

# AS.145 (MEDICINE, SCIENCE AND THE HUMANITIES)

## Courses

### AS.140.224. Science in the Colonial Age. 3 Credits.

This course provides a fresh look at one of the most critical periods in the history of science – the so-called ‘Scientific Revolution’, spanning a period from approximately 1550 to 1750 – through the lens of colonial studies. It will address classic topics within the history and philosophy of science, such as the rise of observational epistemologies and the globalization of scientific knowledge. By connecting these philosophical concepts to the colonial contexts in which they arose, it will use tools from social history, economic history, and art history. Ultimately, it seeks not only to enrich students’ perspectives on the history of science, but also to inspire them to think about the connections between science and society across time, including in our own moment.

Distribution Area: Humanities, Social and Behavioral Sciences

AS Foundational Abilities: Citizens and Society (FA4), Ethics and Foundations (FA5)

EN Foundational Abilities: Engagement with Society (FA4)

### AS.145.104. Science, Medicine, Media. 3 Credits.

Much of our understanding of science and medicine is filtered through what we casually refer to as “the media”: newspapers, magazines, television shows, films, and electronic social media. But the scientific world relies on its own media to produce and circulate knowledge: from scientific journals and conferences, to agar plates and petri dishes, cloud chambers and electrophoresis gels. Medical technologies from the stethoscope to the echocardiogram likewise mediate the perception of the body in health and disease, and increasingly our own understanding and perception of our bodies and our health is mediated via screens, scans, and images – without which we can hardly imagine ourselves anymore. Students will learn theoretical tools to critically assess the technologies that mediate our knowledge of our own bodies and the broader world, as well as practical tools in media production and visual storytelling (video, podcast, website etc.) to bring these analytics to bear on our broader understandings of science and medicine.

Distribution Area: Humanities, Social and Behavioral Sciences

AS Foundational Abilities: Writing and Communication (FA1)

Writing Intensive

### AS.145.106. Health, Science, Environment. 3 Credits.

Environment has an inexorable effect on human health, and certain human activities have had outsized impacts on the natural world and the ability of forms of life to thrive. This course brings medical humanities, history of science, and science & technology studies into conversation with environmental humanities to ask: how have our conceptions of the natural world emerged, and how have these shaped our understandings of bodies, ecologies, and health outcomes? How do we know and measure the environment and health, and to what effects? How have human and ecological health affected environmental politics? How have writers and artists understood and depicted their environments and environmental questions? Can works of fiction shape ecological transformations? What can we learn from case studies of health and environment in Baltimore and the Chesapeake Bay as well as in global contexts? Course topics will include ecology, epigenetics, toxicity, agriculture and food, radiation, air quality, and more-than-human entanglements.

Distribution Area: Humanities, Social and Behavioral Sciences

### AS.145.107. Visual Cultures of Medicine, Science, and Technology. 3 Credits.

This course explores the ways in which science, technology, and medicine rely on visual techniques to produce, communicate, and represent knowledge. It brings tools from Cultural Studies, Critical Visual Studies, and Art History into conversation with the medical humanities and Science and Technology Studies (STS), exploring topics such as technologies of visualization, medical imagery, anatomical illustrations, plastic surgery, forensic science, data visualization, and aerial photography among others. Through a convergence of theory and case studies, the course investigates how race and gender play critical roles in the visual cultures of science and traces the ways in which power and expertise are (re)produced through visual representations

AS Foundational Abilities: Culture and Aesthetics (FA3), Ethics and Foundations (FA5)

EN Foundational Abilities: Creative Expression (FA3)

### AS.145.108. Disability Futures: An Introduction to Medicine, Science, and the Humanities. 3 Credits.

Disability Futures investigates the role of science and medicine in defining “normal” bodies and minds, and the processes of social change through which we can imagine and build an accessible future. Too often, technologists envision a future where disability has been “cured.” In reality, disability has always been an important part of human life; a world where disabled people thrive is a better world for everyone. This course surveys the field of disability studies with a focus on how disability has shaped, and been shaped by, science, medicine, and technology. We combine approaches from science and technology studies (STS), public health, and the medical humanities, covering topics such as art and speculative fiction, eugenics, technoableism, intersectionality, disability politics, structural determinants of health, and disability justice. Throughout the course, we center creative reimaginings by disabled people in science and the arts.

Distribution Area: Humanities

AS Foundational Abilities: Writing and Communication (FA1), Citizens and Society (FA4), Ethics and Foundations (FA5)

EN Foundational Abilities: Engagement with Society (FA4)

### AS.145.112. Wired Worlds: Computation, Medicine, and Humanities. 3 Credits.

This semester’s MSH Introductory Course, “Wired Worlds: Computation, Medicine, and Humanities,” combines STS, media theory, and fiction to ask: How does the ‘net’ structure (or fracture) connections between bodies, institutions, and even planets? Engaging with speculative fiction – such as Jules Verne’s *Around the World in Eighty Days* and Alexander Bogdanov’s *Red Star* (a socialist utopian vision of Mars)—alongside foundational and contemporary network studies, the course investigates how material and imagined networks structure labor, embodiment, and care. Students will critically analyze the intersection of fiction with historical and contemporary debates on automation, surveillance, and medical governance, asking: Who designs these systems? Who maintains them—and how? Who is excluded?”

AS Foundational Abilities: Culture and Aesthetics (FA3), Citizens and Society (FA4)

**AS.145.202. Health Care Activism in Baltimore and Beyond. 3 Credits.**

National struggles over the right to health care, and over the health needs of marginalized groups, have taken distinctive forms in Baltimore City during the past century. The renowned Johns Hopkins University came to symbolize, for many residents, the power of medicine both to heal and to harm – and the need for community action. This course delves into the archives of local institutions to understand the work of activists and advocates who connected health, medicine, and social justice. We focus on specific sites, from the segregated wards of Johns Hopkins to the People's Free Medical Clinic on Greenmount Avenue, where demands for equity changed the city's health care landscape. Through interdisciplinary readings and conversations with local organizers, we consider how historical memory can serve as a creative resource for the art and politics of the present.

Distribution Area: Humanities

AS Foundational Abilities: Writing and Communication (FA1), Citizens and Society (FA4), Democracy (FA4.1), Ethics and Foundations (FA5)

Writing Intensive

**AS.145.204. Graphic! Visualizing Medicine from Textbooks to Comics. 3 Credits.**

Visuals play an important role in the history and practice of medicine, from medical textbooks to medical imaging, and from hospital signage and public health posters to comics and graphic novels. This course will examine the visual aspects of the history and practice of medicine by focusing on the rising genre of medical comics and graphic novels, known as "graphic medicine." The course will embed this examination of "graphic medicine" in a wider examination of the various uses of visuals in medicine, the complicated history of class, race and gender in those uses, and how visuals have served different functions in the history and practice of medicine, from assisting medical diagnosis to enabling new forms of medical consumerism, and from facilitating doctor-patient communication to practicing art therapy, as well as presenting visual pathographies and documenting patients' and caregivers' experiences of disease. Through an assortment of primary sources that include medical comics and graphic novels, aided by a variety of secondary sources that embed these narratives in larger issues in the history of medicine, medical anthropology, and the medical humanities, the course will aim to introduce students to some of the most important themes in the field of "graphic medicine."

Distribution Area: Humanities

AS Foundational Abilities: Writing and Communication (FA1), Culture and Aesthetics (FA3), Ethics and Foundations (FA5)

Writing Intensive

**AS.145.219. Science Studies and Medical Humanities: Theory and Methods. 3 Credits.**

The knowledge and practices of science and medicine are not as self-evident as they may appear. When we observe, what do we see? What counts as evidence? How does evidence become fact? How do facts circulate and what are their effects? Who is included in and excluded from our common-sense notions of science, medicine, and technology? This course will introduce students to central theoretical concerns in Science and Technology Studies and the Medical Humanities, focusing on enduring problematics that animate scholars. In conjunction with examinations of theoretical bases, students will learn to evaluate the methodological tools used in different fields in the humanities to study the production and circulation of scientific knowledge and the structures of medical care and public health. This problem-centered approach will help students understand and apply key concepts and approaches in critical studies of science, technology, and medicine.

Distribution Area: Humanities, Social and Behavioral Sciences

AS Foundational Abilities: Writing and Communication (FA1), Citizens and Society (FA4), Ethics and Foundations (FA5)

EN Foundational Abilities: Engagement with Society (FA4)

Writing Intensive

**AS.145.220. Health, Medicine, Gender, and Sexuality. 3 Credits.**

This course invites students to take the perspective of gender and sexuality on health and medicine. In this course, we do not see gender and sexuality as a separate domain of health. Instead, we will learn how a gender perspective is in fact crucial for critically exposing the ways in which medicine is interpenetrated by social life and by law. For example, what technologies and discourses constitute "the normal"? How is sexuality braided into disease surveillance? How do we understand the lawfare on the terrain of reproductive rights? What aspects of disease are suppressed in dominant forms of knowledge production, due to the undervaluation of gendered forms of experience? We will take cases involving HIV/AIDS; reproductive justice and rights; poverty, marginality and queer kinship; and household patterns of care.

Distribution Area: Humanities, Social and Behavioral Sciences

AS Foundational Abilities: Science and Data (FA2), Ethics and Foundations (FA5)

**AS.145.300. Medicine and Conflict: The History and Ethics of Healing in Political Turmoil. 3 Credits.**

"War is the only proper school for surgeons," the Ancient Greek physician, Hippocrates, is quoted to have said. This saying has been used to show how medicine and war have been thought for millennia to shape each other. Medicine has played a major role in situations of political conflict ever since human societies engaged in war and started elaborating "just war doctrines" that determine how belligerent parties should conduct war as an attempt to "civilize" war and mitigate its scourges. Through an investigation of case studies from the modern and contemporary world, this course will examine the role played by medicine in situations of political conflict, as well as the role played by war and humanitarian crises in the history of medical thought and practice. It will explore how medical knowledge and expertise have been deployed in situations of political violence or tumult and will ponder some of the ethical dilemmas faced by medical professionals in those contexts. Covering cases ranging from surgery in the American Civil War to the provision of medical care in the Syrian refugee crisis, some of the themes discussed will include biomedical ethics in armed conflict, torture, trauma, contagion, and medical innovation in conflict contexts.

AS Foundational Abilities: Writing and Communication (FA1), Citizens and Society (FA4), Democracy (FA4.1), Ethics and Foundations (FA5)

EN Foundational Abilities: Engagement with Society (FA4)

Writing Intensive

**AS.145.302. Graphic Medicine: Comics and Healthcare. 3 Credits.**

The Graphic Medicine Manifesto defines "Graphic Medicine" as "the intersection of the medium of comics and the discourse of healthcare." This seminar will explore some of the Graphic Medicine titles published over the past two decades and introduce some of the most important genres in the field, from graphic pathographies (narratives of illness in comic format) to healthcare providers' accounts to educational healthcare comics. It will examine some of the functions of these comics, from the cathartic to the didactic and beyond, and equip students with tools to read, critique, and even produce comics that deal with healthcare. No prior experience with comics or drawing is necessary!

Distribution Area: Humanities

AS Foundational Abilities: Culture and Aesthetics (FA3), Citizens and Society (FA4)

EN Foundational Abilities: Creative Expression (FA3), Engagement with Society (FA4)

**AS.145.304. Identity Formation for Future Healthcare Professionals: A Museum-based Course. 3 Credits.**

This highly interactive course uses museum-based pedagogical methods to support your formation as a future healthcare professional. The course is designed to prepare you to thrive personally and professionally during your professional training and throughout your career. All sessions will be held in-person at campus-adjacent museums (e.g., the Baltimore Museum of Art, the Evergreen Museum and Library, the Homewood Museum), as well as on-campus and nearby community settings. Class sessions will include activities such as open-ended discussions of visual art, film, music, and poetry; sketching; mask-making; and reflective writing. Each week of the course will center on a core theme: 1) family, 2) community, 3) work/education, and 4) flourishing. No art knowledge or experience of any kind is required.

Distribution Area: Humanities, Social and Behavioral Sciences

AS Foundational Abilities: Culture and Aesthetics (FA3), Citizens and Society (FA4), Democracy (FA4.1)

EN Foundational Abilities: Creative Expression (FA3), Engagement with Society (FA4)

**AS.145.305. Lives in Medicine: Exploring the Personal Writing of Patients and Practitioners. 3 Credits.**

The personal accounts of patients and practitioners offer a rich exposure to human experience in medicine. What is it like to be a patient, to be sick or to face the threats or limits that illness presents? What is it like to be a doctor or nurse in this world of illness? In this course we will read such accounts as published in book form, discuss them in a seminar setting and write about them. We will select a small number from the thousands of such publications to introduce the student to this unique genre, emphasizing reading, writing and group discussion.

Distribution Area: Humanities

AS Foundational Abilities: Writing and Communication (FA1), Science and Data (FA2)

Writing Intensive

**AS.145.306. Home, Health, Labor, and Land: Medical Institutions in the City. 3 Credits.**

The twentieth-century decline of manufacturing in American cities coincided with the rise of powerful healthcare institutions as major employers and drivers of urban development. This course explores the politics of race, class, and health as they pivoted around this major economic transformation. We examine the growth of Johns Hopkins in East Baltimore and its displacement of residents, met by the organizing efforts of workers and community members. Core texts illuminate the structural forces underpinning urban development and inequality across many post-industrial cities, as expanding healthcare infrastructure paradoxically coincided with worse health outcomes. Class time includes seminar-style discussion, archival research, and visits to local sites.

Distribution Area: Humanities, Social and Behavioral Sciences

AS Foundational Abilities: Writing and Communication (FA1), Citizens and Society (FA4), Democracy (FA4.1), Ethics and Foundations (FA5)

EN Foundational Abilities: Engagement with Society (FA4)

Writing Intensive

**AS.145.307. Making Medicines: Cultures of Therapeutic Preparation and Production. 3 Credits.**

Before they are ever marketed or consumed, therapeutic resources must first be made. "Pharmaceutical manufacturing" today may conjure the sterile corporate lab, but such antiseptic images obscure the contested spaces – fields, forests, farms, factories, and more – worldwide where medicinal ingredients often begin their lives. This course therefore historicizes and contextualizes the development of global corporate medicine by examining the wide range of ways therapeutic resources (plants, animals, minerals, molecules, compounds) have been prepared and produced in different modern contexts. Students will engage with material from history, anthropology, science & technology studies (STS), and art and music to examine how medicine-making operates across cultures and time periods, as well as becomes integral to socio-political processes like social hierarchization, colonial expansion and anti-colonial struggle, and industrial development. By asking who can make medicines, with what, when, how, and where, this course offers interdisciplinary analytical toolkits to understand therapeutic substances as highly-contested things integral to the exercise of power, with profound effects on the world beyond the body.

Distribution Area: Humanities

AS Foundational Abilities: Writing and Communication (FA1), Citizens and Society (FA4), Ethics and Foundations (FA5)

EN Foundational Abilities: Engagement with Society (FA4)

Writing Intensive

**AS.145.308. Automating Care: Digital Technology and the Future of Medicine. 3 Credits.**

Artificial intelligence, machine learning, and big data are central to futuristic visions of fast, optimized medical treatment. This class examines technology's promises: who benefits from, and who pays the price for, the automation of care? How does the clinical goal of improving health relate to industry priorities such as efficiency and revenue growth? By studying health AI applications in wellness, diagnosis, decision support, and administration, we will gain conceptual understanding of how algorithmic systems function, as well as their social, economic, and political implications. Students will investigate how automation can entrench inequality, both for patients and for healthcare workers. Authors such as Ruha Benjamin, Safiya Noble, and S. Scott Graham guide us beyond the "promises and perils" to a critical assessment of how technology interacts with systems of racial capitalism and biopolitics. AS Foundational Abilities: Writing and Communication (FA1), Citizens and Society (FA4), Democracy (FA4.1), Ethics and Foundations (FA5) EN Foundational Abilities: Engagement with Society (FA4) Writing Intensive

**AS.145.309. The Costs of Care: Writing about Illness in America. 3 Credits.**

Health care can be expensive for those who receive it and those who provide it. In the United States, patients go into debt while doctors suffer from burnout and nurses rush through understaffed wards. The U.S. has the highest healthcare spending of any wealthy nation, yet suffers comparatively worse outcomes. This seminar brings together social science research with patient experiences that show the human face of the American health care debate. We read the work of scholars, poets, and medical practitioners who reflect on core questions: What should be the government's role in healthcare provision? What alternative models have people in marginalized groups developed when the system fails them? Understanding both failures and successes gives us the tools to build new paths. Distribution Area: Humanities AS Foundational Abilities: Writing and Communication (FA1), Citizens and Society (FA4), Democracy (FA4.1), Ethics and Foundations (FA5) EN Foundational Abilities: Engagement with Society (FA4) Writing Intensive

**AS.145.310. A Noble Profession? Doctors as Social and Political Actors. 3 Credits.**

Medicine is a profession known for its ethical code of conduct—a code that is imbued with an ethos of neutrality and impartiality. However, real life shows us that doctors do not occupy a special moral class, but are rather members of social and political communities, citizens with grievances, political affiliations and loyalties, and are often subject to many social and political influences around them. This course will examine how doctors' political choices shape their medical practice, and how their medical practice—especially their temporally and spatially privileged access to bodily suffering and loss of life—shapes in turn their political choices. It investigates the roles of doctors, not simply as technical experts, but as social and political actors informed by technical expertise among other factors. Relying on histories, ethnographies, memoirs and even works of fiction, this course will explore narratives of doctors' social and political engagement in the US and around the globe. Distribution Area: Humanities, Social and Behavioral Sciences AS Foundational Abilities: Writing and Communication (FA1), Citizens and Society (FA4), Democracy (FA4.1), Ethics and Foundations (FA5) Writing Intensive

**AS.145.311. Clues: Unreasoning the Medical Mystery. 3 Credits.**

Foundational authors of detective fiction from Edgar Allan Poe onwards often used medical doctors and themes in their mystery plots. It's no coincidence that medicine and crime fiction share a vocabulary of clues, evidence, and diagnosis. The mystery genre was integrally tied to the rise of scientific medicine as a respected profession. Indeed, classic detective stories are practically propaganda for the scientific method, showing readers how the powerful tools of observation and inference can solve any problem. Over the course of the 20th century, not only doctors, but also psychologists, social scientists and historians adopted the authoritative stance of the detective in constructing or reconstructing facts. As we study Sherlock Holmes and his modern proteges, such as TV doctor Gregory House, we will analyze how "medical mystery" narratives can shape our thinking about problems and solutions in medicine. We will consider post-modern detective stories that offer alternatives to the "Holmsian" model for understanding the complex clinical realities of today. Distribution Area: Humanities, Social and Behavioral Sciences AS Foundational Abilities: Writing and Communication (FA1), Culture and Aesthetics (FA3), Ethics and Foundations (FA5) EN Foundational Abilities: Creative Expression (FA3) Writing Intensive

**AS.145.312. Narratives of Bias in Healthcare. 3 Credits.**

What are the ways in which bias informs and infiltrates healthcare? What is the relationship of bias with power and injustice, across medical training, patient care, and the production of medical knowledge? This course will grapple with these questions through interpretation and discussion of works of visual art, fiction, non-fiction, and popular media that center the voices of patients and healthcare providers. We will tie a direct link to healthcare systems and patient outcomes by applying a similar critical and interpretive lens to primary sources from scientific and medical literature. Combining these conversations with discussions of healthcare practices, we will explore a broad survey of themes, including cognitive biases and decision-making in patient care, epistemic injustice, bias in artificial intelligence, and bias in medical language and the electronic health record. Students will be introduced to identifying and navigating narratives of bias in healthcare, with an emphasis on applying critical thinking to the systems that propagate and dismantle bias in healthcare. Distribution Area: Humanities AS Foundational Abilities: Writing and Communication (FA1), Culture and Aesthetics (FA3), Citizens and Society (FA4) EN Foundational Abilities: Creative Expression (FA3), Engagement with Society (FA4) Writing Intensive

**AS.145.313. Afrofuturism, Latinxfuturism, and Technoscientific Imaginaries. 3 Credits.**

This course surveys the literary and cultural productions of Black and Latinx science fictioners and their generative confrontations with the sci-fi genre's fraught colonial, gendered, and racialized technoscientific origins. By engaging works of the Afrofuturist and Latinxfuturist imagination (ex. film, short stories, novels, and visual art) alongside science fiction criticism, and readings spanning the subfields of feminist, queer, and postcolonial science and technology studies, we'll consider how Black and Latinx science fictioners, past and present, appropriate the idioms of science and technology to upend essentialist accounts of gender, race, and sexuality, and fashion radical remappings of "gendered," "raced," and "sexed" bodies. Throughout the course of the semester, we'll also be interrogating how (and to what end) Black and Latinx sci-fi writers and creators such as Octavia E. Butler, Nalo Hopkinson, Janelle Monáe, Firelei Báez, E.G. Condé, and Silvia Moreno-Garcia, among others, complicate, reconceptualize, and expand the contours of the "science" in science fiction. In so doing, we will assess the implications (be these social, political, epistemological, etc.) of positioning Black and Latinx peoples, who have more often than not been made the objects of science (and scientific racism), as key interlocutors, producers, and critical surveyors of technoscientific knowledge.

AS Foundational Abilities: Writing and Communication (FA1), Culture and Aesthetics (FA3)

EN Foundational Abilities: Creative Expression (FA3)

Writing Intensive

**AS.145.315. Neurofictions. 3 Credits.**

Neuroscience has a long way to go from mapping neural connections to a precise account of memory, emotion, and consciousness. But the limits of science have never stopped us from imagining its possible implications. Engaging two centuries of debate in the mind sciences and popular culture, this course looks at historical attempts to explain and control human consciousness. By placing each period's scientific texts in dialog with contemporaneous science fiction – from Edgar Allan Poe to Ursula K. Le Guin – we discover how theories about the brain can shape society while at the same time responding to social contexts.

Distribution Area: Humanities

AS Foundational Abilities: Writing and Communication (FA1), Culture and Aesthetics (FA3), Ethics and Foundations (FA5)

EN Foundational Abilities: Creative Expression (FA3)

**AS.145.316. Food as War, Food as Resistance, Food as Liberation. 3 Credits.**

Food can be many things: sustenance, nutrition, cultural practice, and even artform. But regardless of how food is framed, it is also always political. It has the potential to be weaponized in the context of conflict. It has the potential to assert self-determination and dignity among those displaced by conflict and forced removal. And it has the potential to undergird liberation struggles as communities create food autonomy outside of oppressive structures. This course examines food as a tool and technology of both war and liberation by utilizing historic and contemporary case studies of manufactured food scarcity, food apartheid resulting from structural inequality, food-based community building, and food autonomy. We will consider agriculture, food availability, food distribution, nutrition, food-related health outcomes, food procurement, food preparation practices, and food-based justice and independence movement. As a practitioner seminar, the course will engage with food practitioners and food activists whose work addresses food and nutrition-related disparities faced by communities in sites of conflict, inequality, and diaspora.

Distribution Area: Humanities

AS Foundational Abilities: Culture and Aesthetics (FA3), Citizens and Society (FA4)

**AS.145.317. Becoming Universal: Toward Global Computing. 3 Credits.**

How did the computer become an omnipresent machine? This overview course aims to familiarize students with the evolution of the computer as a pivotal technological advancement of the twentieth century and to foster critical thinking about the widespread notion of computerization, which is often associated with profound changes, as reflected in terms like "Personal Computer Revolution," "the Age of Big Data," and the more recent "AI Revolution." Throughout the course, we will emphasize both the universal aspirations and the localized boundaries that have shaped patterns of technological dissemination and the circulation of knowledge – from the dawn of digital computing, rooted in the computational needs of the United States and Britain during World War II, to the modern-day manifestations of the so-called "digital divides." To achieve this objective, we will explore classical narratives centered on American history as well as emerging transnational and cultural studies in computing. This exploration will be enriched by extensive engagement with primary source documents.

Distribution Area: Humanities

AS Foundational Abilities: Writing and Communication (FA1), Culture and Aesthetics (FA3), Citizens and Society (FA4)

Writing Intensive



**AS.145.318. The War Lab: Medicine, Science, and Conflict. 3 Credits.**

This course explores how medicine, science, and technology intersect with war and conflict, shaping both the battlefield and society at large. It examines the medicine-science-war nexus by investigating the ways in which war and conflict have spurred scientific innovation and medical breakthroughs and, inversely, how scientific and medical innovations have enabled new forms of warfare. From the development of antibiotics and prosthetics to the ethical dilemmas of weapons research and the use of artificial intelligence in combat, students will examine these entanglements and the profound moral and ethical questions they raise. Relying on case studies from historical and contemporary conflicts, historical documents, films, and literature, the course will investigate topics such as the technological frontiers of war, military funding of scientific research, post-conflict legacies of wartime technologies, and the long-term health outcomes of political and military conflict. Through a critical examination of these themes, students will gain a better understanding of the complex relationship between war and advancements in medicine, science, and technology and will be prompted to analyze the ethical, social, and political implications of the entanglements between war, science, and medicine.

Distribution Area: Humanities

AS Foundational Abilities: Writing and Communication (FA1), Citizens and Society (FA4), Ethics and Foundations (FA5)

Writing Intensive

**AS.145.319. Technologies of Conflict, Technologies of Resistance: A Research Seminar. 4 Credits.**

This research seminar will survey a variety of theoretical, methodological, and disciplinary approaches to the study of the intersections of medicine, science, and technology with war and conflict, as well as struggles for liberation and resistance. Each session will highlight work by a scholar (or more) representing a discipline or interdiscipline to showcase the ways in which academics and scholars have approached these themes. From anthropologists to historians and from scholars of gender studies to scholars of urban studies, the research seminar will invite guest speakers to discuss their work with students and explore the opportunities afforded by their methods of inquiry and the challenges they pose. Students will be guided throughout the seminar as they develop a research project: from the choice of topic to the development of a research question to the choice of sources, methods, and format, and, finally, as they pursue their research on their chosen topic.

Distribution Area: Humanities

AS Foundational Abilities: Writing and Communication (FA1), Ethics and Foundations (FA5), Projects and Methods (FA6)

Writing Intensive

**AS.145.320. British Visual Culture and Medicine. 3 Credits.**

In this class, we will reflect on the ethical, gendered, and societal implications of the creation and exchange of British medical imagery. What purpose did this visual culture serve for artists, practitioners, and patients? How are we meant to look at these images today, outside of their original contexts? We will examine a range of images and objects from Britain, expanding our definition of "art" and interrogating the colonialist roots and origins of artistic and medical material. Our objects of study will extend from oil paintings of renowned physicians to diagnostic photographs of unnamed patients and from prints of gynecological dissection to satirical cartoons of "quack" doctors. We will look not only at how practitioners have had their patients depicted, but also at how those with illnesses or with disabilities have taken back their bodily power to portray themselves. Questions of portraiture, likeness, and consent will be constant themes throughout this course, guiding students' development of ways of thinking critically and writing thoughtfully about medical images.

Distribution Area: Humanities

AS Foundational Abilities: Writing and Communication (FA1)

Writing Intensive

**AS.145.321. Music as Medicine. 3 Credits.**

Music and medicine have long been understood as deeply intertwined technologies capable of reshaping human bodies and environments. We will explore some of the visible (as well as forgotten) connections between these domains, and ponder some questions along the way: How was music (and dancing) used to cure spider bites and other maladies? What is the best music to accompany the medicinal use of hallucinogenic drugs? How is the use of lullabies revolutionizing pre- and postnatal care for mothers and infants? What can we learn from the common origins of medical vs musical instruments? "Music as Medicine" will feature diverse perspectives of guest musicians and practitioners and offer hands-on engagement with archival sources and material objects.

Distribution Area: Humanities

AS Foundational Abilities: Writing and Communication (FA1), Culture and Aesthetics (FA3)

EN Foundational Abilities: Creative Expression (FA3)

Writing Intensive

**AS.145.322. Bodies in Flux: Medicine, Gender, and Sexuality in the Modern Middle East. 3 Credits.**

This course examines how bodies, genders, and sexualities in the modern Middle East, from the nineteenth century to the present, have been shaped and represented via changing and competing discourses. Through a variety of historical, ethnographic, sociological, media, and literary readings, the course investigates dynamic representations of bodies in flux: colonized bodies, medicalized bodies, gendered bodies, sexualized bodies, (re)productive bodies, aging bodies, and bodies in revolt. The course pays special attention to science, technology, and medicine in their interaction with cultures, laws, and religious practices. Some of the topics covered include analyzing histories of and discourses on gender, sexuality, health and disease, reproduction, genital cutting, and gender-based violence.

Distribution Area: Humanities

AS Foundational Abilities: Writing and Communication (FA1), Citizens and Society (FA4), Ethics and Foundations (FA5)

EN Foundational Abilities: Engagement with Society (FA4)

Writing Intensive

**AS.145.323. Music as Laboratory. 3 Credits.**

What is the relationship between the histories of music and scientific development? How is making music a kind of laboratory research? Musical instruments and aesthetics have always emerged in dialogue with developments in science, technology, and medicine. The first stethoscope borrowed from the design of flutes and challenged physicians to grapple with new concepts like "sound," "signal," and "noise." The automation of industrial machinery was influenced by earlier musical automata—technology that sought to mechanically synchronize, sequence and loop musical phrases. Concepts like logarithms, combinatorics, resonance and sympathetic vibration, melancholy and mania, etc., relied on the contributions of musicians, music theorists, and instrument-makers. This seminar looks at points of contact between music and histories of science, technology, and medicine through both scholarly and creative lenses. The course integrates creative and experimental music making with reading and short writing assignments. Familiarity with music notation and some basic musical skills will be helpful but are not strictly necessary. Permission of instructor required. Limit 15 students.

AS Foundational Abilities: Culture and Aesthetics (FA3), Projects and Methods (FA6)

EN Foundational Abilities: Creative Expression (FA3)

**AS.145.325. Magic/Medicine: Healing, Protection, and Transformation in African and Indian Ocean Worlds. 3 Credits.**

The word for "medicine" in Malagasy, *fanafody*, can also mean "charm" or "magic." This seminar uses that linguistic flexibility as a point of departure to explore practices for bodily healing and protection amid broader processes of social transformation, primarily in 20th- and 21st-century East Africa and the western Indian Ocean. How is the medical magical? How is the magical medical? How have separations between magic and medicine been erected, maintained, or questioned? From the role of faith healers to the region's experience of new "miracle drugs," class materials will integrate anthropology, history, and science and technology studies (STS) to examine various permutations of the magic/medicine duality over time. Topics will include facets of traditional medicine; encounters between indigenous and imported healing systems; medical pluralism; colonial and postcolonial conflicts; the rise of humanitarian global health; epidemic and pandemic politics; ritual and religious processes; and the roles of identity, inequality, and empire in healing and protection practices. Grounded in Madagascar, Mauritius, Réunion, Tanzania, Mozambique, Malawi, Zimbabwe, Botswana, and South Africa, this course will also use magic/medicine to consider the region's transcontinental and transoceanic connections.

Distribution Area: Humanities

AS Foundational Abilities: Writing and Communication (FA1), Citizens and Society (FA4)

EN Foundational Abilities: Engagement with Society (FA4)

Writing Intensive

**AS.145.326. AI in History, Philosophy, and Fiction. 3 Credits.**

Proclamations of an AI revolution are ubiquitous, with utopian visions from technological enthusiasts and dystopian predictions from skeptics growing in number and pathos. In this class, we will challenge the current focus on the transformative potential of machine learning by examining it through the broader historical lens of automation, mechanization, cybernetics, and computerization. Course materials include foundational works in AI as well as science fiction, allowing us to explore the concept of technological imagination as a bridge between public science, cultural production, and the development of scientific and engineering research programs. Spanning from Ancient Greece to modern Europe, from Cold War-era U.S. and Soviet Union to contemporary China, this seminar raises critical questions about the meanings of "intelligence," "rationality," and "mind."

AS Foundational Abilities: Writing and Communication (FA1), Culture and Aesthetics (FA3), Ethics and Foundations (FA5)

EN Foundational Abilities: Creative Expression (FA3)

Writing Intensive

**AS.145.327. Emergency!: A cultural and historical exploration of the concept of "emergency" in medicine. 3 Credits.**

What constitutes an "emergency" in medicine? How has our understanding of emergencies evolved over time in response to historical events, cultural shifts, popular media, and changes in the healthcare system? How has this contributed to the development of the specialty of emergency medicine? In what ways does time, urgency, and emergency differ when one is within the walls of the hospital? This course will use a multimodal approach to tackle various facets of an "emergency" in medicine – for instance, comparing how healthcare practitioners conceptualize "emergency" vs the how the broader population views emergencies, considering the development and implications of the concept of triage, and evaluating the provision of emergency care in times of crisis such as natural disasters or the recent COVID-19 pandemic. This course will also offer a unique local look at what "emergency" means at Johns Hopkins - we will leverage the Chesney Medical Archives to understand how emergency care has evolved across time locally at Johns Hopkins, and students will also have the opportunity to shadow the course instructor (an emergency physician) in the Johns Hopkins Emergency Department.

Distribution Area: Humanities

AS Foundational Abilities: Writing and Communication (FA1), Culture and Aesthetics (FA3), Citizens and Society (FA4)

EN Foundational Abilities: Creative Expression (FA3), Engagement with Society (FA4)

Writing Intensive

**AS.145.350. MSH Research Capstone. 3 Credits.**

The Research Capstone seminar prepares students to undertake original extended research in the medical humanities and science studies. The course will help students synthesize the interdisciplinary knowledge upon which the Medicine, Science, and the Humanities (MSH) major is built. Students will have the opportunity to form research topics, devise and execute research plans, write a research grant application, and share their work with the class. The course is aimed at MSH juniors seeking to create Honors projects, though the course is open to any student wishing to learn or enhance research skills.

AS Foundational Abilities: Writing and Communication (FA1), Projects and Methods (FA6)

Writing Intensive

**AS.145.360. Incarceration and Health: Critical Perspectives. 3 Credits.**

Can care exist in a space of punishment? Institutions of incarceration are inherently spaces of violence and social control and, in the U.S.'s current context of mass incarceration, racial oppression. Yet prisons, jails, and detention centers are required to provide individuals access to health care. How can we understand this convergence of care for the body and psyche with multiple forms of carceral violence? This course will examine modes of health and health care inside institutions of incarceration as they are situated within broader socio-political contexts that shape society's over-reliance on incarceration as a means of social and racialized control. Drawing on history, anthropology, sociology, legal theory, critical race studies, and public health, the course will explore the everyday realities inside institutions of incarceration as they relate to suffering and care and how those are connected to policies and processes of subjugation outside the institutions' walls. Case studies for examining these relationships include pregnancy, COVID-19, addiction, and mental illness behind bars. Students will engage with concepts such as disciplinary power, biopower, carceral and anti-carceral feminism, theories of care, medical abolition, and dual loyalty. While the course will primarily focus on the U.S. context, we will also draw comparisons to non-U.S. settings. Throughout the course we will seek to understand how institutions of incarceration are not, as popularly understood, isolated places "elsewhere," but implicitly porous with so-called free society—and therefore as exemplars for understanding the connections among health, inequality, and state institutions.

Distribution Area: Humanities, Social and Behavioral Sciences

AS Foundational Abilities: Writing and Communication (FA1), Citizens and Society (FA4), Projects and Methods (FA6)

EN Foundational Abilities: Engagement with Society (FA4)

Writing Intensive

**AS.145.390. Advanced Topics in Medicine, Science, and the Humanities: Feminist Sci Studies & Feminist Sci-Fi. 3 Credits.**

Critical studies of the significance of science, technology, and medicine rely on circuits of knowledge exchange that shape and reshape the landscape of scholarly interest. Building on the theoretical foundations established in AS.145.219 "Science Studies and Medical Humanities: Theory and Methods," this course probes key questions in science studies (STS) and the medical humanities (MH) by tracing the intellectual genealogies of significant topics in these fields. By exploring a number of key texts, theories, and methodologies, it aims to acquaint students with both classic and cutting-edge writings and frameworks in STS and MH and equip students with the tools to engage with and apply them in their own research. Coursework will include close reading of core books to dissect how scholars marshal evidence to build their arguments; regular reading responses; and a final project that allows students to synthesize materials related to their own interests, which can serve as the foundation for an honors project. It is a required course for students pursuing the Science and Technology Studies (STS) track in MSH. The thematic focus of the course is determined by the instructing faculty and draws on their areas of scholarly expertise. This semester, the course will focus on the generative "meetings" of feminist intellectual thought, science and technology studies, and science fiction. From Mary Shelley's *Frankenstein* to Octavia E. Butler's *Xenogenesis* series, (proto)feminist cultural workers have long turned to the genre of science fiction to offer layered meditations on the cultural, ethical, philosophical, political, and social dimensions of science, technology, and medicine. It is also in the words and worldings of science fiction that myriad scholars working in the dynamic inter- and multidisciplinary field of feminist science and technology studies (feminist STS) have found, as Donna Haraway puts it, "the ideas, the stories, and the shapes with which [to] think ideas, shapes, and stories in feminist theory and science studies." In this course, we will engage foundational and newer texts in feminist STS as well as feminist science fiction novels, short stories, and film to explore the vibrant intellectual cross-fertilizations among the two. In doing so, we will survey some of feminist STS' guiding themes and concerns: critiques of biological determinism and scientific objectivity, challenges and reimaginings of the presumed boundaries between nature and culture, the intersections of reproduction and women's labor/ing, feminist approaches to epistemology, and the power of gendered and racialized imagery and language in science and medicine, among others. At the same time, our serious engagement with feminist science fiction, and its critiques and reimaginings of science, technology, and medicine, will enrich students' understanding of feminist STS and its potential applications for speculating and materializing more socially just and inclusive modes of knowing, seeing, and being in the world.

Distribution Area: Humanities

AS Foundational Abilities: Writing and Communication (FA1), Projects and Methods (FA6)

Writing Intensive



**AS.145.400. Black Land & Food Sovereignty Praxis: An Environmental Justice Workshop. 3 Credits.**

This course is designed to introduce and advance perspectives on radical approaches and analyses on the state of food and food systems, while learning about historic and contemporary examples of movement toward freedom and self-determination through land and food. The course is co-taught by author, organizer, educator, and filmmaker Eric Jackson (Black Yield Institute) and anthropologist Nicole Labruto (Johns Hopkins University). Black Yield Institute (BYI) is a Pan-African power institution based in Baltimore, serving as a think tank and collective action network that addresses food apartheid. The Black Land & Food Sovereignty Praxis course is BYI's flagship popular political education course. The course immerses budding movement contributors in a theory- and practice-based classroom experience. Participants will develop new questions, challenge their beliefs, develop a critical analysis, learn skills, and build relationships that will prepare them for growth in movement toward Black land and food sovereignty. We will also offer a 3-credit spring semester project-based course that will continue work done in the fall course. Open to undergraduate and graduate students. The course builds on the model of the Sustainable Design Practicum (2021 and 2022) and the Environmental Justice Workshop (2023). Class sessions will take place each week in Cherry Hill in south Baltimore. Meeting times include transportation to and from the Homewood campus. Admission by permission of instructors. Email [nlabruto@jhu.edu](mailto:nlabruto@jhu.edu) to receive application. AS Foundational Abilities: Citizens and Society (FA4), Ethics and Foundations (FA5)  
EN Foundational Abilities: Engagement with Society (FA4)

**AS.145.403. Crusades, Plagues, and Hospitals: Medicine, Science, and War in the Medieval and Early Modern World. 3 Credits.**

At the dawn of the twelfth century, armies marched from Latin Europe, heading for Jerusalem. They attacked and invaded large territories in Asia Minor and the Middle East and created Latin polities that ruled over the Levant for about two centuries. During this period, new societies' political and social orders took shape representing the connections, exchanges, and wounds of conflict. The Crusading project extended well beyond the Middle East: European Christian armies sought to convert Northern Europe, eradicate old polytheistic religions there, and reestablish Christian rule in the Iberian Peninsula. By the sixteenth century, a new wave of Crusades extended to include the wars against the Ottoman Empire, the colonial expansion in Africa, Asia, and the "New World." At the same time, the colonial expansion involved the emergence of new chattel transatlantic slavery with the atrocities and destruction that it wrecked for centuries to come. Diseases, famines, and other natural disasters marched alongside the marching armies. Famines accompanied the first and second crusades in the twelfth century. By the end of the fourteenth century, the Black Death had spread throughout the world, claiming one-third of the world's population. Similarly, leprosy and syphilis spread alongside the armies moving across the Atlantic and Indian oceans. This seminar investigates the place of science, medicine, and technology in medieval and early modern war, conflict, and slavery. Starting from the Crusades of the twelfth century to the colonial wars and slavery of the seventeenth century, the course will investigate how conflicts develop, the technologies involved in their pursuit—from military technology to navigation to architecture—how conflicts affect medicine and medical knowledge—from military medicine and surgery to the development of hospitals to epidemics—and how conflict, war, and enslavement impacted the movement of people, goods, and ideas.  
Distribution Area: Humanities  
AS Foundational Abilities: Writing and Communication (FA1), Culture and Aesthetics (FA3), Citizens and Society (FA4)  
Writing Intensive

**AS.145.410. Black Land & Food Sovereignty Practicum: An Environmental Justice Studio. 3 Credits.**

This project-based course will provide training and skills in movement building through radical analyses of and approaches toward the state of food and food systems. The course immerses budding movement contributors in a theory- and practice-based experience. Students will engage in guided projects that support the movement toward freedom and self-determination through land and food. The course is co-taught by author, organizer, educator, and filmmaker Eric Jackson (Black Yield Institute) and anthropologist Nicole Labruto (Johns Hopkins University). Black Yield Institute (BYI) is a Pan-African power institution based in Baltimore, serving as a think tank and collective action network that addresses food apartheid. Participants will learn new research and design skills, contribute to projects relevant to BYI's work, develop a critical analysis, and build relationships that will prepare them for growth in movement toward Black land and food sovereignty. The course builds on AS.145.400 Black Land & Food Sovereignty Praxis: An Environmental Justice Workshop, though the course is not a prerequisite. Open to undergraduate and graduate students. Class sessions will take place each week in Cherry Hill in south Baltimore. Meeting times include transportation to and from the Homewood campus. Admission by permission of instructors.  
AS Foundational Abilities: Citizens and Society (FA4), Ethics and Foundations (FA5)  
EN Foundational Abilities: Engagement with Society (FA4)

**AS.145.490. MSH Honors Thesis Seminar. 3 Credits.**

Distribution Area: Humanities  
AS Foundational Abilities: Writing and Communication (FA1), Science and Data (FA2), Projects and Methods (FA6)

**AS.145.503. CAST-M Program Seminar. 3 Credits.**

Independent Study for students in the CAST-M Program  
**Prerequisite(s):** You must request Customized Academic Learning using the Customized Academic Learning form found in Student Self-Service: Registration > Online Forms.  
Distribution Area: Humanities  
AS Foundational Abilities: Citizens and Society (FA4), Ethics and Foundations (FA5)

**AS.145.510. Medicine, Science & the Humanities Independent Research. 1 - 3 Credits.**

This course is for students in the Medicine, Science & the Humanities doing independent research. Course can be taken up to 3 credits with approval from the director.  
**Prerequisite(s):** You must request Customized Academic Learning using the Customized Academic Learning form found in Student Self-Service: Registration > Online Forms.  
AS Foundational Abilities: Writing and Communication (FA1), Science and Data (FA2), Projects and Methods (FA6)  
Writing Intensive

**AS.145.511. Medicine, Science & the Humanities Independent Research. 1 - 3 Credits.**

This class is for the MSH majors completing their research project. Instructor approval required.  
**Prerequisite(s):** You must request Customized Academic Learning using the Customized Academic Learning form found in Student Self-Service: Registration > Online Forms.  
Distribution Area: Humanities, Social and Behavioral Sciences  
AS Foundational Abilities: Writing and Communication (FA1), Projects and Methods (FA6)  
Writing Intensive

**AS.145.516. MSH Honors Thesis. 1 - 3 Credits.**

This class is for the MSH majors completing their honors thesis.

Instructor approval required. This course can be taken for up to 3 credits with instructor approval.

**Prerequisite(s):** You must request Customized Academic Learning using the Customized Academic Learning form found in Student Self-Service: Registration > Online Forms.

AS Foundational Abilities: Writing and Communication (FA1), Science and Data (FA2), Projects and Methods (FA6)

Writing Intensive