## Fall 2022

**HIST UN2112 The Scientific Revolution in Western Europe: 1500-1750. 4 points.**

Introduction to the cultural, social, and intellectual history of the upheavals of astronomy, anatomy, mathematics, alchemy from the Renaissance to the Enlightenment. *Field(s): EME*

**HIST UN2523 HEALTH INEQUALITY: MODERN US. 4.00 points.**

Through assigned readings and a group research project, students will gain familiarity with a range of historical and social science problems at the intersection of ethnic/racial/sexual formations, technological networks, and health politics since the turn of the twentieth century. Topics to be examined will include, but will not be limited to, black women's health organization and care; HIV/AIDS politics, policy, and community response; benign neglect; urban renewal and gentrification; medical abuses and the legacy of Tuskegee; tuberculosis control; and environmental justice. There are no required qualifications for enrollment, although students will find the material more accessible if they have had previous coursework experience in United States history, pre-health professional (pre-med, pre-nursing, or pre-public health), African-American Studies, Women and Gender Studies, Ethnic Studies, or American Studies

Fall 2022: HIST UN2523

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
HIST 2523	001/10633	M W 10:10am - 11:25am 303 Uris Hall	Samuel Roberts	4.00	48/55

**HIST GU4588 RACE, DRUGS, AND INEQUALITY. 4.00 points.**

Priority given to majors and concentrators, seniors, and juniors.

Prerequisites: the instructor's permission.

Prerequisites: the instructors permission. Through a series of secondary- and primary-source readings and research writing assignments, students in this seminar course will explore one of the most politically controversial aspects in the history of public health in the United States as it has affected peoples of color: intoxicating substances. Course readings are primarily historical, but sociologists, anthropologists, and political scientists are also represented on the syllabus. The courses temporal focus - the twentieth century - allows us to explore the historical political and social configurations of opium, alcohol, heroin, cocaine, medical maintenance (methadone), the War on Drugs, the carceral state and hyperpolicing, harm reduction and needle/syringe exchange. This semesters principal focus will be on the origins and evolution of the set of theories, philosophies, and practices which constitute harm reduction. The International Harm Reduction Association/Harm Reduction International offers a basic, though not entirely comprehensive, definition of harm reduction in its statement, What is Harm Reduction? (<http://www.ihra.net/what-is-harm-reduction>): Harm reduction refers to policies, programmes and practices that aim to reduce the harms associated with the use of psychoactive drugs in people unable or unwilling to stop. The defining features are the focus on the prevention of harm, rather than on the prevention of drug use itself, and the focus on people who continue to use drugs.[1] Harm reduction in many U.S. communities of color, however, has come to connote a much wider range of activity and challenges to the status quo. In this course we will explore the development of harm reduction in the United States and trace its evolution in the political and economic context race, urban neoliberalism, and no-tolerance drug war. The course will feature site visits to harm reduction organizations in New York City, guest lectures, and research/oral history analysis. This course has been approved for inclusion in both the African-American Studies and History undergraduate curricula (majors and concentrators). HIST W4588 will be open to both undergraduate and masters students. To apply, please complete the Google form at [https://docs.google.com/forms/d/1xaPFhQOzkl1NHnjQIen9h41iel2hXAdhV59D5wH8AQ/viewform?usp=send\\_form](https://docs.google.com/forms/d/1xaPFhQOzkl1NHnjQIen9h41iel2hXAdhV59D5wH8AQ/viewform?usp=send_form). Questions may be directed to [skroberts@columbia.edu](mailto:skroberts@columbia.edu)

Spring 2023: HIST GU4588

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
HIST 4588	001/11203	T 2:10pm - 4:00pm 302 Fayerweather	Samuel Roberts	4.00	10/15

**Spring 2023****HSAM UN2901 DATA:PAST, PRESENT AND FUTURE. 3.00 points.**

Lect: 1.5. Lab: 1.5.

Data-empowered algorithms are reshaping our professional, personal, and political realities, for good—and for bad. Data: Past, Present, and Future moves from the birth of statistics in the 18th century to the surveillance capitalism of the present day, covering racist eugenics, World War II cryptography, and creepy personalized advertising along the way. Rather than looking at ethics and history as separate from the science and engineering, the course integrates the teaching of algorithms and data manipulation with the political whirlwinds and ethical controversies from which those techniques emerged. We pair the introduction of technical developments with the shifting political and economic powers that encouraged and benefited from new capabilities. We couple primary and secondary readings on the history and ethics of data with computational work done largely with user-friendly Jupyter notebooks in Python

Spring 2023: HSAM UN2901

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
HSAM 2901	001/11863	T Th 10:10am - 11:25am 614 Schermerhorn Hall	Chris Wiggins, Matthew Jones	3.00	55/70

**HIST GU4588 RACE, DRUGS, AND INEQUALITY. 4.00 points.**

Priority given to majors and concentrators, seniors, and juniors.

Prerequisites: the instructor's permission.

Prerequisites: the instructors permission. Through a series of secondary and primary-source readings and research writing assignments, students in this seminar course will explore one of the most politically controversial aspects in the history of public health in the United States as it has affected peoples of color: intoxicating substances. Course readings are primarily historical, but sociologists, anthropologists, and political scientists are also represented on the syllabus. The courses temporal focus - the twentieth century - allows us to explore the historical political and social configurations of opium, alcohol, heroin, cocaine, medical maintenance (methadone), the War on Drugs, the carceral state and hyperpolicing, harm reduction and needle/syringe exchange. This semesters principal focus will be on the origins and evolution of the set of theories, philosophies, and practices which constitute harm reduction. The International Harm Reduction Association/Harm Reduction International offers a basic, though not entirely comprehensive, definition of harm reduction in its statement, What is Harm Reduction? (<http://www.ihra.net/what-is-harm-reduction>): Harm reduction refers to policies, programmes and practices that aim to reduce the harms associated with the use of psychoactive drugs in people unable or unwilling to stop. The defining features are the focus on the prevention of harm, rather than on the prevention of drug use itself, and the focus on people who continue to use drugs.[1] Harm reduction in many U.S. communities of color, however, has come to connote a much wider range of activity and challenges to the status quo. In this course we will explore the development of harm reduction in the United States and trace its evolution in the political and economic context race, urban neoliberalism, and no-tolerance drug war. The course will feature site visits to harm reduction organizations in New York City, guest lectures, and research/oral history analysis. This course has been approved for inclusion in both the African-American Studies and History undergraduate curricula (majors and concentrators). HIST W4588 will be open to both undergraduate and masters students. To apply, please complete the Google form at [https://docs.google.com/forms/d/1xaPFhQOzkl1NHnjQlen9h41iel2hXAdhV59D5wH8AQ/viewform?usp=send\\_form](https://docs.google.com/forms/d/1xaPFhQOzkl1NHnjQlen9h41iel2hXAdhV59D5wH8AQ/viewform?usp=send_form). Questions may be directed to [skroberts@columbia.edu](mailto:skroberts@columbia.edu)

Spring 2023: HIST GU4588

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
HIST 4588	001/11203	T 2:10pm - 4:00pm 302 Fayerweather	Samuel Roberts	4.00	10/15

**CPLS GU4320 Marginalization in Medicine: A Practical Understanding of the Social Implications of Race . 4 points.**

There is a significant correlation between race and health in the United States. People of color and those from underserved populations have higher mortality rates and a greater burden of chronic disease than their white counterparts. Differences in health outcomes have been attributed to biological factors as race has been naturalized. In this class we will explore the history of the idea of "race" in the context of changing biomedical knowledge formations. We will then focus on the impact that social determinants like poverty, structural violence, racism and geography have on health. Ultimately, this course will address the social implications of race on health both within the classroom and beyond. In addition to the seminar, there will also be a significant service component. Students will be expected to volunteer at a community organization for a minimum of 3 hours a week. This volunteer work will open an avenue for students to go beyond the walls of their classrooms while learning from and positively impacting their community.

**HIST UN3437 CORP BEHAVIOR # PUBLIC HEALTH. 4.00 points.**

Priority given to majors and concentrators, seniors, and juniors.

In the decades since the publication of Silent Spring and the rise of the environmental movement, public awareness of the impact of industrial products on human health has grown enormously. There is growing concern over BPA, lead, PCBs, asbestos, and synthetic materials that make up the world around us. This course will focus on environmental history, industrial and labor history as well as on how twentieth century consumer culture shapes popular and professional understanding of disease. Throughout the term the class will trace the historical transformation of the origins of disease through primary sources such as documents gathered in lawsuits, and medical and public health literature. Students will be asked to evaluate historical debates about the causes of modern epidemics of cancer, heart disease, lead poisoning, asbestos-related illnesses and other chronic conditions. They will also consider where responsibility for these new concerns lies, particularly as they have emerged in law suits. Together, we will explore the rise of modern environmental movement in the last 75 years

Spring 2023: HIST UN3437

Course Number	Section/Call Number	Times/Location	Instructor	Points	Enrollment
HIST 3437	001/11204	W 8:10am - 10:00am 311 Fayerweather	David Rosner	4.00	13/15

**INSM UN3921 Nobility and Civility II. 4 points.**

CC/GS/SEAS: Partial Fulfillment of Global Core Requirement

Prerequisites: one semester of Contemporary Civilization or Literature Humanities, or an equivalent course, and the instructor's permission. A team-taught multicultural, interdisciplinary course examining traditions of leadership and citizenship as they appear in the key texts of early Indian, Islamic, Far Eastern, and Western civilizations. One goal is to identify and examine common human values and issues evident in these texts while also recognizing key cultural differences

**HIST GU4031 Transforming Texts: Textual Analysis, Literary Modeling, and Visualization . 4 points.**

Designed for graduate and advanced undergraduate students in the social sciences, humanities, and computer science, this hybrid course is situated at the crossroads of historical exploration and computer sciences. Students will be exposed to digital literacy tools and computational skills through the lens of the Making and Knowing Project. The edition will draw on collaboration with and research done by the Making and Knowing Project <http://www.makingandknowing.org/> on an anonymous 16th-century French compilation of artistic and technical recipes (BnF Ms. Fr. 640). Students will work from the encoded English translation of the manuscript, prepared by the Spring 2017 course "*HIST GR8975 What is a Book in the 21st Century? Working with Historical Texts in a Digital Environment.*" This course will also utilize the concepts and prototypes developed by computer science students in the Spring 2018 "*COMS W4172: 3D User Interfaces and Augmented Reality (AR)*". The skills students will learn over the course of the semester are widely applicable to other types of Digital Humanities projects, and indeed, in many fields outside of traditional academic study.

For the final project, students will collaborate to investigate linguistic features of Ms. Fr. 640 using natural language processing and text mining techniques. These projects will shed light on topics of interest within the manuscript and uncover connections within the textual data. By using the tools prototypes in a Spring 2018 *COMS W4172* course, and working alongside computer science students, the groups will learn to adapt and recode data sets, and to view them into a variety of visualizations.

## Of Related Interest

### Biological Sciences

#### Center for the Study of Ethnicity and Race

CSER W3222	Nature and Power: Environmental History of the US
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#### Colloquia, Interdepartmental Seminars, and Professional School Offerings

INSM C3940	Science Across Cultures
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#### History

HIST UN2222	NATURE # POWER: ENV HIST NORTH AMERICA
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HSPB UN2950	Social History of U.S. Public Health
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HIST UN3437	CORP BEHAVIOR # PUBLIC HEALTH
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HIST GU4588	RACE, DRUGS, AND INEQUALITY
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#### History (Barnard)

HIST BC2366	CLIMATE # HISTORY: INTERSECTING SCIENCE, ENVIRONMENT # SOCIETY
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HIST BC2402	Science and Society: From Galileo to Climate Change
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#### Philosophy

PHIL UN2101	HISTORY OF PHILOSOPHY I
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PHIL UN2201	HISTORY OF PHILOSOPHY II
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PHIL UN3251	
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#### Women's Studies (Barnard)

WMST BC3509	Gender, Knowledge and Science in Modern European History
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