Artificial Intelligence in Healthcare

Instructors: Freya Gulamali / freya.gulamali@duke.edu; Saanvi Pawa / saanvi.pawa@duke.edu

Faculty Sponsor: Dr. Kate Bundorf / Sanford / kate.bundorf@duke.edu

Course Description

With the disruption caused by Artificial Intelligence (AI) reaching new heights across industries, this course aims to dissect the various considerations required to implement an AI tool into clinical settings. In recent years, numerous AI tools have been created to diagnose patients, assess risk, or reduce administrative burden. However, few have been deployed into clinical settings. This course will be divided into seven two-week modules where we will learn, evaluate, and discuss the role of AI from the perspective of each stakeholder interacting with the tool—clinician that uses the tool, health system leaders that approve the tool, lawyers who assess liability, policymakers that craft legislation and guidance to ensure safe and responsible use of the tool, etc. By the end of the course, you will have heard from people working in each of these areas and gain a significantly deeper understanding of how to overcome the inevitable challenges in using AI to improve patient wellbeing.

Applied Introduction to Quantum Computing

Instructor(s): Jack Weinberg (jack.weinberg@duke.edu); Shelby Hartman

(shelby.hartman@duke.edu)

Faculty Sponsor: Professor Kenneth R. Brown—ECE, Physics & Chemistry

(kenneth.r.brown@duke.edu)

Course Description

Introduction to basic quantum computing theory and quantum algorithms. The course will start with theories on linear algebra formalism and postulates in quantum mechanics, and then proceed to quantum circuits and algorithms and hardware with an emphasis on hands-on experience using IBM Qiskit platform.

The Art of Conversation

Instructor(s): Chloe Young and Griffin Storm / chloe.young@duke.edu and

griffin.storm@duke.edu

Faculty Sponsor: Andrew Nurkin / Public Policy / andrew.nurkin@duke.edu

Course Description

Is there any 21st-century skill more important than being able to sustain confident, meaningful conversation? From professional networking to flirting to chatting on the C1, conversation is not only powerful, but required. This course will give you the tools you need to be a better interviewer, storyteller, friend, and overall communicator. Interact with guest speakers

including journalists, conflict mediators, relationship specialists, entrepreneurs, and other expert conversationalists. We will explore the value of questions, how to share humanity with any person you meet, the skill of active listening, and the service of silence. Aren't you tired of having the same stale conversations?

Be Well. Stay Well. DuWell: An Introduction to Personal Wellness

Instructors: Chyler Turner, chyler.turner@duke.edu; Job Trahan, job.trahan@duke.edu
Faculty Sponsor: Dr. Nicole Schramm-Sapyta | nicole.schrammsapyta@duke.edu Associate
Professor of the Practice | Duke Institute for Brain Sciences

Course Description

A house course focused on student wellness, "Be Well. Stay Well. DuWell: An Introduction to Personal Wellness" aims to engage students in the six dimensions of health and wellness and provide opportunities to interact with their own wellness philosophies. It will incorporate oncampus and community resources that will assist students in embarking on their wellness journeys. The primary focus will be on aspects of the daily lives of students and the power they have to alter and improve upon them in order to foster a stronger sense of overall well-being. The course is based on the University Wellness Center's "six dimensions of wellness" strategy which separates Wellness into the following categories: Mind and Body, Financial, Social, Intellectual, Environmental, and Spiritual. This course will spend at least one session on each of the dimensions, evaluating the campus culture of each dimension, examining student relationships to each dimension, and brainstorming strategies to improve each dimension in the students' lives.

Chinese Tea Culture and History

<u>Instructors:</u> Richard Gao / <u>xianglong.gao@duke.edu</u>; Livia Maguire / <u>livia.maguire@duke.edu</u> <u>Faculty Sponsor:</u> Sue Wasiolek / Associate Vice President for Student Affairs and Dean of Students, <u>dean.sue@duke.edu</u>

Course Description

In the Chinese Tea Culture and History house course, students will learn about the culture, history, and brewing techniques of Chinese tea dating back to over 2000 years ago. The classes will consist of lectures, discussions, videos and tea ceremony demonstrations designed by Vincent Liu and the instructors. There will also be a co-curricular experiential learning component of hosting tea tastings among groups of students on campus outside of class. Students will taste some of the most famous examples of Chinese artisan teas.

Condoms and Counseling: Sexual Health at Duke

Student Instructors: Gabrielle Fry, gabrielle.fry@duke.edu; Seth Rendon, seth.rendon@duke.edu

Faculty Sponsor: Dr. Pete Sigal, Professor of History and Gender, Sexuality, and Feminist Studies

Course Description

College students aren't always well informed on their sexual health. Unfortunately, it is oftentimes difficult to engage in such conversations regarding sexual health and pleasure comfortably on campus. Thus, Condoms and Counseling seeks to provide a safe space for this dialogue and to empower its students with the language to articulate their autonomy as sexual beings while also affording comprehensive sexual education. This course will prepare its students for continued involvement with the PASH center (Peer Advocacy for Sexual Health) in the capacity of a peer advisor and PASH chat facilitator.

The Crisis of Meaning

Student Instructors: Jason Murray Jr (jason.murray@duke.edu), Luca Adamo

(luca.adamo@duke.ed)

Faculty Sponsor: Jed Atkins (jed.atkins@duke.edu)

Course Description

In recent decades Western societies have made measurable progress along the measures of affluence, political freedoms, and scientific-technological advancement. Shockingly, these measures do not correlate with happiness. People today report greater levels of depression, loneliness, and anxiety than in the past. In other words, society is undergoing a crisis of meaning. This course will query what are the possible sources of meaning, and what are the causes of the lack of it today. Topics we will consider are: Does the economic structure of modern society make personal relationships and community more difficult? Do technology and social media make us happier or sadder? Are politics and group identities alienating us from each other? Can a rediscovery of beauty bring significance to our lives? Do we need religion and spirituality to find meaning? Our house course will consider these and similar questions.

Decolonizing Global Health

Instructors: Akhilesh Shivaramakrishnan (as1231@duke.edu); Seth Liyanapathirana

(snl36@duke.edu); Hishi Ulak (hu9@duke.edu)

Faculty Sponsor: Dr. Sumedha Ariely, Associate Professor of the Practice

Course Description

Modern health is a field intertwined in colonial origins, which still determines how fieldwork and programs are coordinated today. As Duke students, you've likely heard about the "Decolonizing Global Health" movement or the term "decolonizing". By the end of this course, students will have an introductory understanding of how colonialism shapes power structures, partnerships, and even the positions in global health we occupy as undergraduate students. Although this course will focus on global health, all students are encouraged to participate as colonialism is omnipresent in the world we live in today, not just in the health field. Many of

you may likely work in scenarios where you see a power imbalance. Whether this is through global health fieldwork or a position at your next job, the concepts you learn and the skills developed through learning about the decolonizing global health movement can serve as important contextual background.

Disability Narratives: Justice and Activism

Instructors: Jaden Sacks/ jss162@duke.edu; Kavya Jain/ kj184@duke.edu; Sabrina Sebastian-

San Miguel/ses159@duke.edu

Faculty Sponsor: Dr. Jehanne Gheith/gheith@duke.edu

Course Description

This course aims to focus on disability studies through the narratives of individuals with disabilities. Students will gain a deeper understanding of the nuances of disability justice, activism, and allyship through analyzing and discussing various writings, art pieces, performances, and films throughout the semester. This course is especially critical at Duke University, where the disability field is not supported by an academic department and no formal academic track is offered to students interested in this field. Students are encouraged to challenge the various cultural understandings of mental differences and how they manifest in popular media and common stigmas surrounding disability. In an ableist society where individuals are often pathologized, we also plan to study how these social, cultural, and political structures create day-to-day struggles in the disabled lived experience. Throughout this course, we will read, discuss, and learn from disability narrative stories. The course will explore the following: ableism and the power of language, history of disability justice, intersectionality, representation in media, and global perspectives. This course will primarily consist of interactive lectures, group discussion, guest speakers, and more. We hope that this course serves as a gateway for students to become more involved or continue their involvement in disability activism efforts on campus and to explore other forms of scholarship on campus.

Disney Parks: Business, Leadership, and American Culture

Instructors: Calvin Cho (<u>calvin.cho@duke.edu</u>) and Jason Rosenbloum (<u>jar144@duke.edu</u>) Faculty Sponsor: Lisa Andres (<u>lisa.andres@duke.edu</u>), Thompson Writing Program

Course Description

In this course, students will delve into the Disney Parks, aiming to uncover the interplay between business strategies, leadership dynamics, and American cultural influences embodied within these entertainment realms. They will strive to develop a nuanced understanding of how the foundational American values are reflected in the evolution and operations of DisneyParks. Through an analysis of the parks' history and leadership, students will aim to grasp how visionary leaders have navigated the complex waters of the entertainment industry while aligning with America's socio-cultural and economic narratives. Additionally, the course endeavors to equip students with the ability to critically analyze and evaluate the impact of

narrative construction within the parks, and its broader implications on audience perceptions and historical representations. By engaging with primary texts and undertaking a capstone project, students will work towards formulating strategic visions that could guide the future trajectory of Disney Parks in sync with evolving American values and global cultural trends. Through this academic journey, students are expected to foster a deeper appreciation for the multifaceted roles Disney Parks play in the business landscape, leadership realms, and the American cultural narrative.

Durham Giving Project

Instructor(s): Aubteen Pour-Biazar (<u>aubteen.pourbiazar@duke.edu</u>), Senou Kounouho

(senou.kounouho@duke.edu)

Faculty Sponsor: Sam Miglarese, Adjunct Instructor in the Program in Education

(sam.miglarese@duke.edu)

Course Description

Durham Giving Project is a course that exposes students to various issues in Durham and pushes them to think of different philanthropic methods for serving nonprofits in this city and beyond. Classes will begin with a unit on the history of Durham, then alternate between units on discussing key societal issues and understanding the role of nonprofits and fundraising. Students will explore the actions different local nonprofits are taking in housing, healthcare, education, and food insecurity, and will be challenged to reflect on the nature of Duke's responsibility to Durham in these different contexts.

Experiential Education & Outdoor Leadership

Course Instructor: Zachary Karmel - zachary.karmel@duke.edu Faculty Sponsor: Nicolette Cagle - nicolette.cagle@duke.edu

Course Description

This course aims to introduce principles of outdoor leadership largely through the realms of experiential education, seminar-style discussions, and personal reflection. While aiming to keep the lessons applicable to varied situations in the outdoors, or even in the 'paved world,' the lessons will use group backpacking expeditions as a framework for learning. The class is framed by current issues with accessibility of the outdoors but also with its historical context as well. Students are encouraged to engage in their local outdoor spaces as well as planning their own small group weekend trip to gain real experiences with organization and leadership in the outdoors. In class, students will discuss topics including risk and emergency management, history of race, sex, and gender in the outdoors, non-directive leadership, consensus, and environmental stewardship and justice. They will hone skills that will aid in navigating risk-taking, interpersonal relationships, and group dynamics.

Exploring the Future of Mental Healthcare

Instructor: Luke Rubin / luke.rubin@duke.edu

Faculty Sponsor: Dr. Cynthia Kuhn / Pharmacology & Cancer Biology/ ckuhn@duke.edu

Course Description

This course aims to explore how new clinical research and advancements in the understanding of how the brain & body work have resulted in novel approaches to mental health treatment. Students will learn how psychedelic substances have emerged in the psychiatric treatment space with the potential to address various mental health conditions. We will also examine how other personalized mental health approaches, both holistic and mind-focused, have gained momentum as important elements in developing and maintaining a solid mental health foundation.

Faces of Durham Re-Entry

Instructor(s): Jenna Smith / <u>jenna.smith@duke.edu</u>; Viktoria Wulff-Andersen / <u>viktoria.wulffandersen@duke.edu</u>; Will Lieber / will.lieber@duke.edu

Faculty Sponsor: James Chappel / Kenan Institute of Ethics / james.chappel@duke.edu

Course Description

This course will empower students to engage with the criminal-legal landscape in Durham as partners with activists and those who are justice-involved. We will learn about mass incarceration and re-entry through a series of readings and discussions with people who have experienced incarceration or have worked in re-entry in Durham. Readings will connect themes of race, power, gender, and socioeconomic status to the lived experience of justice-involved community members. Students will gain an understanding of the causes of mass incarceration and recidivism and the ways to create a more equitable justice system.

Feminist Ethics (Taylor's Version)

Instructor's Information: Zoë Macomber (she/her), <u>zoe.macomber@duke.edu</u> Faculty Sponsor: Dr. Taylor Black, t.black@duke.edu Assistant Professor of English

This course uses Taylor Swift's discography to explore theories and critiques of celebrity feminism. Together, we will examine the role and brand of Taylor Swift as a superstar artist, celebrate Swift's works, and weave together an exploration of how one is derived from and creates the other. Each week will cover one of Swift's 10 albums - or "eras" - as well as feminist themes spanning her career. Students should be prepared to respectfully and thoughtfully critique events and incidents throughout Swift's career. The goal of this course is to integrate a sincere appreciation for Swift's music with an academic consideration (& critique) of feminist progress epitomized through her career.

Foundations of Scientific Research

Instructor(s): Julia Lin / <u>Julia.lin352@duke.edu</u>; Madiha Khan / Madiha.khan@duke.edu

Faculty Sponsor: Bernard Fischer / Pediatrics / bernie.fischer@duke.edu

Course Description

This class is designed to expose students to the academic side of research as they learn how to synthesize results, present them, and explore related topics. Students will analyze and discuss published research articles, engage in conversations with professors about different aspects of research, and design and present their own research. These professional development seminars are designed to complement the students' work in their research labs. Recommended for students looking for first - time research experience, internships, pre-medicine research hours.

The Gratitude Equation: Adding Joy to Life at Duke

Instructors: Danica Bajaj / danica.bajaj@duke.edu

Faculty Sponsor: Sheryl Welte / Writing Department / sheryl.emch@duke.edu

Course Description

Gratitude isn't just a fleeting "thank you"; it's a life-changing mindset. In this course, we'll embark on an exploration of gratitude's scientific foundations and its practical applications in your daily life. Through hands-on activities, insightful readings/discussions, and the completion of Duke bucket-list items, you'll develop the tools to cultivate gratitude, leading to increased well-being and personal growth here at Duke.

The Health of Higher Education Systems in the United States

Instructor: Maggie Tripp / maggie.tripp@duke.edu

Faculty Sponsor: Dr. Rukmini Balu / Duke Global Health Institute / rukmini.balu@duke.edu

Course Description

As the next class of Duke University graduates crosses the commencement stage in a few months, their diplomas are not the only thing that will be awaiting them. They will have officially surpassed the educational attainment levels of nearly 62.2% of Americans, placing them on the path to a healthier and longer life (United States Census Bureau). In its truest form, higher education is an investment in one's health. Compared to their less-educated counterparts, college graduates have significantly greater access to the very resources a healthy lifestyle demands: stable living wages, quality housing, nutritious foods, etc. Understanding the life-changing benefits of higher education, while simultaneously recognizing the health disparities and income inequality very present within our country, we must ask: Why doesn't everyone simply take this path? This course challenges students to explore, discuss, and critique this question, with the eventual objective being to answer the reciprocal question: Is this path attainable for everyone? In questioning the accessibility of higher education in the US,

students will closely study the current admissions processes, focusing specifically on the barriers students from low-income, minority communities face while applying to higher education programs. Moreover, students will discuss the current mental health crisis occurring on college campuses across the US and consider how one's identity may shape their experience at a higher education institution.

How to Save a Life: An Introduction to Emergency Medicine

Instructors: Michael Sheyner, michael.sheyner@duke.edu / Amy Fulton, amy.fulton@duke.edu

/ Shivam Singh, shivam.singh@duke.edu

Faculty Sponsor: George Grody / MMS / george.grody@duke.edu

Course Description

A house course dedicated to developing an in-depth understanding of the management of medical emergencies. Taught by members of Duke University EMS, students will gain an introduction to emergency medicine with applications to real world situations, particularly within the Duke and Durham community. Covered topics include how to react if someone goes into cardiac arrest, how to help choking victims, how to care for burns, how to bandage wounds, how to splint injuries, and much more. Beyond that, the course will delve into modern advancements in emergency medicine, as well as many of the issues which medics and emergency department physicians still face today. No prior medical experience is necessary, but the course aims to provide valuable medical knowledge. Skills will be taught, but a large emphasis will be placed on the importance of emergency interventions and how improvements can/have been made to emergency medical systems. Students will also be introduced to more ways they can become involved with emergency medicine in the Duke and Durham community if they choose to pursue them.

Impact Investing

Instructors: Aamer Husain (<u>aamer.husain@duke.edu</u>), Miran Bhima (<u>mb793@duke.edu</u>) Faculty Sponsor: Erin Worsham (<u>erin.worsham@duke.edu</u>), Fuqua School of Business

Course Description

In a world dominated by desire for growth, sustainable and empowering impact has become inextricably tied with financial well-being, ranging from proper external investment strategy to appropriate internal allocation policies. To successfully innovate in the contemporary world, there will always be a requirement to understand the fascinating flows of money, the increasingly interconnected webs of wealth, not only to fund ideas but also to establish impact. This course aims to bring attention to Impact Investing, a multifaceted field with roots in corporate social responsibility, social entrepreneurship, development economics, and financial services. We will explore impact investing at the intersection of these usually distinct industries. By the end of this course, we will not only understand why impact investing is widely regarded

as the most applicable pathway to social impact at scale, but also have developed the skill set necessary to implement and manage impact investment funds.

Introduction to Blockchain

Instructor(s): Malika Rawal / malika.rawal@duke.edu; Zibran Vastani /

zibran.vastani@duke.edu

Faculty Sponsor: Professor Akin / victoria.akin@duke.edu

Course Description

This class is an introduction to blockchain technology and its applications. Having built momentum in the past few years, blockchain is considered the next generation of the internet and poised to revolutionize the way we exchange value. The course will start off with an introduction to the underlying technical principles and cover two of the most popular blockchain technologies, Bitcoin and Ethereum. Students will learn about innovative new applications of both public and private blockchains in industries such as music, finance, insurance, healthcare, and more. The course will culminate in a final project in which students come up with their own venture utilizing blockchain technology.

Introduction to Observational Drawing & Fine Arts

Instructor: Marie Cheng (mwc33@duke.edu) Faculty Sponsor: Bill Fick (bill.flick@duke.edu)

Course Description

This course will teach the fundamentals of observational drawing and its accompanying history. Coursework will focus on classical techniques with historical significance. Provided readings will cover critical analysis of the "Old Masters" eras, ranging from the Italian Renaissance to Dutch Realism to Neoclassicalism. During class, students will apply concepts of light, form, and composition in a studio environment with an emphasis on from-life observational drawing. From rendering their first 3D ball to capturing complex still life compositions and mastering traditional underpainting techniques, students will receive guidance at every step. In-class practice will provide students with the means to explore artistic dispositions and interests they may have never had an opportunity to invest in. No artistic or art history experience required or preferred, only an interest and dedication for honing your critical artistic eye!

Life Beyond Capitalism: Economics for the People & Planet

Instructors: Renee Urtusastegui - <u>renee.urtusastegui@duke.edu</u>; Aaron Lam - aaron.lam@duke.edu; Annabel Miller - annabel.miller@duke.edu

Faculty Sponsor: Dirk Philipsen, Sanford School of Public Policy, dphilips@duke.edu

Course Description

Creating something new with the tools of the old does not work. We cannot build communities focused on wellbeing, reciprocity, safety, and justice within an economic system geared almost exclusively toward profit and growth. This course is for students who sense that something fundamental is wrong about the system in which we live—and that we study to become part of. Too often, we sit in the comfort of our classrooms and identify challenges without proactively discussing solutions. This course confronts the premises we so often take for granted, and empowers students to think beyond neoliberal economics and envision something better. If yet another racial equity workshop or task force is not the answer to structural racism, then what is? If replacing fossil-powered cars with electric vehicles is not the solution to climate collapse, what is? If escalating work hours and screen-time are not the means to a meaningful life, what is? If new regulatory guidelines, triple bottom lines, and corporate social responsibility commitments barely make a dent in our pillaging of the planet, what would? In this course, students will break down the fundamental dynamics that make capitalism so destructive. Students will learn about alternative ways an economic system can be designed for the benefit of the people and the planet, and analyze examples of these new systems in action across the globe.

Medicinal Chemistry and Other Chemical Applications

Instructor: Justin Zhang / Chemistry / jyz12@duke.edu

Faculty Sponsor: Charlie Cox / Chemistry / Charlie.cox@duke.edu

Course Description

Chemical interactions can be found everywhere around us, and pharmaceuticals are no exception. Chemistry plays a critical role in many pharmaceutical processes, from the mechanism of action to the research and optimization of modern pharmaceuticals. This course aims to elucidate the mechanisms of these drugs from a basic scientific viewpoint and review the history of the many seminal developments that have occurred in medicinal chemistry. No prior chemistry or biochemistry knowledge is necessary. Emphasis will be placed on developing insight into the creative applications of simple principles to achieve desired goals. This course will support students in developing an understanding and appreciation for chemistry in medical applications.

Meritocracy

Instructors: Thorin Chappel / thorin.chappel@duke.edu; Christina Wang /

christina.wang@duke.edu

Faculty Sponsor: Michael Gillespie

Course Description

Do people earn their success? Should we reward people based on their ability and achievement? Who should rule: the virtuous and competent or the people's choice? This course examines the concept of meritocracy and its application in American society.

We will draw on philosophy, politics, and public policy to examine how meritocracy works and whether it achieves its goals. We will cover the role of meritocracy in Western society, the extent to which America is a meritocracy, and the potential meritocratic governance, including cross-cultural perspectives. First, we look at the history of meritocracy to uncover what exactly it means to "merit" a reward and how a society could be structured on this framework. We examine Plato and Aristotle, as well as Adam Smith and the capitalist roots of meritocracy. This section culminates in a philosophical analysis of the perfect meritocracy, posing the question: even if there were no empirical difficulties, would we want to live in a meritocracy? Having clarified our concept of meritocracy, we turn to its application in America. We begin with the American dream, and move into analysis of various institutions (elite colleges, credentialism, hiring practices) and communities. Our goal is to assess to what degree the current systems of America are meritocratic. Finally, we look at another kind of meritocracy: the political sort. Rather than focusing on how the rewards of society are distributed, we ask the question, who should rule? We examine to what extent American democracy implements a meritocratic system of selection for representatives and other officials. We then turn to compelling perspectives from contemporary Confucian thought. First we examine Daniel Bell's "China Model," and then Joseph Chan's synthesis of Confucian meritocratic values and Western democracy. We conclude the course with a discussion of college admissions practices. Having examined the concept and practice of meritocracy, what are we to do about the practical problem of elite admissions?

Middle School Matters: Outreach with Durham Public Schools

Student Instructors: Amaya Hanley (<u>aah73@duke.edu</u>); Casey Powell (<u>cjp65@duke.edu</u>); Selom Bediako (sab182@duke.edu)

Faculty Advisor: Dr. Victoria Lodewick, Director, University Scholars Program, affiliated with Program in Education (val1@duke.edu)

Course Description

What constitutes a "good education" and who gets access? Why does it matter? How has public education in the city of Durham evolved over time and how has it impacted the community? Middle school is a particularly crucial time that is often overlooked. What makes this stage of education particularly fraught... or exciting? There is nothing more critical to college students than understanding how children in our own community learn and the challenges they face, which impacts the trajectory of the rest of their lives, from whether or not they go to college to the kinds of jobs they get and how much they can earn. This course follows the model of Community-Engaged Learning and "offer[s] enriching aspects of working in the community and opportunity for critical reflection on ethical service experiences." It will prepare undergraduates who are interested in tutoring and mentoring at Neal Middle School with the Bull City Scholars organization, or other outreach opportunities with Durham Public Schools. By engaging with readings, class discussions, guest speakers, and films, students will begin to understand the history of public education in the city of Durham, the demographic and infrastructural shifts that have impacted the community over the past 20 years, and the particular challenges to college access that students from socioeconomically disadvantaged backgrounds face.

The Not-So-Old Testament: How Is the Hebrew Bible Relevant Today?

Instructor: Brent Strawn, <u>bstrawn@div.duke.edu</u>, D. Moody Smith Distinguished Professor of Old Testament; Professor of Law

Course Description: What does the Old Testament (also known as the Hebrew Bible) have to do with today...if anything? Many modern individuals might think that it is mostly irrelevant, and some of those individuals are religious people! Still others, especially the deeply devout, would likely say it is indispensable to a proper understanding of faith, life, and the world—even now. This course intends to explore the (possible) significance of one of humankind's oldest surviving collections of sacred literature. The topics of potential relevance include such pressing matters as science and religion, morality and politics (e.g., care for the poor and immigrant), and law and justice, not to mention philosophical problems like the existence of God, the nature of the good life, and the problem of ethics (including violence). And what about the many difficult texts that this ancient book presents? How ought modern readers think about those amidst everything else? Do even the troubling texts have something to contribute to contemporary life and thought, to the best ways of being in the world today? Take this course if you'd like to find out!

Pink Floyd and the Concept Album

Instructor: Michael Bell / mab161@duke.edu / 832-547-8666

Faculty Sponsor: Dr. Philip Rupprecht / Department of Music / philipr@duke.edu

Course Description

The legendary rock band Pink Floyd champions the intersection of music and storytelling. Their discography features many timeless concept albums that each present a unique and emotionally sophisticated reflection on the human experience. Pink Floyd and the Concept Album is an exploration of five influential records of the band's "Golden Age": Dark Side of the Moon, Wish You Were Here, Animals, The Wall, and The Final Cut. In this course, we will analyze these records deeply to extract our own meaning, and we will develop a greater appreciation for concept albums outside of this course.

Queer Representation in Contemporary Media

Student Teacher: J Shoemaker (he/they): <u>jes155@duke.edu</u> Faculty advisor: Chase Black (he/him), chase.black@duke.edu

Course Description

This course looks at representations of queer sexualities and identities in popular US media. We seek to question the tropes and stereotypes in which queer identities are presented and begin a discussion on how to create more accurate, respectful, and affirming forms of representation.

We want students to finish the house course with the ability to locate and critique queer identities and sexualities in television, film, fiction and audio dramas. We will contextualize the contemporary proliferation of queerness in media as a way of better understanding how—and if—the popular culture has come to overcome its historical repression and censorship of queer desire. Students will walk away with not only further knowledge into pieces of media they can find their own identities in, but also the background and critical skills to analyze the media they consume and an understanding of how to improve the queer media scene today. Students will be asked to consider the questions:

- 1. What was the historical state of Queer representation and how has that affected the tropes and stereotypes we see today?
- 2. Where has emerging acknowledgement/incorporation of queer identities in popular media shown up today?
- 3. What motivates this change? What has caused certain forms of media (podcasts, web comics, etc.) to shift to queer inclusivity more quickly/popularly than other forms of media?

Queer Mental Care and Well-being: Dispelling Stigma and Motivating Change

Instructor: Gabe Caress (they/them), agc44@duke.edu
Faculty Sponsors: Dr. Gabriel Rosenberg (he/him), Associate Professor GSF/ History, gabriel.rosenberg@duke.edu; Dr. Jules Odendahl-James (she/her), Arts & Humanities Disciplinary DAE, jao@duke.edu

Course Description

There has been a recent surge in mental health awareness along with research into LGBTQIA2+ populations. Society is becoming progressively more accepting of both LGBTQIA2+ rights and individuals facing mental health issues. This house course identifies the following three issues as critical to address: queer policy, mental health awareness, and a synthesis of the two. By bringing these issues to the table, this house course takes measures to make a tangible change. This course is very interdisciplinary, emphasizing health, law, language, and psychology, with the aim to analyze the ways in which identity shapes mental health and to study queerness at large. Students will be challenged to draw upon a myriad of research, frameworks, and approaches to fully understand and explore these topics. No prior knowledge of queer studies or psychology is necessary. The course aims to be comprehensive, and is built from the ground up upon the fundamentals of abnormal psychology and basic frameworks of queer studies; together, we will collaborate to explore the topic through multiple mediums. This course is also built around writing your final 5-page paper in collaboration with your teacher (through 2 individual meetings) and your peers (through peer editing); this is done purposefully and progressively so that you leave with a writing sample that you are proud of and can utilize in the future. It is important to note that material in the course may be potentially triggering or distressing to some students. This course will discuss complicated issues pertaining to mental

health and sexuality, and some of the materials that we will ask students to view may be graphic. If you have any concerns about this please be sure to contact the course teacher and sponsors, and we will make the necessary accommodations.

Raising Women in Power at Duke and Beyond

Instructors: Bianca Sjoenell, Email: <u>bianca.sjoenell@duke.edu</u>; Chisom Ezigbo, Email: chisom.ezigbo@duke.edu

Faculty Sponsor: Jenny Wood Crowley, Assistant Vice Provost for Undergraduate Education - Intellectual Community, Email: jenette.woodcrowley@duke.edu

Course Description

This house course aims to offer students an exploration of how women and other people of marginalized genders empower themselves and one another at Duke University and in their individual communities. We will examine the concept of empowerment through a gender studies and sociological perspective. The course will analyze dynamics of power and agency, historical and contemporary feminist movements, and real-world examples of institutionalized inequalities. Students will think critically about how the intersectionality of gender with other social identities manifests itself on campus, and how this shapes the experiences of students from diverse backgrounds. Learning about the principles of activism and advocacy, students will rethink campus culture and group norms. They will serve as examples of strong, smart leaders, and will graduate prepared to play a significant role in society, regardless of their chosen career paths. This course is modeled after the objectives of the Baldwin Scholars Program and is designed to spread its mission to the larger Duke population.

Regenerating Our Food Systems: the Duke Campus Farm House Course

Instructors: Gurnoor Majhail (they/them) gkm11@duke.edu; Olivia Ares (she/her) ora4@duke.edu; Natalie Lewis (she/her) natalie.v.lewis@duke.edu

Faculty Sponsor: Saskia Cornes (DCF Director/Franklin Humanities Institute) sc386@duke.edu

Course Description

Have you ever eaten food? This course aims to provide an overview of sustainable food systems and farming using initiatives at the Duke Campus Farm as a starting point, to ground our approach theory in a particular context and place. Students will explore crucial questions about food systems, equity, agroecology, and justice through critical analysis of assigned texts, interactions with guest speakers, and experiential learning on the farm. The course places an emphasis on how the North Carolina Piedmont fits into the American South in the context of climate change and community resilience .This course is open and welcome to any level of experience (or no experience!) with food systems work. No affiliation with the Duke Campus Farm is required.

Space Medicine

Instructor Info: Brandon Francis, Luke Steffy, & Sloane Maymen: brandon.francis@duke.edu, lds42@duke.edu, sbm53@duke.edu

Faculty Sponsor: Dan Buckland, M.D., Ph.D., dan.buckland@duke.edu, Department of

Emergency Medicine

Course Description

Astronauts need doctors too! Even better, there's an astronaut physician in space right now. With \$5.8 billion invested in private space companies in 2019 and NASA's annual budget increased to \$25 billion for 2020, humans are venturing further into space, our final frontier. And wherever we go, so does medicine. This course will explore how medicine changes in the unique "environment" of outer space and how the nascent field of Space Medicine is being revolutionized by pioneers at NASA, Baylor College of Medicine, the University of Colorado, and here at Duke! It's a fly by of all the interesting topics that make space such a dangerous place and how humanity is overcoming these barriers. We will have science demonstrations courtesy of some guest speakers in order to bring physics to life, emergency medicine lessons from flight surgeons and flight nurses, and video calls with NASA Doctors! Space travel has an incredible history and future and we would be remiss if we didn't talk about the origins of Space Medicine as well as changes when humans begin commercial space exploration. Part of the allure of space is the diffculty of traveling there. So what happens when an astronaut becomes acutely ill halfway to Mars with no way of turning around? Ethics become guite di cult in space and writing laws before events occur becomes very important. Better yet, how can engineering solutions solve health problems before they occur? This course looks at all of Space Medicine and so it's impossible for anyone to be an expert in all these fields. We assume no background in medicine, engineering, law, ethics, or economics. You don't need to be a pre-med, just curious about the future of mankind.

Symbols of Nationalism: The Power and Danger of Flags

Instructor: Elaijah Lapay, elaijah.lapay@duke.edu

Faculty Sponsor: Shani Daily, Computer Science, shani.b@duke.edu

Course Description

Over the past months, years, and decades, as protests, marches, and proliferation of social media continue across the world in an era of globalization, the visibility of national symbols as markers of identity have grown as well, and have served as a way to unite, divide, restore, and destroy. This course serves as a space and structure to gain a greater global understanding of the rise of "nationalism" and of particular nations through the use of symbols such as flags, emblems, logos, etc. Drawing upon other fields and branches within the social sciences such as political science, history, sociology, anthropology, semiotics, and vexillology (the study of flags themselves), this course looks to understand under a greater context the power that symbols of

nationalism and nationhood have on identity, and why raising, banning, changing, and creating national symbols are complex process that deserve greater mutual understanding.

Transforming the US Healthcare System

Instructors: Ashwin Gadiraju I Class of 2024 | <u>ashwin.gadiraju@duke.edu</u>; Heather Raslan I Class of 2025 | <u>heather.raslan@duke.edu</u>; Julia Gambino I Class of 2025 I julia.gambino@duke.edu

Faculty Sponsor: Dr. Ralph Snyderman, ralph.snyderman@duke.edu, James B. Duke Professor of Medicine, Chancellor Emeritus of Duke University, Director of the Center for Personalized Health Care at Duke University

Course Description

The US healthcare system is the most expensive in the world, yet lags behind those of other high-income countries on benchmarks of quality and access. Increasingly, American healthcare systems and governments are moving towards more personalized, preventive, and predictive delivery models while looking for solutions to address the rising cost of care. Factors like technology, biomedical innovation, and payment reform are shaping major paradigm shifts in healthcare delivery today.

This course will be a broad survey of some of the most pressing and relevant movements happening in healthcare delivery reform. We begin the semester with an overview of the US healthcare system and then delve deeply into issues like chronic disease burden, the intersection of Big Pharma and medicine in its relation to drug development and pricing, and misaligned financial incentives for providers and payers. At the end of the semester, we will analyze the healthcare industry through a policy lens, mapping out the political landscape of healthcare and understanding how ideas become legal realities. Through class discussions, many guest speakers, blog posts, and presentations, we hope to make the course highly engaging and thought-provoking. Ultimately, the goal is for this course to act as a springboard for students to explore personal interests in health care that may help to inform future research or academic endeavors.

Understanding Comics

Instructor(s): Andrew McCallum (acm126@duke.edu), Amal Gupta

(amal.gupta@duke.edu)

Faculty Advisor: Michael D'Alessandro / English Department / Spring 2024

Course Description

Often thought of as solely the domain of leotard-wearing superheroes, comics as a medium have undergone a revolution in the past decade. A survey of the current releases shows a colossal diversity of perspectives. The low barrier to entry makes comics easier to access than many forms of literature – by artists and audiences alike. This class aims to teach an understanding of the range of stories comics share with us.

UNICEF's Humanitarian Revolution: An Innovative Approach to Social Impact

Instructors: Danny Enrico / <u>danny.enrico@duke.edu</u> , Jillian Jacobs / <u>jillian.jacobs@duke.edu</u> Faculty Sponsor: Robin Kirk / <u>robin.kirk@duke.edu</u>

Course Description

As Duke students, you are in a unique position to create real change across the globe. By learning how to best advocate and support those in need, you can make a substantive difference. This house course takes an examination of humanitarian and social issues such as child poverty, education, health, gender equality, and climate change and the innovative approaches that UNICEF (United Nations Children's Fund) utilizes. Students will analyze international NGOs and the efficacy of developmental and humanitarian aid. Provides opportunities to engage with humanitarian and social work career professionals.

Urban Studies 101: Breaking the Duke Bubble

Instructors' Information: Addie Geitner (she/her) Trinity '25; Tate Kahalas (he/him) Pratt '26 tate.kahalas@duke.edu; Mikey Schwartz (he/him) Trinity '25 mikey.schwartz@duke.edu Faculty Sponsor: Dr. Edward Balleisen eballeis@duke.edu Vice Provost for Interdisciplinary Studies, Professor of

History, and Professor in the Sanford School of Public Policy

This course engages with urban studies in two distinct contexts: academic and creative. The former exposes students to the variety of subject areas that constitute urban studies, and encourages them to consider their role in an urban world. This is subsequently used to introduce students to the latter, asking (and attempting to answer!) the question: How can we design and build spaces that are fundamentally good for our health and well-being, economy, safety, and social structure? Course readings introduce students to the multiple subject areas that make up the field of urban studies, namely urban humanities (sociology, cultural anthropology, history, etc), economics, policy, science, design and engineering, arts, and ethics. Urban design, innovation, and planning principles are embedded within these readings to present the practical, optimistic vision of creating high-quality urban environments. Each class is intentionally designed to expose you to a diverse array of global cities, and engage with interdisciplinary themes that are complementary to existing academic programs at Duke. Preclass readings prepare students for in-class discussions on a number of topics. The course is organized around pre-class readings and in-class discussion, and in the second half of the course, students will conduct a case study on a particular urban-centered subject area that intrigues them. Course instructors will meet with students working individually or in teams to discuss potential resources and project expectations. End products are deliberately left to student creativity; they could range from a photo ethnography of a Bangkok wet market to an op-ed supporting the GoTriangle Light Rail proposal.

Venture Launchpad: From Idea to Impact

Instructor(s): Pranay Vure (<u>pranay.vure@duke.edu</u>), Athena Yao (<u>athena.yao@duke.edu</u>)

Faculty Sponsor: Dr. Aaron Dinin, aaron.dinin@duke.edu

Course Description

This course focuses on equipping students with knowledge of the entrepreneurial process and providing them with the necessary resources and support to develop their own idea into a viable venture. During the first half of the course, students will gain a general understanding of topics within initial ideation, product design, founding a company, and startup funding/venture capital. They will gain technical skills through guest speaker lectures and technical workshops on topics such as AI/ML, 3D modeling/computer-aided design, and Figma prototyping. In the second half, students will apply what they've learned to develop an idea/venture of their own, from identifying a problem space to building and testing innovative solutions in a collaborative environment.

Words Mirror Worlds

Student Instructors: Aidan Aronhime: <u>aidan.aronhime@duke.edu</u>; Lia Lemieux:

<u>lia.lemieux@duke.edu</u>

Faculty Sponsors: Luciana Fellin: fellin@duke.edu; Eileen Chow: eileen.chow@duke.edu

Course Description

This course offers an in-depth examination of how languages serve as vibrant reflections of distinct cultures around the globe and how food conveys abstract concepts and emotions within those cultures. In unit one, we explore all the ways in which language shapes culture, from power dynamics to belief systems. In unit two, we venture into a distinct geographic domain each week, offering students the opportunity to closely engage in conversations on the intricate interplay between language, culture, and food to foster the development of essential cultural competence.