

BASS CONNECTIONS

Undergraduate Courses
Spring 2018



Undergraduates can make an appointment with one of the Directors of Academic Engagement (advising.duke.edu/dae) to develop their own educational pathways of problem-focused interdisciplinary experiences.

Energy & Environment

ENV 201: Integrating Environmental Science & Policy

Charlotte Clark, Patrick Halpin

This course focuses on ecological and earth system cycles, processes and relationships; the environmental impact of human-induced change; the role of technology and the policy process in determining how environmental problems evolve and are addressed; the use of ethical analysis to evaluate environmental tradeoffs; and the use of case studies to integrate disciplinary perspectives on environmental problems and to address issues of environmental justice.

Prerequisite: Environment 102 or consent of instructor.

Brain & Society

NEUROSCI 267/ETHICS 269/PHIL 353/PSY 278: Neuroethics

Scott Huettel, Walter Sinnott-Armstrong

This course focuses on emerging ethical controversies concurrent with advances in neuroscience. Background material includes concepts and methods in neuroscience and theories of ethics and morality from philosophy, law and other fields. Ethical topics include biological bases of morality; emotions and decision-making; neuroeconomics and neuromarketing; pathologies of mind and behavior; and volition and legal culpability. Prior coursework in neuroscience and/or ethical inquiry is recommended.

Bass Connections Open

PUBPOL/GSF/DOCST/THEATRST/LIT/DANCE 290: Stories for Social Change: Confronting Sexual and Domestic Violence at Duke and in Durham

Madeleine Lambert, Lynden Harris

Students design strategic initiatives based on theory, policy, fieldwork and performance to address sexual and domestic violence. Students research and discuss cases and root causes; collaborate with artists, policymakers, service providers and victim-survivors to document oral histories and create and perform material from interviews.

Education & Human Development

EHD 290S-01 & 290S-02: Social Science Research Lab

Lab Contact: Jessica Sperling

The Lab engages students in project-based learning in social science research principles and their real-world application. Two Spring 2018 courses are offered (both Tu/Th, 1:25-2:40).

Option 1

Evaluating Health Innovation (EHD 290S-02, SS)

This course, in partnership with the Duke Institute for Health Innovation, includes a dual focus on 1) methods and practices in social science research; and 2) substantive issues related to the partner, including healthcare as a cause and consequences of social problems, evolution of healthcare financing and administration, and innovation's role in solving healthcare challenges. Students have the opportunity to engage in project-based evaluation consulting work. *This course counts as an elective for the I&E Certificate and the Science & Society Certificate; it can serve as a Civic Engagement & Social Change Certificate elective if aligned with a student's pathway.*

Option 2

Community Data in Action (EHD 290S-01, SS)

This course, in partnership with DataWorks, includes a dual focus on 1) methods and practices in social science research; and 2) substantive issues related to the partner, including industrial history and its influence on urban geography, real estate markets and neighborhood change, and contemporary challenges of urban planning and community economic development. Students have the opportunity to engage in project-based work with DataWorks. *This course counts as an elective for the Civic Engagement & Social Change Certificate and the I&E Certificate.*

Global Health

BME 290L/GLHLTH 390L: Women's Health & Technologies

Nimmi Ramanujam, Rae Jean Proeschold-Bell

Students learn about global poverty and how it disproportionately affects women. Teams investigate how design thinking can be used to explore, understand and generate solutions to global challenges. The course focuses on the human element of human-centered design.

Global Health

GLHLTH 306/PUBPOL 324: Global Health Policy: Transforming Evidence into Action

Gavin Yamey

This course examines how to close the gap between evidence and practical policymaking as a way to improve global health; how global health policies are shaped; key actors and their power; processes that drive large-scale change in global health; ways in which health issues reach the top of the agenda; how decisions are made by policymakers; and how to implement policies from the top down and bottom up.

Bass Connections Open

SOCIOL 347: Managing Networks

Lisa Keister

Networks are pervasive in the social, economic, political and natural worlds. Network data and methods – and concurrently our ability to conceptualize and analyze networks – have expanded dramatically in recent years, and Duke is a central location in which this research is being conducted. This course is about the role that networks play in organizations. It involves faculty from across schools and outside expert perspectives, and includes project-based assignments.

Information, Society & Culture

ISS 356S/VMS 358S/EDI 356S: Digital Durham

Trudi Abel, Victoria Szabo

This course engages students in representing Durham's past and present through digital media. Students digitize historical and cultural materials, conduct research in the archives and public records and present information through various forms including web pages, databases, maps, video and other media. This course also analyzes the social impact of new representations of place and space.

Global Health

GLHLTH 373: Global Health Research & Ethics

Sumedha Ariely

Students learn how to understand and engage in ethical health service, intervention, research and education. This course explores standards of care, access to care and best outcomes vs. distributed justice, while focusing on ethics related to infectious diseases; obesity, alcohol and tobacco; and environmental health.

Information, Society & Culture

ISS 376/DANCE 308/THEATRST 364/ECE 364: Performance and Technology

Martin Brooke, Thomas DeFrantz

This course provides a workshop exploration of technologies embedded in performance: robots, media and computer interface. Students create performance projects and discuss theoretical and historical implications of technologies in performance. The course is open to dancers, actors, musicians, spoken word artists and all those interested in technology and the arts. No previous experience or programming skills are required.

Global Health

BME 590S-04: Intercontinental Engineering Design

William Reichert

The Duke-MUK partnership is a commitment between Duke and Makerere University in Uganda to collaborate on the education of engineers and the development of biomedical devices to address current healthcare needs in Uganda. This course integrates the design and anthropological elements of Duke-MUK into a single course offered to both BME and global health undergraduate and graduate students.

Global Health

GLHLTH 590S: Introduction to mHealth

Lavanya Vasudevan

Mobile phones are catalyzing the delivery of health services and information in low-resource settings. This course follows the mHealth lifecycle with a strong focus on developing sustainable applications that can be integrated within national health systems in developing countries. Students are introduced to user-centered design, system architecture, business models and mobile data privacy. By the end of the course, students will be able to build an android case management application using open source software. No programming experience required.

Bass Connections Open

ECE 590S-05: Introductory Machine Learning for Data Science

Kyle Bradbury, Leslie Collins

In almost every field, there is a need to draw inference from or make decisions based on data. This course provides an introduction to machine learning that is approachable for students of diverse disciplines. Students learn to structure a machine learning problem, determine which algorithmic tools are applicable to a given problem, apply those tools to diverse data examples, evaluate the performance of their solution and learn how to accurately interpret and communicate their results.