Communication, Culture & Technology (CCTP)

CCTP 4018 Digital Law Policy 3 Credits
This course is the undergrad version of CCTP-5018.

The rise of complex digital networks and devices pose a significant challenge to law and policy. Long standing legal and regulatory regimes are often difficult to apply to today's complex technologies, and law often struggles to keep pace with rapid innovation. The globalization of information and communications networks create political tensions about how to govern information flows across borders. The ability of both firms and governments to collect, store, combine and analyze personal information create valuable new services as well as significant risks to privacy, civil liberties and human rights.

The Digital Law and Policy course introduces ongoing and anticipated legal and policy issues for information and communication technologies (ICTs), emphasizing both legal and technological foundations. The course objectives are to give students the foundational skills to analyze legal texts (cases, regulations and statutes), think critically to apply legal principles and identify legal risks to real-life circumstances, communicate effectively about legal and political aspects of technology, engage in the national and global ICT policy debates to come, and firmly understand the underlying technologies from which these issues arise. Weekly participation including case review, in-class exercises and blog entries will drive the classroom discussion. Assignments will include one debate (with accompanying written materials), a short mid-term exam and a final exam.

The course will cover issues related to the Internet and beyond, such as blockchain and digital assets, and the metaverse. Topics include governance of network architecture, free expression and access, intellectual property, consumer privacy and security, liability protections for intermediaries, liability for insecure systems and defective information, government surveillance, computer crime, trans-border data flows, international information policy, and regulatory considerations for digital assets. This course is designed to be useful for and accessible to anyone and a legal or technical background is not required.
Level: Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Students cannot enroll who have a major in Comp Sci, Ethics, Society.
Students cannot enroll who have a minor in Tech, Ethics Society.

CCTP 4020 Social Network Analysis 3 Credits
This is the undergrad version of CCTP-5020. Social Network Analysis (SNA) allows patterns in relationships to be graphed and explored. Whether tracking the flow of information or influence, SNA provides a valuable tool for uncovering the important implications of relationships and social structures. This class balances theory and practice, concepts and computations. The goal of this course is to enable students to conduct SNA research of their own. Students will learn how SNA is currently being used; applications that include the analysis of politics, social media, and disease transmission, among others. Hypothesis testing is a major topic for this course. Students will gain matrix manipulation skills and data management skills. Students will also learn how to graph relationships given a set of data and the mathematical techniques that unearth key pieces of information in these graphs. Data collection methods and ethics will be explored. Strategies for efficient coding and data entry are key aspects of the course that aim to build practical skills. Students will learn relevant mathematical techniques in a supportive, highly verbal manner. Students will also learn computer-based SNA techniques using R and R Studio. These skills will assist students in completing research projects throughout the course of the semester.
Level: Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Comp Sci, Ethics, Society.
Enrollment is limited to students with a minor in Tech, Ethics Society.

CCTP 4021 Computing Meaning of Code 3 Credits
This course is the undergraduate version of CCTP-5021.

This course introduces the key concepts for understanding everything we call “code” and “systems of meaning” in ways that students can apply directly to advancing careers in any field. This course opens up the “black boxes” of computing for everyone, and is designed especially for students from non-technical backgrounds. But if you have done some computer coding already, you will understand more clearly how and why programming languages and digital media are designed the way they are, and how and why we can use “code” in one form (in the “digital language” of computers) for representing, processing, and transmitting all forms of the primary “code” of human thought and expression (in words, images, numbers, graphics, sounds, and video).

In order to “crack the code” of all forms of code, you will learn multidisciplinary methods by learning how to combine and apply knowledge, concepts, and methods from several disciplines on our key topics. You will learn the primary methods and concepts from design thinking, systems thinking, semiotics (the study of sign systems), cognitive science and philosophy, and from key concepts in computer science Learning goals: This course will enable you to learn about computing and all forms of “code” in a new way, by understanding the history of ideas that led to our digital computing era and by actually seeing how it all works in “hands on” practice with software, programming code, and Internet apps. By learning the essential background on “why” and “how” everything we do in computing and digital media is possible by the way it is designed, you will also gain a new motivation for applying this understanding to both the “how to” side of programming (if you want to learn how to code and work with others in designing applications), and to working with others in organizations where design thinking skills enable you to take on a leadership role. The course syllabus, reading sources, and classroom exercises are provided on a custom website designed by the professor (https://irvine.georgetown.domains/711/). Requirements and Grading: The course will be taught as a seminar and will be based on student participation and in-class workshops. Grading will be based on (1) weekly writing, class participation, and group projects (50%), and (2) an individual final research essay or creative project based on applying the concepts and methods of the course (50%). Restrictions: Tech, Ethics & Society minors and Computer Science, Ethics and Society majors only.
Level: Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 4028 DesignThinkingforComputerTech 3 Credits
This is the undergrad version of CCTP-5028. This course applies the “key concepts,” “design principles,” and “systems thinking” methods for understanding computer systems, software applications, data, interfaces, digital media, the Internet, and AI applications. Students will learn the methods for “deblackboxing” (opening up for understanding) the complexity of computer systems (large or small) and the applications we use every day by learning the design principles and systems thinking behind the “why” and “how” of the technologies. This course is designed especially for students without a technical background, but who want to understand the key concepts behind everything that we do in computing, and be able to move beyond being simply users and consumers of technology products. Students will learn the basic building blocks for this knowledge, beginning with computer system design principles, and progressing through the concepts for information and data, and the design principles for interfaces and interaction, the Internet and Web, and recent developments in AI. Why learn these methods? Every field and career today requires important uses of software, data, interfaces, and AI, and every field needs people who can communicate across technical and non-technical communities for explaining the technologies so that organizations can make informed decisions about applications and understand the consequences of certain kinds of designs. To become future thought-leaders in any field, students will learn what new possibilities open up for them by moving beyond being passive “consumers" or “users" of black-boxed technology products to becoming active participants who claim an ownership stake in the knowledge of the key concepts and design principles that make the technologies possible. With this knowledge, students will be able to participate in making important real-world decisions about existing technologies, critique design choices, and develop new applications in their chosen fields and careers. Outcomes: By the end of the course, students will understand and be able to explain the key design principles implemented in our main computing and digital technologies, and how to apply this knowledge to new real-world contexts. By the end of the course, students will have acquired: (1) the ability to explain the “why” and “how” of computer system design, software applications, digital media, and networked information with the unifying concepts provided by systems and design theory; (2) the ability to apply systems and design thinking for understanding and explaining the design principles of technologies that will be important in their own chosen careers or professions, which includes the conceptual tools for understanding future developments; (3) the ability to apply design principles for conceiving and developing new innovations and applications by being able to communicate and collaborate with those who will implement design ideas in the technical systems.
Level: Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Computer Science.

CCTP 4032 Int/Compar Privacy Surveill 3 Credits
This course is the undergrad version of CCTP-6032. Every day, the news brings forth accounts of fresh privacy infringements and threats emanating from government agencies, corporate entities, and individuals. These actors gather and leverage information, both self-disclosed and shared by others, through a vast array of connected devices permeating society. New technologies force us to question how a balance can be struck between privacy and security, innovation and the rights of others. In this time of information policy influx, untangling old laws, new regulatory proposals, waves of best practices, and realistic enforcement is incredibly challenging and the subject of this course. International & Comparative Privacy and Surveillance will provide students with the theoretical and policy tools and comparative skills necessary to engage in public policy issues involving privacy and surveillance in a global context. The course will first introduce major theories of information privacy and surveillance studies. The majority of the course will be comparative. We will discuss international efforts to govern privacy and surveillance issues, and then students will delve into chosen topics to more deeply understand privacy and surveillance in the 21st Century.
Level: Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Comp Sci, Ethics, Society.

CCTP 4033 Intellectual Property 3 Credits
This is the undergrad version of CCTP-6033.

Intellectual property permeates all aspects of modern life – the products we consume, the media we experience, the technology we use. Is it illegal to make a gif from a popular film or tv show and post it online? Who owns the pictures on your Instagram account? Are you really bound by those long agreements you didn't read before you clicked “I Accept”? Is downloading an interesting photo you find on Reddit illegal? Can Kylie Jenner really trademark “Rise and Shine”? Who owns the code you write? Are we a nation of creators or creative felons?

The concept of “intellectual property” reflects modern society’s embrace of the counter-intuitive idea that we can promote the diffusion of knowledge, creativity, and innovation in the science and useful arts by securing exclusivity for their work for a period of time. Yet notwithstanding the pervasive effect of IP on our information-driven society, it is frequently misunderstood. This course will explore the means and ends of the modern IP system, analyzing how IP rights function, and how they influence new technology and contemporary culture. We will explore the major species of IP: copyright, trademark, and patent, with emphasis on the mutual challenges that copyright and digital technology pose to each other. Specific subjects explored will include: internet file-sharing and streaming, online copyright infringement, and digital rights management (DRM); the significance of copyright “fair use” in a networked age; software and business method patents; disputes over internet domain names, and others. This course aims to familiarize students from all disciplines including legal, with the nature of the modern IP system and acquaint them with a variety of IP issues that may confront communications, media, technology, and policy professionals.
Level: Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a minor in Tech, Ethics Society.

Enrollment limited to students in the AB-CSES program.

CCTP 4038 HistoryPhilosophyofComputing 3 Credits
This is the undergrad version of CCTP-5038. Have you wondered about the deeper history of ideas that enabled us to get where we are today in our computing, data, and digital media systems? What are key concepts that have made all our contemporary systems possible -- from the many kinds of computing systems (small, large, and massively networked) to all kinds of software, digital media, and recent AI systems? This course presents the history of computing from the perspective of the key concepts and design principles that have made computing possible, and not as a story of machines, products, or "innovations." You will discover the very essential human ideas and capabilities that motivated the beginnings of computing since the 1600s, and that have continued in various technical implementations down to us today. The key concepts are accessible to everyone, but have accidentally become "black boxed" (closed-off from understanding) by the industries for computing devices and data services that we receive as "products" since the 1960s. We will "de-blackbox" (open up for understanding) the key concepts in computing through an interdisciplinary approach, and build out a view of computing that draws from overlapping histories in philosophy, logic, mathematics, science, communications, social contexts, and histories of supporting technologies. With the conceptual framework and methods in this course, students will learn a truer and more complete understanding of the core concepts in computing technologies from their deeper histories of development, and be able to apply this knowledge to their own further research, learning, and career development. Conceptual Framework and Methods Used in the Course: (1) Intellectual history (history of ideas) from the primary sources and their social contexts. (2) Systems and Design Thinking. The main methods that have guided the implementations of ideas in physical systems. (3) Semiotics and the philosophy of symbol systems and operations (theory and practice of signs, symbols, diagrams, writing, numbers and notation systems for mathematics, logic, and code). (3) Archival methods. How to access and interpret earlier, original, primary sources (documents, artefacts, devices, technical documentation) from online data sources (archives, libraries, museums). Students will work on interdisciplinary research projects for doing their own "deep dive" into the history of concepts and contexts that have led to where we are today. Outcomes: By the end of the course, students will be able to apply this interdisciplinary knowledge of the history of computing to many fields and careers, including design, applications in digital media, and becoming capable communicators of the key concepts to others who don't come from a technical background. This knowledge is not only important for understanding the foundations of computing systems today, but also for conceiving what can be possible in new future designs and applications by extending the concepts further. In addition, learning archival methods for access to history in original primary sources is an important skill in many disciplines, fields, and careers. Students with this competency will always be in demand for being able to do original research, interpret relevant sources, and apply historical knowledge gained from direct access to primary sources (original documents, designs, artefacts, earlier technologies).
Level: Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 4040 CompetitionRegulation in Tech 3 Credits
This is the undergrad version of CCTP-6040. This course equips students to identify and articulate the impacts of large tech firms and assess the best policy tool for regulation. The first section introduces American antitrust laws and examines the evolution of the application of these laws. The next section reviews the 116th United States Congress's investigation of four major tech firms: Facebook, Google, Apple, and Amazon. The course ends with considering a series of issue areas as they intersect with antitrust to inform our understanding of the modern antitrust discourse. The issue areas will include both traditional and "nontraditional" topics of tech policy. Throughout this course, we will practice communicating complicated antitrust policies for non-expert audiences.
Level: Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 4041 AI Policy 3 Credits
This is the undergrad version of CCTP-6041. New artificial intelligence systems that mimic and surpass human cognitive activity pose novel and profound ethical challenges. The purpose of this course is to give students an understanding of these current challenges and to provide them with the tools they will need to navigate the future controversies as the AI technologies and applications evolve. The course starts with an overview of artificial intelligence and its latest manifestations - generative AI and chatbots like ChatGPT. After a review of actual and proposed legal systems aimed at addressing the ethical and policy challenges of AI, the course then focuses on current active policy controversies including fairness, accountability and transparency, copyright and competition and national security and open-source models. The second section of the course focuses more narrowly on policy issues as they arise in AI use cases, including predictive scoring systems for credit granting and criminal justice, facial recognition, health care, autonomous vehicles and autonomous weapons. The final section deals with more speculative future questions, including how humans can find meaning in life when robots can do all the work and outperform humans in all fields; whether AI systems can achieve consciousness, independent agency and moral status; whether these systems could become superintelligent and create an existential risk to humanity; whether humans should merge with AI systems to overcome their biological limitations to become transhuman. The course will involve a constant interplay of theoretical reflection and practical problem-solving.
Level: Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 4043 Data Storytelling 3 Credits
This course is the undergrad version of CCTP-5043. Data visualization helps us translate qualitative and quantitative information — like interview responses or budget data — into compelling narratives. Through practical exercises and real-world case studies, this course introduces students to a variety of free and accessible data visualization tools that require no coding or special software, like Data Studio, Flourish, Infogram, and Data Basic. We complement this with theoretical and practical techniques for effective visual storytelling, such as typography and color theory fundamentals. We also critically assess the field of data visualization, grappling with questions of diversity and accessibility, the ramifications of AI, and data viz career opportunities. Students will leave with a robust and practical toolkit to use data visualization as a broad-purpose storytelling method that they can immediately apply at school, at work, and in their everyday lives.
Level: Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Comp Sci, Ethics, Society.

CCTP 4050 IntroAI:DesignPrinciplesAppl 3 Credits
This is the undergrad version of CCTP-5050.

This course introduces Machine Learning (ML) and Artificial Intelligence (AI) by opening up the design principles and key concepts that make the technologies possible and enable all the applications we use. This course is especially designed for students from non-technical backgrounds. Students will learn methods for “deblackboxing” the complexity of ML/AI systems by breaking down the larger systems of computing and data into the subsystems that are combined to create the processes that happen “blackboxed” between our inputs and outputs. Students will learn the main building blocks of all contemporary ML/AI systems: data encoding (how text and images become computable data), pattern recognition, and the computational methods (based on statistics and probabilities) for analyzing large data sets and generating responses as outputs from our prompt inputs. Students will learn the “why” and “how” in the designs for “generative AI” (Gen AI) systems (like ChatGPT, DALL-E, Claude, and Stability), and how we can use these applications for research and creativity. We will do many “hands on” experiments with the AI/ML systems, and students will develop their own research projects for understanding and applying the systems. We will also study the important ethical issues for ML/AI, beginning from an important foundation: ethics must always start with the truth about the technologies themselves.

Outcomes: By the end of the course, students will have gained the core knowledge of the design principles of AI/ML systems, and will be prepared to use the applications in their own fields and careers in informed and critically aware ways. Students will also be prepared to participate in developing new applications in AI/ML, and be able to critique applications for their ethical and political consequences. In addition to attaining conceptual and applied knowledge for AI/ML systems, students will also achieve the competency for being explainers and communicators of truthful explanations of ML/AI technologies, a competency now greatly needed in every field and profession.
Level: Undergraduate
Grading: Main Campus (UGrad, Grad)
Equivalent to CCTP 4057

CCTP 4058 Global Cyber Policy 3 Credits
This is the undergrad version of CCTP-6058.

Control of digital infrastructure has become a proxy for political power, mediating so much of importance in society from national security and the global economy to individual human rights and the very nature of truth. Public policy at these cyber control points is technically complex and carried out by a combination of governments, technical design communities, global coordinating institutions, and the rising power of private actors such as network operators and social media companies. Global Cyber Policy introduces students to the major digital flashpoints of the contemporary era. Many of these debates embed inherent ethical conflicts: speech rights versus content moderation; individual privacy versus government surveillance; human security versus rapid innovation; national sovereignty versus cross-border technology; and strong encryption of critical infrastructure versus weaker security for law enforcement access and intelligence. Students will gain an evidence-based understanding of the debates, technologies, and stakes of the global cyber policy flashpoints constructing our modern society.

Learning Objectives

1. Technical Understanding. Understand the technical systems of infrastructure underlying cyber policy and Internet governance, including the Domain Name System, public key cryptography, VPNs, Internet protocols, cloud computing, network interconnection and access, blockchain, and emerging technologies.

2. Political and Cultural Contextualization. Analyze how cultural contexts and geopolitical struggles reciprocally shape systems of Internet governance and broader cyber policy discourses.

3. Policy Analysis of Cyber Flashpoints. Become well-versed in contemporary cyber policy debates, identifying the issues at stake, explaining alternatives, and articulating stakeholder positions.

4. Evidence-based, Ethical Stance on Contemporary Problems. Students will develop their own evidence-based, ethical positions on difficult cyber policy questions.
Level: Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 4071 Cybersecurity Society 3 Credits
This is the undergrad version of CCTP-6071. Cybersecurity is a great human rights issue of our time, necessary for everything from privacy and personal safety to national security and global economy stability. What happens online no longer stays online. Ransomware attacks on hospitals prevent people from receiving health care. Disruptions of digital communication systems are now disruptions of our food supply and energy systems. Solutions are available to implement, but marked by conflicting values and political challenges, all in the context of complex, constantly changing technologies. Cybersecurity attacks are as human as they are technical. Social engineering techniques exploit human emotions to trick people, sometimes with acute political, personal, or financial consequences. Ethical questions abound, such as the conditions under which security researchers infiltrate systems, the choices whistleblowers make about disclosing conditions of government surveillance, government policies about when to disclose a discovered vulnerability to a technology company to protect critical infrastructure versus withholding the knowledge to enable cyber weapons, and the legality and ethics of companies hacking back as part of defending systems. Students in the Cybersecurity and Society course will gain: 1. Sociotechnical Thinking - Explore cybersecurity entanglements with society through real life case studies and theoretical frameworks from Science & Technology Studies (STS); 2. Topical Cybersecurity Knowledge - Learn about the foundational principles, frameworks, technical infrastructures, and institutions at the heart of cybersecurity solutions; 3. Ethical Stances - Analyze the complex ethical dilemmas at the core of most cybersecurity governance debates, such as battles over encryption that mediate between cyber offense and law enforcement versus cyber defense and critical infrastructure protection; and 4. A Technological Mindset for analyzing complex and emerging technologies - such as quantum computing, blockchain, artificial intelligence, cyber-brain interfaces, and the Internet of Things, that are creating new cybersecurity and society entanglements. Restrictions: Tech, Ethics & Society minors and Computer Science, Ethics and Society majors only.
Level: Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 4121 Disinformation Propaganda 3 Credits
This is the undergrad version of CCTP-6021. This course will examine a global phenomenon that has taken on massive proportions in the world: the spread of disinformation. We will explore types of false information, from misinformation to disinformation to propaganda. We will survey the historical origins of these tactics including conspiracy theories, racist propaganda, and how they have been used by governments, interest groups and businesses to manipulate public opinion. Through a hands-on exploration of deep fakes and the alteration of text and image, this course will give students the practical skills they need to verify information and fact check. We will investigate the role of disinformation in international conflicts from Syria to Ukraine and examine the role of AI in amplifying disinformation and propaganda. Students will leave the course conversant in the basics of psychological safety, including stress management and PTSD especially as it relates to constant exposure to propaganda and disinformation.
Level: Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5005 Intro CCT: Inter Prob Method 0 or 3 Credits
This course introduces students to interdisciplinary graduate studies in the Communication, Culture and Technology Program. The goals for the course include: development of each student's research agenda and expertise on the topics that motivate their professional, intellectual and personal development; fostering collaborative work in a scholarly community that investigates technologies as dynamic parts of human social life; encouraging a critical and ethical use and analysis of artificial intelligence systems; and equipping each student with a problem-solving framework in order to identify important social, cultural and technological challenges and consider solutions and outcomes to those challenges. Students will explore interdisciplinarity in communication, cultural, media, and technology studies: by identifying the communities in which they want to matter; by determining what foundational knowledges, assumptions and viewpoints exist in such communities; and by considering how best to contribute knowledge to that community. A central question of this course is: How do you (or anyone else) know what you know, and how can you trust what you know? The course approaches this question by providing students the opportunity to find an intellectual home and an identity within that home (a process in which students may change their "home" frequently), and by exploring what specific experts and communities know and talk about. Students will seek to explain how sociotechnical systems work, how they are shaped by social decisions and interactions, and how in turn these systems affect, guide and disrupt the lives of their users. Besides focusing on the dialectic of sociotechnical systems, the primary goal of this course is to help each student figure out who they are in CCT and where they want to go as they become valuable contributors, experts, and creators in their chosen communities. LEARNING GOALS Thematic Foci: 1. The student's understanding of themselves and their research interests. 2. Use, discern and analyze technological systems (such as AI) in their role in content and knowledge creation and as systems of power. Methodology: 1. Understanding of a range of theoretical frameworks and how they are applied to different research goals. 2 Understanding of the meaning and value of interdisciplinarity. 3. Practical methods for creative lateral thinking. 4. Qualitative and quantitative research Methods. Interdisciplinary Problem-Solving: The ability to select and apply theoretical frameworks, research methods, and creative thinking to your own research topics. Theory to Practice: 1. How to present novel arguments and new ideas through concise writing and arguments well supported by research and citations. 2. Use communication and technology (including AI) and design media to express and communicate ideas to a variety of audiences and understand how digital tools arrange and manipulate information.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

CCTP 5006 FUNdamentals of Technology 0 or 3 Credits
CCT strives to investigate technology as a dynamic part of social life. We study how technology, communication, and culture shape human interaction. But to get the complete picture, we must also investigate technology itself. In 506 we "open the black box" of technology. By the end of the class you will be able to explore technical topics as a socio-technical system. You will explain how they work at a technical level, how they shape and have been shaped by social decisions, and how they affect the lives of their users.Lectures during the first half of the course will demonstrate socio-technical analysis by unpacking the workings of information and communication technologies (ICTs), including computers and the internet. We will examine the architectures upon which these technologies are built, the algorithms and processes through which they operate, and the broader sociotechnical systems in which they are embedded. You will gain an understanding of how and why ICT technologies work the way they do, and how they interact with the world around them, including human beings.Throughout the course, group projects will apply similar methods to unpack a technology. Groups will open the black box of their focused technology and explain how the technology operates within a socio-technical system. The final project will present group research exploring the history, design, and use of that particular technology. Project findings will be presented through a variety of media (including written content, oral presentation, brief videos, and a technical poster).Course Objectives: Obtain a familiarity with ICTs and their inner-workings so that you can: --- communicate with technical people --- be critical about how technologies work and how they are used --- understand and predict interactions in a socio-technical system --- go on to more advanced technical workUse communication and design media to: --- express and communicate technical ideas to a public audience --- understand how digital tools arrange and manipulate information --- attain basic familiarity with practices of media production and design
Level: Graduate, Undergraduate
Prerequisites: (CCTP 505 or CCTP 5005)
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 5010 Cybersecurity Society 3 Credits
Cybersecurity is a great human rights issue of our time, necessary for everything from privacy and personal safety to national security and global economy stability. What happens online no longer stays online. Ransomware attacks on hospitals prevent people from receiving health care. Disruptions of digital communication systems are now disruptions of our food supply and energy systems. Solutions are available to implement, but marked by conflicting values and political challenges, all in the context of complex, constantly changing technologies. Cybersecurity attacks are as human as they are technical. Social engineering techniques exploit human emotions to trick people, sometimes with acute political, personal, or financial consequences. Ethical questions abound, such as the conditions under which security researchers infiltrate systems, the choices whistleblowers make about disclosing conditions of government surveillance, government policies about when to disclose a discovered vulnerability to a technology company to protect critical infrastructure versus withholding the knowledge to enable cyber weapons, and the legality and ethics of companies hacking back as part of defending systems. Students in the Cybersecurity and Society course will gain: 1. Sociotechnical Thinking - Explore cybersecurity entanglements with society through real life case studies and theoretical frameworks from Science & Technology Studies (STS); 2. Topical Cybersecurity Knowledge - Learn about the foundational principles, frameworks, technical infrastructures, and institutions at the heart of cybersecurity solutions; 3. Ethical Stances - Analyze the complex ethical dilemmas at the core of most cybersecurity governance debates, such as battles over encryption that mediate between cyber offense and law enforcement versus cyber defense and critical infrastructure protection; and 4. A Technological Mindset for analyzing complex and emerging technologies - such as quantum computing, blockchain, artificial intelligence, cyber-brain interfaces, and the Internet of Things, that are creating new cybersecurity and society entanglements. Undergraduate restrictions: Tech, Ethics & Society minors and Computer Science, Ethics and Society majors only.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5011 Emp Rsrch: CivicEd Digital Age 3 Credits
*Fulfills Core Methods Requirement This course will provide students with the opportunity to learn the core elements of the empirical research process while gaining hands-on experience working on an ongoing civic education research project. The learning goals are: 1) to provide a strong foundation in empirical research methods; 2) to have students engage in hands-on data collection and analysis using survey research, in-depth interview, and ethnographic research techniques; and 3) to allow students to design and carry out a research project in conjunction with a study of civic education in the digital age. The class will begin with an overview of the guiding principles of social scientific research to provide a foundation for a detailed exploration of the steps in the empirical research process. These steps include selecting a research topic, conducting a literature review, developing a theoretical framework, defining concepts, formulating and testing hypotheses, data collection and analysis, and reporting findings. Issues surrounding data collection and analysis, such as the types of data, levels of measurements, sampling, and the benefits and challenges of primary and secondary data analysis, will be examined. A variety of research methodologies will be discussed, focusing heavily on survey research, in-depth interviews, and ethnographic research. Analysis of the data produced by surveys, interviews, and ethnographies will be covered. An introduction to statistical data analysis will be provided—no prior background in statistics is required. Finally, the class will include a session on grantsmanship focusing on how to prepare and submit research grants. The practicum will give students the opportunity to take part in a real-world study in the field of civic education, although the research practices conveyed in this course have wide-ranging applicability. Dr. Owen has been conducting research on the influence of civic education on students' acquisition of political knowledge, dispositions, such as a sense of civic duty and commitment to community, and skills, including political engagement and voting. The project for the class focuses on the extent to which teachers are successful in instructing students to navigate the current political environment and use digital technology responsibly and effectively for civic engagement.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5012 Archival Methd: Rights to Info 3 Credits
Course Title: Archival Methods: Rights to Information *Fulfills Core Methods Requirement. Archives are collections of information or records. The discovery and interpretation of archival material is at the heart of many forms of research from a range of academic disciplines to professionals practicing journalism, history, law, and public policy. Understanding what information can be found, where it is, and how to get your hands on it is what we cover in this course. Finding records is only half the battle, however. Once located, archival materials must be interpreted within the context of other secondary sources and used in a way that meets certain disciplinary or professional standards. This course takes full advantage of the incredible history and archives located in Washington, D.C. The course is broken down into four parts, each tackling a different aspect of archival methods. The first is requesting information from public entities (like law enforcement or public transportation agencies and libraries or schools). Students will not only learn the history and rights associated with the Freedom of Information Act (FOIA) but will, in groups, submit FOIA requests for information. We cover FOIA requests first in the hopes of actually receiving responses before the end of the semester. Second, we will get comfortable in the archives, which can be incredibly intimidating. We will discuss the realities of digital archives as we attempt to use them to understand computing and internet history. We will then visit two technology-related archives here in D.C.. Third, we will travel to three of the most important buildings in America: the Law Library of Congress (where students will get researcher/library cards), the Library of Congress, and the National Archives. Finally, after a visit to the Lemelson Center to look at inventor and technology business collections, we will discuss how to track down information about people, businesses, and organizations like arrest, tax, voting, and ownership records. Each visit and class will include readings of research products from the collections to better understand how resources can be successfully utilized and assignments to develop skills, comfort, and confidence. A final short research proposal (3-5 pages) on a topic of the student's choice will be due at the end of the course, that includes specific, detailed sources from each of the four portions of the course. Please note that many of the class sessions in this course do not take place on campus but prompt attendance is expected. Required books: Michael Schudson, The Rise of the Right to Know (2015). Wm. David Sloan and Michael Stamm, Historical Methods in Communication, 3rd ed. (2017). Michael Sankey and Cynthia Hetherington, The Manual to Online Public Records (2016).
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5013 Data Design: A.I. the Cloud 3 Credits
This course provides a conceptual and design-oriented introduction to the key concepts for computing, digital information, and data from the first foundations of these technologies to the applications now being developed for Machine Learning (ML), Artificial Intelligence (AI), and Cloud computing. This course is especially designed for students from non-technical backgrounds, and provides methods for "deblackboxing" complex technologies through the key concepts and design principles approach. Students will learn how the technologies can be made accessible through an interdisciplinary framework, which combines Systems Thinking, Design Thinking, Semiotic Theory, and the Ethics and Policy viewpoint. By the end of the course, students will have achieved (1) a conceptual, design-oriented understanding of computing, data, AI/ML, and Cloud systems, and (2) a competency in design thinking and systems thinking that can be applied to any sociotechnical system. Since the ability to communicate conceptually clear and truthful explanations of our technologies across technical and non-technical communities is greatly needed in every field and profession, students who have learned these competencies will be able to take on thought leadership roles in any career that they want to pursue.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5014 Systemic Design UX 3 Credits
Course Title: Systemic Design & User Experience *Fulfills Core Methods Requirement The emerging interdiscipline of Systemic Design aims to integrate Systems Science and Design in both theory and practice. Systems science, which has been a developing meta-discipline for more than fifty years, represents a holistic worldview and new paradigm for scientific exploration. The combination of systems approaches and ever-increasing computational power has led to numerous breakthroughs in biological, physical, and social sciences as well as the humanities. Design as a practice is quite a bit older, dating back to ancient Greece in the West, but it is still relatively recently that Design has become an academic discipline as well as a practical one. Systems and Design both embrace core concepts such as holism, feedback, iteration, and intentional evolution; however, the two disciplines operate on very different scales. Systems tend to focus on large groups or geographic areas and long time-frames. Design, on the other hand, strives to be human-centered and values deep empathy and improvement of the immediate circumstances. How can these two be reconciled within the field of Systemic Design? This course will focus on User Experience as an area for the rich exploration of the intersections between Systems and Design Thinking. Students should expect to do substantial reading on both the origins and contemporary understandings of both fields in order to identify areas of overlap and conflict and to develop original theoretical approaches that bridge these gaps. Class meetings will be divided into hour-long discussions of readings followed by practical exercises intended to sharpen design skills and provide practical experience in User Experience design.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5015 Interaction Design 3 Credits
Course Title: Interaction Design: Electronics and Semantics Whether you are an entrepreneur looking to create a new product, an everyday consumer who wants to personalize your life with interactive artifacts, or a creative spirit who wants to express yourself through physical media, knowing how to combine physical and virtual elements in meaningful ways is the most important communication skill of the 21st century. Interaction Design: Electronics And Semantics (IDEAS) will teach you how to create and test working prototypes of electronic artifacts and to understand how these artifacts acquire meaning to their users. Through lectures on basic electronics, readings on creativity and design, and hands-on exercises in prototyping techniques, this class will give you the foundation you need to begin creating physically interactive artifacts in fields like wearable computing, toy design, new media art, robotics, and many more. After mastering tutorials and exercises in topics such as circuit design, 3D modeling and printing, mold-making, and others, students will use an iterative design process to design three custom electronics projects and fabricate the containers that give them meanings as products. After completing this course students will have intermediate level knowledge of concepts in electronics and design.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 5016 Content Analysis 3 Credits
By systematically investigating media messages for patterns in narrative and/or visual content, researchers often come to valuable insights about the construction and maintenance of reality. This course will focus on the methodological procedure of quantitative content analysis. It will include discussion of the method's theoretical underpinnings and place among other quantitative methods of research. It will also offer an opportunity to design, conduct, and analyze content analysis research. A considerable portion of the semester will be dedicated to developing group research projects - the course is designed as a hands-on course. I will provide context, feedback, and lecture materials, but a significant portion of course time will be spent designing an analytic framework, collecting content data, analyzing data, and linking findings to your research questions and hypotheses. The final output of the course is a research paper utilizing the method.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

CCTP 5017 Sentiment Analysis in SocMedia 3 Credits
Public sentiment is a crucial ballast for political, economic, and social practices. Leaders, products, and social trends have risen and fallen on the tide of public opinion. Sentiment analysis allows us to delve into the emotions, opinions and intentions of groups and individuals. The proliferation of social media platforms provides an unprecedented resource for sentiment analysis. In this course, we will explore concepts and practices of sentiment analysis. We will primarily utilize R Studio. No prior knowledge of R or R Studio is necessary. Students will learn relevant mathematical techniques in a supportive, highly verbal manner. We will collaborate on web scraping social media sites, data management, analysis, and visualization together in class. We will explore techniques, including Natural Language Processing and Machine Learning. Students will have the opportunity to both learn and practice their analysis skills on their own research interests. Students will produce a research paper on a research question of their choosing using the skills they have learned in class.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a program in Commun, Culture Technology.

CCTP 5018 Digital Law Policy 3 Credits
The rise of complex digital networks and devices pose a series of challenges to law and policy. Long standing legal and regulatory regimes are often difficult to apply to today's evolving technologies, and law often struggles to keep pace with rapid innovation. The globalization of information and communications networks create political tensions about how to govern information flows across borders. The ability of both firms and governments to collect, store, combine and analyze personal information create valuable new services as well as significant risks to privacy, civil liberties and human rights. The Digital Law and Policy course introduces ongoing and anticipated legal and policy issues for information and communication technologies (ICTs), emphasizing both legal and technological foundations. The course objectives are to give students the foundational skills to analyze legal texts (cases, regulations and statutes), think critically to apply legal principles and identify legal risks to real-life circumstances, communicate effectively about legal and political aspects of technology, engage in the national and global ICT policy debates to come, and firmly understand the underlying technologies from which these issues arise. This course will give a strong introduction to legal analysis and methodology, and will be taught using the case method, which includes case review and hypotheticals to drive the classroom discussion. Assignments will include one mock oral argument (with accompanying written materials), a mid-term exam and a final exam. The course will cover issues related to the Internet and beyond. Topics include governance of network architecture, free expression and access, intellectual property, consumer privacy and security, liability protections for intermediaries, liability for insecure systems and defective information, government surveillance, computer crime, trans-border data flows, international information policy, and regulatory considerations for digital assets. This course is designed to be useful for and accessible to anyone and a legal or technical background is not required.
Level: Graduate, Juris Doctor, Master of Laws, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Comp Sci, Ethics, Society.
Enrollment is limited to students with a concentration in Tech, Ethics Society.
Enrollment is limited to students with a minor in Tech, Ethics Society.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 5019 Survey Research Methods 3 Credits
Survey Research Methods is a methods course that teaches what surveys are best used for, how to design a questionnaire, how sampling and weighting work, how to analyze survey data, how to critique a survey and its design, and the limitations of and future considerations for survey methodology. Students will draft and critique their own survey questionnaires, learn about survey methodology, and complete an analytical project using survey data and RStudio including some data visualization. The course will include one mid- semester test on methodological details and one final data analysis project.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 5020 Social Network Analysis 3 Credits
Social Network Analysis (SNA) allows patterns in relationships to be graphed and explored. Whether tracking the flow of information or influence, SNA provides a valuable tool for uncovering the important implications of relationships and social structures. This class balances theory and practice, concepts and computations. The goal of this course is to enable students to conduct SNA research of their own. Students will learn how SNA is currently being used; applications that include the analysis of politics, social media, and disease transmission, among others. Hypothesis testing is a major topic for this course. Students will gain matrix manipulation skills and data management skills. Students will also learn how to graph relationships given a set of data and the mathematical techniques that unearth key pieces of information in these graphs. Data collection methods and ethics will be explored. Strategies for efficient coding and data entry are key aspects of the course that aim to build practical skills. Students will learn relevant mathematical techniques in a supportive, highly verbal manner. Students will also learn computer-based SNA techniques using R and R Studio. These skills will assist students in completing research projects throughout the course of the semester.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 5021 Computing Meaning of Code 3 Credits
This course introduces the key concepts for understanding everything we call “code” -- from language and written symbols to programming languages, digital data, and AI. To open up the meaning of code and computing, students will learn how to apply interdisciplinary knowledge and methods from computer science, philosophy, mathematics, semiotics and linguistics, and design and systems thinking. We will use these “deblackboxing” methods to uncover the important truth about computing: all computing technologies are based on -- and are designed to serve -- our core human capabilities for symbolic thought and communication, thinking with symbols and representations (which includes numbers and logic), and for abstraction, pattern recognition, and modeling technical systems that serve these human capabilities.

This course is designed especially for students from non-technical backgrounds, but if you have done some computer coding already, you will understand more clearly how and why programming languages and digital media are designed the way they are, and the reasons behind their foundational principles. Students will learn how and why we can use “code” in one form (in the symbols of the “digital language” of computers) for representing, processing, interpreting, and transmitting all forms of the “primary code” of human thought and expression (in words, images, numbers, graphics, sounds, and video). Course units will include programming tutorials and hands-on exercises so that students can understand how the main concepts are applied in the design of programming languages, software applications, and in interfaces and interactions.

Outcomes: By the end of the course, students will have acquired both a deeper conceptual knowledge of the meaning of code in computing technologies, and opened up a pathway for acquiring new skills and competencies. The interdisciplinary knowledge provided by this course will prepare students to advance in further studies of computer systems, digital media, and their cultural and social significance, and, for students wanting to develop skills in coding and digital media applications, students will be well-prepared to progress quickly in learning new coding skills because they already understand the design principles for code in any programming language, and what code is, means, and does by design. Students will also have achieved the competency to be good explainers and communicators of the key concepts in computer systems, programming applications, and data design, a competency in high demand for working in organizations in any field or sector, which always includes both technical and non-technical communities of practice.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

CCTP 5022 Critical Theory Cont Media 3 Credits
This course serves as an introduction to some of the central questions of critical theory as they help us to understand popular and mass cultures. The course follows the intellectual genealogy of Kantian and Hegelian philosophy as these critical projects have influenced European thinkers such as Karl Marx, Sigmund Freud, Jacques Lacan, Simone de Beauvoir, Guy Debord, Michel Foucault and Slavoj Zizek. In turn, we read the works of these writers in order to explore the contemporary media-scape that we inhabit. While many of the concerns of critical theory can be understood in relation to other forms of cultural production, such as literature, high art, anthropology, history, and sociology, for the purposes of this seminar we will be examining the readings with an eye to the impact of such phenomena as cinema, television, photography, the internet, recorded sound, etc.

Central to the course’s project is to understand the effects of the philosophical work of European philosophers and writer as their analyses and critiques of human thought, politics, language and social interactions have shaped more recent work in such settings as the Frankfurt school, psychoanalysis, feminism, gender studies, critical race studies, semiotics, media theory, and cultural studies. Critical Theory assembles a range of intellectual practices, and all of them in some manner stem from two related enterprises: 1) the liberation of humans from the conditions of their existence that they may not realize function as limits upon their thoughts and actions and 2) the recognition that human symbolic systems—speech, writing, visual culture, music, etc.—function ideologically to represent the world we inhabit in ways that enrich and distort our understanding of the world.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a program in E or Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 5023 Media Amer Elections 3 Credits
The 2026 midterm elections are shaping up to be a landmark event in American politics. This semester, we will have the opportunity to observe, unpack, and research these unprecedented elections and their immediate aftermath in real time. As is the case with midterms generally, these elections will be a referendum on the Trump presidency, with its myriad controversial policies and practices. At the same time, rampant redistricting, attempts at voter suppression, and a record number of open seats add elements of drama and uncertainty. All of this is taking place amidst the backdrop of wars in Iran and Ukraine, economic volatility, major changes to government departments and agencies, controversial Supreme Court rulings, high-profile government building projects, protests and the list goes on. We will have the opportunity to design and field a national survey of the American electorate to explore themes determined by the class. It is a chance to think outside the box and explore topics that may not be addressed by most election surveys. Past themes have included conspiracy theories, celebrities' role in campaigns, and novel forms of online engagement. Media have been an essential element of American elections since the founding. The media's role in elections has been expanding since the television era and has become more pervasive and integral to campaigns with the evolution of digital media. With each election cycle, previously established trends evolve as novel communications strategies are introduced. Horserace coverage, controversy, and scandal have become well-established characteristics of electoral communication that persist, even as the media environment has shifted. Social media use by candidates, the press, and the public has become a campaign staple since the 2008 presidential contest. The campaign media agenda often is hijacked by stories based on incendiary tweets, rumors, quarrels, and campaign intrigue. The amount of misinformation—the number of false stories based on exaggerated facts or outright fabrications—has been growing exponentially with each passing campaign. The 2024 presidential election witnessed the emergence of AI as a factor in the campaign. AI's role in the midterms will likely be more prominent and sophisticated. These media trends coincide with, and may contribute to, developments in the political orientations of the American electorate. Not too long ago, the public was criticized for its high level of political disinterest and apathy. In recent campaigns, the amount of political engagement, especially on social media, reached new heights during the 2016 and 2020 presidential contest. While there was a slight drop in engagement during the 2024 presidential election, voters seem to sense that the results of the 2026 midterms will be consequential. The level of political polarization that has people divided along extreme partisan, ideological, and social lines has increased markedly. These trends have led political observers to lament that American society has entered a post-truth era where objective facts are subordinate to emotional appeals and personal beliefs in shaping public opinion. This course will explore trends in American election media with a focus on the 2026 midterms. It will explore the factors underpinning the evolution of political media and contemplate future developments. Several core questions form the foundation for the course: What role do media play in American election campaigns? How have digital media and AI changed the dynamics of elections and impacted electoral institutions, such as political parties? How have media influenced the political orientations of the American electorate? What role should election media play? In what ways do recent developments in American campaign media help or hinder the democratic process? Finally, is there a better way to conduct elections? Election campaigns are compelling laboratories for observing larger developments in media and politics. Innovations in campaign media have significant implications for the contesting of elections, and they also can signal changes to the larger political-media ecosystem. New media have added an important and evolving dimension to election campaigns. The 2008 presidential election was a watershed in campaign media, as novel election communication techniques, such as the use of social

CCTP 5025 Statistical Methodology 3 Credits
This course is designed to provide students with a solid background in introductory and intermediate level statistical methods. The class will cover the core components of empirical research, basic univariate statistics, bivariate analysis, and OLS regression techniques. It will emphasize the process of conducting empirical research employing a social scientific approach. Concepts, such as levels of measurement, probability theory, and hypothesis testing, will be covered.

Statistical methods can be used in conjunction with data from a wide range of sources, including political, communications, economic data, census data, and content data to name but a few. Major data repositories can be accessed for use in research, including the Interuniversity Consortium for Political and Social Research (ICPSR), the Roper Center, and the Pew Research Center. Students also will have the opportunity to collect their own data if they so choose.

The class takes a practical, applied approach to using statistics for academic research, policy reports, data journalism, and other applications. We will use a hands-on method for learning statistical techniques. Students will work with R, a widely used programming language used for statistical analysis. R is an open source software that is freely available for download from the Comprehensive R Archive Network (CRAN). Weekly exercises will be assigned to facilitate learning of the statistics. The final project for the course will be a data analysis paper on a topic of your choice. No prior background in statistical methods is required prior to taking this course.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5026 Adv Stats Analysis 3 Credits
This course is designed as a continuation of CCTP-5025 Statistical Methodology. It will focus on multivariate techniques of data analysis, including advanced topics in OLS regression analysis, methods for estimating statistical models with dichotomous dependent variables, such as logistic regression and discriminant analysis, and measurement models for incorporating multiple indicators into analysis, such as factor analysis. These techniques are commonly employed by social scientists. The course is designed not only to provide students with a hands-on approach to data analysis, but also to teach them to be informed consumers of statistical techniques. Students will be required to complete a data analysis project of their own design which may be conducted in conjunction with their thesis or other research project.
Level: Graduate, Undergraduate
Prerequisites: (CCTP 770 or CCTP 5025) or CCTP 771
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 5027 Qual Methods in Comm Research 3 Credits
Whether you plan to pursue academia or industry, an understanding of how to gather qualitative data in a systematic way is invaluable to decision making. Through this broad-based qualitative methods course, students will develop a working knowledge of text-based qualitative methods and different types of fieldwork used in communication research. Text-based methods include grounded theory, textual analysis, content analysis, and rhetorical analysis. Fieldwork includes ethnography, observation, interview, and focus groups. Opportunities for practice using the various methods will be provided through exercises involving the application of methods to the collection and analysis of data. Students will demonstrate competence in each method through mini papers as well as a chosen method(s) through an original research project and paper.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5028 DesignThinkingforComputerTech 3 Credits
This course applies the “key concepts,” “design principles,” and “systems thinking” methods for understanding computer systems, software applications, data, interfaces, digital media, the Internet, and AI applications. Students will learn the methods for “deblackboxing” (opening up for understanding) the complexity of computer systems (large or small) and the applications we use every day by learning the design principles and systems thinking behind the “why” and “how” of the technologies. This course is designed especially for students without a technical background, but who want to understand the key concepts behind everything that we do in computing, and be able to move beyond being simply users and consumers of technology products. Students will learn the basic building blocks for this knowledge, beginning with computer system design principles, and progressing through the concepts for information and data, and the design principles for interfaces and interaction, the Internet and Web, and recent developments in AI. Why learn these methods? Every field and career today requires important uses of software, data, interfaces, and AI, and every field needs people who can communicate across technical and non-technical communities for explaining the technologies so that organizations can make informed decisions about applications and understand the consequences of certain kinds of designs. To become future thought-leaders in any field, students will learn what new possibilities open up for them by moving beyond being passive “consumers'' or “users'' of black-boxed technology products to becoming active participants who claim an ownership stake in the knowledge of the key concepts and design principles that make the technologies possible. With this knowledge, students will be able to participate in making important real-world decisions about existing technologies, critique design choices, and develop new applications in their chosen fields and careers. Outcomes: By the end of the course, students will understand and be able to explain the key design principles implemented in our main computing and digital technologies, and how to apply this knowledge to new real-world contexts. By the end of the course, students will have acquired: (1) the ability to explain the “why” and “how” of computer system design, software applications, digital media, and networked information with the unifying concepts provided by systems and design theory; (2) the ability to apply systems and design thinking for understanding and explaining the design principles of technologies that will be important in their own chosen careers or professions, which includes the conceptual tools for understanding future developments; (3) the ability to apply design principles for conceiving and developing new innovations and applications by being able to communicate and collaborate with those who will implement design ideas in the technical systems.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 5029 Digital Video Storytelling 3 Credits
Thousands of organizations now use video to tell their stories to their clients and the public. This course will equip students with the visual, technical, and interviewing skills necessary to plan, produce, and edit professional quality video stories, designed for multi-purpose distribution in traditional, social, and digital media. This class focuses on using audio and video effectively to tell feature stories that can be distributed for informational or marketing purposes. It is ideal for students and career-seekers with a passion for communications, advocacy, journalism, or marketing. You will practice the fundamentals of video storytelling; gathering clear, compelling sound, shooting expressive and captivating video, and learning creative digital editing. You can use a digital camera or a phone with a video camera. You will post your final video for online distribution across multiple platforms of your choice. This class will be a combination of lectures, class discussion, location video shooting, and in-class exercises. There will be both indoor and outdoor assignments.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5030 Prof Podcasting for Business 3 Credits
Many industries and small businesses are embracing podcasting as a way to reinforce customer or supporter loyalty, and gain new listeners and clients. This course will train and equip students with the skills and tools they need to conceive, plan, and launch a high-quality ongoing and sustainable podcast production, – defining the concept, format, goals and identity of the podcast, including music/theme choices. Technical skills: voicing and microphone techniques, recording devices, digital editing, marketing and distribution platforms, talent development, and audience data analysis.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5031 Documentary Film Video 3 Credits
Documentary moving images are often assumed to tell truths about the world we inhabit, but what those truths might be and how we might ascertain them leads us to important questions: do documentaries represent the world as “it really is”? Whose version of the world do documentary images and sounds claim to represent? How do non-fiction moving images use technologies—of the camera, the projector, the video monitor, the personal computer, the smart phone—to record and represent events? Cannot those same technologies be used to shape images for the purposes of the film-maker or videographer? In this regard, might not every ostensibly ‘non-fiction’ image be capable of an instrumental use—be it aesthetic, political, social—and how in this sense does the documentary become the most strategic—and most powerful—form of mediation? This course examines the documentary image in its historical, theoretical, political and aesthetic dimensions in order to address these questions. It begins by examining many of the canonical texts of the documentary and the historical effects of these films and then moves to consider the recent emergence of new media forms that respond to the claims of the documentary, media such as mockumentaries and reality television programming.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Equivalent to CCTP 6074

CCTP 5032 Remix Practices 3 Credits
This lab-based seminar explores the “remix” as both an analytic framework and a method of critical practice. Remixes can be found in music, text, images, education, games, art, technology, fashion, and wherever something intended for a particular meaning or use is redeployed and reinterpreted within a new set of constraints. Digital technologies have catapulted remixes to a new level of visibility. But the remixing of culture precedes these technologies. This course begins with a theoretical opening discussion in which remix theory is unpacked, unmixed, and re-assessed as a semiotic process accelerated by new media technologies. We will also touch upon a variety of cultural issues raised, inspired, and/or challenged by the remix. Throughout the course, we will apply remix practices that uncover novel connections and new meanings across sources. Hands-on experiments explore the remix across a spectrum of media forms: text, sound, image, video, and simple interactive animations. By the end of the course, you will have practice applying the remix as both an analytic paradigm and a technical method. You will remix your own work and the work of others throughout the course, and your final project will be a research remix. This course emphasizes the development, use, and critical evaluation of digital communications media. It includes instruction in the design and development of digital communications and the study of human interaction with digital media, as well as emerging trends and issues in the computational and digital landscape.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 5033 Critical Studies in Journalism 3 Credits
The news media across the globe are currently being simultaneously disparaged as liars and hailed as truth-tellers. Within such a contentious sociopolitical environment it is paramount to understand journalism's role in maintaining a free, informed and democratic society. This course provides an overview of journalism’s history, function and scope while considering the varying sociocultural and political contexts (both democratic and non-democratic) in which journalism is operating around the world. Topics covered in the course include discussions of globalization and the rise of the so-called global public sphere and global journalism. More specifically, students will learn how societal and technological changes have influenced the practice, values and ethics of journalism across time and space. A core objective of this course is to develop a holistic understanding of the workings and limitations of journalism in society.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 5034 Media Production Lab 3 Credits
In this short intensive course, taught over one-and-a-half weeks, participants learn the foundational skills and technologies of media production. Topics include storyboarding, audio and video recording, frame composition, media editing, and digital content. The course targets students with no production experience. No previous technical knowledge is required. Working in small groups, participants will shoot, edit, and produce a video short. The projects will be developed alongside class discussions of media aesthetics, digital workflow, and production design.This blend of projects and lectures provide participants with a basic understanding of media production practices while encouraging the development of hands-on technical skills. Throughout the course and in final reflections, participants are encouraged to consider how these skills can be applied as educational, research, and communication strategies.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 5035 Multimedia News Production 3 Credits
This class bases journalistic practice on a deeper understanding of communication theories that are critical for becoming effective storytellers. Journalism grounded in a better theoretical understanding can be more self-aware of possible biases and limitations. This class is conceptually divided into two parts: First, students will learn various multimedia production skills. Second, students will acquire an overview of critical communication theories and learn how these apply to and inform journalistic content production and consumption. Specifically, students will learn to produce journalistic video, audio and data visualization content guided by theories that are related to news production such as rhetoric; theories of media effects including framing, hostile media effect and more; and theories of and about audiences such as information processing and active audience participation.

In the process of creating journalistic content, students will have to research and present how their chosen topic is currently understood by the various stakeholders of the issue. They then will learn how to gather and interpret data and evidence in order to not only report the facts but also to discuss consequences of their stories for the community they are reporting on and possibly also the field of journalism. At the end of this class, students will also be able to discern how their and other news stories may be viewed and understood through the lenses of the various communication theories.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 5036 Critical Discourse Analysis 3 Credits
Critical Discourse Analysis is a well-developed interdisciplinary method for analysis specifically addressing power dynamics in social structures. The inclusive nature of discourse analysis gets at the fundamental question of power in human cognition, public sphere formation, communication, and technology development and design. This course will explore foundational analytical frameworks and apply those theories to intensive close readings of artifacts. Ultimately, the purpose of the course is for students to gain a means of analysis that is both applicable to their professional life and their critical approach to value systems and their own aesthetic frameworks and how those manifest in communications and technology. We will learn several types of critical discourse analysis, providing students an opportunity to iteratively apply those that they find most helpful. The goal of this course is for students to foster confidence to critically examine a text through systematic contextualization and evaluation. Through readings in sociology, linguistics, semiotics, and discourse studies students will establish a theoretical frame to evaluate texts using Critical Discourse methods. Through discussion, in-class exercises, weekly forum posts, short-form papers, and a long-form analysis, students will hone their knowledge and application of this method of analysis. Students will be able to evaluate for themselves the utility of CDA as an analytical method.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 5037 Diagrams Dialogues 3 Credits
This class examines diagrams and visual thinking in comparative and historical perspective. Students will analyze diagrams and visual models as a unique communicative form that combines text, image, and elements of graphic design. They will also produce and design diagrams to share their own research. Note: This is not a course in applied data or information visualization (although elements of these practices may be considered).

This course emphasizes the development, use, and critical evaluation of digital communications media. It includes instruction in the design and development of digital communications and the study of human interaction with digital media, as well as emerging trends and issues in the computational and digital landscape.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 5038 HistoryPhilosophyofComputing 3 Credits
Have you wondered about the deeper history of ideas that enabled us to get where we are today in our computing, data, and digital media systems? What are key concepts that have made all our contemporary systems possible -- from the many kinds of computing systems (small, large, and massively networked) to all kinds of software, digital media, and recent AI systems? This course presents the history of computing from the perspective of the key concepts and design principles that have made computing possible, and not as a story of machines, products, or “innovations.” You will discover the very essential human ideas and capabilities that motivated the beginnings of computing since the 1600s, and that have continued in various technical implementations down to us today. The key concepts are accessible to everyone, but have accidentally become “black boxed” (closed-off from understanding) by the industries for computing devices and data services that we receive as “products” since the 1960s. We will “de-blackbox” (open up for understanding) the key concepts in computing through an interdisciplinary approach, and build out a view of computing that draws from overlapping histories in philosophy, logic, mathematics, science, communications, social contexts, and histories of supporting technologies. With the conceptual framework and methods in this course, students will learn a truer and more complete understanding of the core concepts in computing technologies from their deeper histories of development, and be able to apply this knowledge to their own further research, learning, and career development. Conceptual Framework and Methods Used in the Course: (1) Intellectual history (history of ideas) from the primary sources and their social contexts. (2) Systems and Design Thinking. The main methods that have guided the implementations of ideas in physical systems. (3) Semiotics and the philosophy of symbol systems and operations (theory and practice of signs, symbols, diagrams, writing, numbers and notation systems for mathematics, logic, and code). (3) Archival methods. How to access and interpret earlier, original, primary sources (documents, artefacts, devices, technical documentation) from online data sources (archives, libraries, museums). Students will work on interdisciplinary research projects for doing their own “deep dive” into the history of concepts and contexts that have led to where we are today. Outcomes: By the end of the course, students will be able to apply this interdisciplinary knowledge of the history of computing to many fields and careers, including design, applications in digital media, and becoming capable communicators of the key concepts to others who don’t come from a technical background. This knowledge is not only important for understanding the foundations of computing systems today, but also for conceiving what can be possible in new future designs and applications by extending the concepts further. In addition, learning archival methods for access to history in original primary sources is an important skill in many disciplines, fields, and careers. Students with this competency will always be in demand for being able to do original research, interpret relevant sources, and apply historical knowledge gained from direct access to primary sources (original documents, designs, artefacts, earlier technologies).
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a program in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 5039 Technologies of Persistence 3 Credits
Do you find yourself thinking about the end of the world more often than you used to? Does the potential of an apocalypse fill you with dread? With questions? With hope? What will it take for civilization to persist in the face of the cataclysmic shifts that many agree are on the horizon? And would that civilization be any place you want to live in? If you are looking for answers to these questions, this might be the course for you. Technologies of Persistence will focus on three areas of inquiry during our semester together, each centered on one particular notion or question of technological persistence in the face of unknown futures. First, what technologies have persisted over time, are truly essential for human civilization, and why? Technologies that fall into this category are things like the wheel, or a clock, or antibiotics. They are the cornerstones of civilization that make life possible, sustainable, and bearable for humans on planet earth. Our initial exploration will look at the history and social context of these kinds of technologies and what makes them both stable and stabilizing. A second category of persistence that we will examine encompasses the technologies that should not or might not deserve to persist or actively threaten humankind. Identifying technologies that somehow make our lives worse is difficult because they are frequently hidden from view, come with trade-offs that we are often unwilling to make, and are protected by powerful forces who benefit from our ignorance. These technologies might include things like weapons of mass destruction, human trafficking (which is enabled by our dependence on global shipping), AI, or certain kinds of financial structures and instruments. We will learn to identify potential candidates for ‘sunsetting’ or ‘de-iteration’ and critique their costs and benefits to determine which technologies we believe should persist and in what form. The final category of technologies of persistence are those which will help humanity persist in the face of the tremendous social and environmental forces that threaten our existence. Where should humanity concentrate its collective effort if it is to advance the technologies it needs to live sustainably into the future? How do we want to live? What technologies will help us persist? What forces are acting against those goals? These important questions will help us chart the course for humanity’s future, in whatever form it may take. This course fulfills the CCT methods requirement. 1) Futures and foresight methods are a class of design methods aimed at helping businesses, policy-makers (such as governments and NGOs), and communities understand the future impacts of their decisions from social, economic, and technical perspectives. 2) Students will gain familiarity with 6-8 different futuring methods by participating in and planning futures workshops on topics related to “technological persistence.” 3) As design methods, futuring approaches are intended to help stakeholders surface their assumptions, reach consensus, choose between available options, and understand the likely impacts of decisions. 4) Design methods differ from other methodologies depending on the context and the type of design methods employed. In product development, design methods are focused on creating and iterating on products or services, based on data obtained from other research methods (either qualitative or quantitative). In some cases, design methods (and FFM in particular) can serve as the basis for qualitative data about a particular group of stakeholders.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Students cannot enroll who have a program in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 5040 Media Management 3 Credits
The students in Media Management will conceive, develop and market a professional Business Plan for a small digital start-up company. Working in groups, they choose and develop the product concept. Through examining and researching real-world examples, the inter-disciplinary skills and knowledge acquired will include: Group leadership and participation, staging meetings which encourage idea-generation, the process of budgetary and strategic development and planning, recruitment and employment practices and regulations (including current practices to encourage diversity in the workforce), performance evaluation and motivation, finding potential sources of investment funding, marketing and entrepreneurial skills, and tools for evaluating return on investment (ROI). We'll also discuss and examine practiced methods for meeting legal, ethical, and staff-management challenges, including how to establish a professional, friendly workplace environment which fosters zero tolerance for harassment, discrimination and "me-too" issues.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Students cannot enroll who have a program in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 5041 VisualMethodsforDataCollection 3 Credits
Visual anthropology is a branch of anthropology that covers many topics, from the representation of populations to the forms of knowledge production and its dissemination. Although the use of photographs and video has accompanied anthropology since its inception, it is during the nineties that the sub-discipline begins to be defined as such. Several authors (Murphy and Banks; Pink) outline two major objectives of visual anthropology: # The use of audiovisual material as a tool for data collection, analysis and distribution. # The study of visual systems and the visual features of culture

This course will focus on the first of these objectives. Through the course, students are expected to: # Develop the skills to create research designs from a visual anthropology framework # Learn to design tools for data collection and analysis specific to the visual anthropology sub-discipline # Be able to develop audiovisual content using digital tools
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Students cannot enroll who have a program in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 5042 Tech Entrepreneurship 3 Credits
Each day, new innovations enter the market, potentially defining how we view our world or our relationship to it and others in it. Many are iterations, incremental improvements in existing technologies, while others represent wholly new paradigms or market segments. Regardless of the scale, however, each of these innovations started with an idea that was nurtured, tested, and refined before it came into the general consciousness of our society.

In this course, we will explore how innovations are brought to market through the lens of forming and launching a technology startup. We will examine each of the major functions that define an early stage company (e.g., technology, finance, operations, marketing) to understand how these areas interact and what they contribute to delivering long-term value to the fledgling company.

To this end, as a class, we will spend the semester working through the formation and launch of a fictitious company, Hoya, Inc. that will form the foundation of our case-based class discussions. In parallel, students will form in groups of 2–4 to create their own in-course startups (which may be based on their own IRL startups, as applicable). Working in teams, the companies will apply the learnings from the readings and class to form, launch, and grow their own fictitious startups over the course of the semester, culminating in a mock pitch event on the final day.

During the course of the semester, students will learn how to develop several key artifacts common to all startups (tech-based or otherwise), including: - A pro forma financial model (in Excel and/or Google Sheets) - A capitalization (cap) table (in Excel and/or Google Sheets) - An investor-focused pitch deck (in PowerPoint or Google Slides) - A go-to-market strategy - An executable SAFE (Simplified Agreement for Future Equity)
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a program in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

Enrollment limited to students in the Main Campus or Medical Center campuses.

CCTP 5043 Storytelling with Data AI 3 Credits
Data visualization helps us translate qualitative and quantitative information — like interview responses or budget data — into compelling narratives. Through practical exercises and real-world case studies, this course introduces students to a variety of free and accessible data visualization tools that require no coding or special software, like Data Studio, Flourish, Infogram, and Data Basic. We complement this with theoretical and practical techniques for effective visual storytelling, such as typography and color theory fundamentals. We also critically assess the field of data visualization, grappling with questions of diversity and accessibility, the ramifications of AI, and data viz career opportunities. Students will leave with a robust and practical toolkit to use data visualization as a broad-purpose storytelling method that they can immediately apply at school, at work, and in their everyday lives.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 5044 Media Civic Engagement 3 Credits
This course meets the CCT methods requirement. The class will employ an active learning approach where students will design and conduct a research project measuring civic engagement and analyze the results using basic statistical tests. No prior experience with statistical methods is required, as the techniques will be covered in the class. >br>
Civic engagement encompasses a wide range of activities, political and non-political, that promote the public good and are intended to improve the quality of life in communities and society. It involves the development of the knowledge, skills, dispositions, norms, and actions necessary for achieving these goals. The boundaries of civic engagement in the current political and media environment have been widening. Traditional forms of civic engagement include voting and participation in the electoral process, engaging in discussion and debate, participating in community affairs, volunteering, advocacy, and protesting. Digital media have created new spaces for these traditional forms of engagement and facilitated novel opportunities for expression, investigation, dialogue, voice, and action.

This course will begin by addressing the complex issue of what constitutes civic engagement in the current era. We will examine the nature and implications of digital media for political engagement as well as the ways that citizenship has been redefined in this context. Media's role in promoting and/or inhibiting the development of a vital culture of civic engagement will be explored. Topics to be covered include the shifting dynamics of electoral politics and public opinion in the digital age and media's role in civic engagement of young people.

Defining and measuring civic engagement has become increasingly challenging. The lines between offline and online engagement, authentic and performative engagement, and active versus passive engagement are blurring. We will tackle these issues directly through a project that will examine dimensions of civic engagement at Georgetown University. We will design and carry out a research project measuring the extent to which Georgetown students are engaging in specific aspects of civic engagement in conjunction with a project of the Institute for Citizens and Scholars Measurement Working Group which is taking place on twelve campuses nationwide.

Finally, the course will focus on civil discourse as a central aspect of civic engagement. We will explore the central question: How has the public sphere been shaped by new communication technologies? The nature of the public sphere and political discourse has become increasingly contested. Misinformation abounds. Incivility and hostility have become hallmarks of political speech. A vital public sphere consisting of places where citizens come together to discuss core values, issues, and events is an essential component of civil society. Communication is necessary for developing norms of cooperation in society. Public debate allows citizens to communicate with government officials and institutions, and to engage in problem solving. Media help citizens establish community networks by generating awareness of issues and promoting voluntary activities. By providing information in a timely and accessible form, media enable people to make well-informed choices, thus building support for democratic governance. We will examine the characteristics of civil discourse, the sources of incivility, such as political polarization, and mechanisms for countering divisive trends, including ways to productively discuss difficult topics and civic education.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a program in Commun, Culture

CCTP 5045 Visualizing Comms Data 3 Credits
Images are invaluable tools for communication. Visualizations are highly useful to academics, artists, business professionals, among many other sectors. In this course, students will develop skill sets in managing, cleaning, and visualizing data. We will work together, drawing on best practices on cleaning and responsibly storing data. We will work with visualizing variables, bivariate relationships, networks, geospatial and interactive graphics. This course will primarily work with R Studio. We will work with multiple packages, including ggplot2, dplyr, and shiny packages in R Studio. No prior knowledge of R or R Studio is necessary. Students will be expected to produce a storyboard on a topic of their choosing using the skills they have gained in class.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 5046 Gaming the System 3 Credits
The field of Systemic Design is growing exponentially. While both systems science and design have long and independent histories. Despite some common philosophical assumptions, the two fields remained largely distinct until the last decade. The growth of any field is dependent on advances in theory and method. Generally, current methods in Systemic Design are largely dependent on an elaboration and exploration of "complexity" in a variety of settings. Most commonly, methods that borrow "system mapping" from the systems science and engineering community with a variety of "participatory and co-design" techniques aimed at maximizing stakeholder engagement. However, systems mapping is only one step in addressing systemic problems. In engineering, next steps are often development, deployment, and testing of designed systems. However, where social systems are concerned interventions of this kind are not so simple. Borrowing another technique from engineering, simulation, as a faster and more ethical method of testing interventions in social systems is a potential next step. Yet, this approach has remained largely unexplored. Games are an ideal way of introducing simulation into systemic design. Games are simulations and have a rich history and connecting to systems thinking. Game Design is also its own unique subdiscipline with co-design and prototyping methods of its own. In this course, we will explore the history and practices of systems science and engineering, as well as games and game design as we develop and deploy a methodology for creating game simulations to test interventions in social systems. This course satisfies the CCT methods requirement.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 5047 Useful Frictions 3 Credits
This course fulfills CCT's Methods requirement. Course Description: Friction makes things more difficult, and is therefore typically a bad thing when it comes to User Experiences. Many pages have been written about the virtues of minimizing friction and many more on ways to remove it from user interactions of every type. Yet, if we interrogate the philosophical assumptions underlying these positions other possibilities emerge. The field of user experience has advanced alongside other sub-disciplines in technology and design. This family resemblance extends to issues of ethics as well. Just as technologies have largely advanced with efficiency and profit as the main drivers of innovation, so too has UX evolved to uncritically reduce friction in the name of these same goals. "Buy it now" buttons reduce the friction on our purchases, infinite scrolls of news feeds or cat videos keep us from thinking about how much time we've been wasting, it has never been easier to "find our friends" as long as we're willing to give up our privacy by accepting the default settings. As the technology industry begins to question its underlying assumptions, it is time to also rethink the value and the usefulness of friction. In this course we will subvert the most common methods of user experience design to introduce friction into our technological interactions and create much needed mental and physical space. How we use it is up to you.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 5048 Graphic Design Studies 3 Credits
This course develops skills for the critical analysis of graphic design. Graphic design operates at the intersection of text and image, and we will situate this relationship through applied, historical, and comparative studies of design practice. The course emphasizes a development of vocabulary for critical design studies, the social and political context of design practice, and the relationship between technology and visual aesthetics. Topics include typography, the use (and misuse) of color, printing, key design movements, and the technical changes of industrial and digital production. Assignments include a series of template-based design projects in which students gain working knowledge of graphic design software (Adobe InDesign). Note: Although students practice design skills, this is not an applied or how-to course in professional graphic design.

This course emphasizes the development, use, and critical evaluation of digital communications media. It includes instruction in the design and development of digital communications and the study of human interaction with digital media, as well as emerging trends and issues in the computational and digital landscape.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5049 Research SynthesisTranslation 3 Credits
This course focuses on two elements: 1) research synthesis - taking large quantities of information and distilling it down into key findings - and 2) translation - communicating those key findings in ways that will make sense to different audiences. As part of this process, students will learn the interdisciplinary method of conducting a systematic review of research on a particular topic. This supports the furtherance of knowledge by compiling and curating existing research on the topic, part of the scientific process. They will also identify key audiences that should be interested in the research, find out what format would be effective for those audiences, and then create translational products for those audiences. Core deliverables will include: - Systematic review - Stakeholder mapping and communications plan - Translational products including graphics, executive summaries, infographics, short videos, etc - Multimedia video explainer - Expert presentation Students are expected to have taken coursework that has included reading quantitative research.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 5050 IntroAI:DesignPrinciplesAppl 3 Credits
This course introduces Machine Learning (ML) and Artificial Intelligence (AI) by opening up the design principles and key concepts that make the technologies possible and enable all the applications we use. This course is especially designed for students from non-technical backgrounds. Students will learn methods for “deblackboxing” the complexity of ML/AI systems by breaking down the larger systems of computing and data into the subsystems that are combined to create the processes that happen “blackboxed” between our inputs and outputs. Students will learn the main building blocks of all contemporary ML/AI systems: data encoding (how text and images become computable data), pattern recognition, and the computational methods (based on statistics and probabilities) for analyzing large data sets and generating responses as outputs from our prompt inputs. Students will learn the “why” and “how” in the designs for “generative AI” (Gen AI) systems (like ChatGPT, DALL-E, Claude, and Stability), and how we can use these applications for research and creativity. We will do many “hands on” experiments with the AI/ML systems, and students will develop their own research projects for understanding and applying the systems. We will also study the important ethical issues for ML/AI, beginning from an important foundation: ethics must always start with the truth about the technologies themselves. Outcomes: By the end of the course, students will have gained the core knowledge of the design principles of AI/ML systems, and will be prepared to use the applications in their own fields and careers in informed and critically aware ways. Students will also be prepared to participate in developing new applications in AI/ML, and be able to critique applications for their ethical and political consequences. In addition to attaining conceptual and applied knowledge for AI/ML systems, students will also achieve the competency for being explainers and communicators of truthful explanations of ML/AI technologies, a competency now greatly needed in every field and profession.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 5051 New Media Texts, Acr Cultures 3 Credits
This course explores the field of Comparative Media Studies. Each unit pairs an English text with a non-Western one—and then asks what the contrasts tell us about each respective culture. Such texts emerge in a variety of New Media—including, for instance, Graphic Novels (Comic Books), Anime, Video games, Fan Fiction, Fan-Viding, Comi-Con, TikTok, Instagram, Metaverse Environments, Blogs, Podcasts, Remixes, Online Journalism, RSS-Feeds, Wikis, Online Communities, Hypertexts, the new E-books—as well as in recent television reality shows, talent contests, dramas, and other experimental forms. Here's the way the class works: after covering the general background and foundations of the field, we develop special topics in the seminar according to the particular research interests of each class member. For the Fall 2025 semester, we will also be adding short units on New Media in Asia: including the pan-Asian influence of Japanese anime and manga; Korean television, celebrity, and K-Pop; and Chinese developments in cinema and variety shows. (In this context, we will also review advances in Bilibili, Alibaba, Sina Weibo, Baida, Youku, Tudou, Taobao—and Mukbang.) More generally, we will also be considering such media in light of Gender Identity, Cross-Cultural Understanding, International Marketing, Political Communication, and Adaptation Studies (that is, the adaptation of literature to film, television, and YouTube, such as the “Lizzie Bennet Diaries” riff on Jane Austen’s Pride and Prejudice—and also Disney’s intercultural transplants, such as Mulan, Zootopia, and Frozen). Other units will compare graphic novels from several cultures, such as Fun Home, Akira, Boys Over Flowers, Persepolis, The Watchmen—and the Marvel canon. Finally, we will also include studies of dating, talent, and romance media—including “Produce 101,” “American Idol,” “Idol Producer,” “So You Think You Can Dance,” “The Bachelor,” “Heart Signal,” and “Are You the One?” Here again, we consider all media from a comparative, cross-cultural perspective, including the English subtitling of Japanese anime, Korean drama, and other non-Western genres. Later in the term, each student in the class chooses a research topic of his or her own interest—the choice is completely open--and makes it their central project for the semester. Once we have a list of these individual topics, part of our syllabus shifts in order to incorporate these specific interests of the students enrolled that semester. Individual projects might include, for instance, cross-cultural comparisons of museums, libraries, or art collections. They might also include cross-cultural analyses of digital copyright, digital “texts,” and online editions of literary works. Students might ask, for instance, how “graphic” texts by Lewis Carroll, Dickens, Thackeray, Sterne, Blake, Danielewski, Austen, Byron, Dickinson, and Charlotte Bronte compare cross-culturally with works like The Dream of the Red Chamber and “Farewell, My Concubine.” Students will learn how International Relations and Intercultural Communication have been transformed by new digital technologies and human interactions enabled by digital media. Such computer technologies will include emerging trends in advanced global communications (such as the CGI interaction between Idols and international users on Weverse and Bubble Platforms); the technologically-enhanced, international communication between participatory users and content creators (such as on Niconico, Bilibili, VTubers, and other global modalities); and Data Encryption (including the creation of streamed subtitles and enhanced dubbing). (As this list of units suggests, the class will be address global technologies that are only just now emerging in the U.S.) More generally, students will learn how International Relations and Intercultural Communication have been transformed by new digital technologies and human interactions enabled by digital media. Such computer technologies will include emerging trends in advanced global communications (such as the CGI interaction between Idols and international users on Weverse and Bubble Platforms); the technologically-enhanced, international communication between participatory users and content creators (such as on Niconico, Bilibili, VTubers, and other global modalities); and Data Encryption (including

CCTP 5052 ResSem:MediaAmericanPolitics 3 Credits
Media have been an essential element of American politics since the founding. Yet, at no time in history have the media been more pervasive and integral to government, politics, and civic life than during the present era. Innovations in communication have precipitated shifts in the relationship between political actors, institutions, and the public. The constantly evolving media ecosystem has changed the dynamics of election campaigns and impacted the ways people engage in their communities. These developments have created novel challenges for civic education and preparing the next generation for participation in politics and society.

This seminar will provide students with the opportunity to plan and carry out a social scientific research project of publishable quality. Students will learn the fundamentals of conducting a research project, including study design, literature review, theoretical framework, methodology, hypothesis testing, and reporting findings. A key objective of the seminar is to provide participants with an intensive, hands-on research experience. Students will identify a research topic that they will work on either independently or in small groups over the course of the semester. Examples of topic areas include, but are not limited to, traditional and social media’s influence on politics, media and election campaigns, and educating students for digital civic engagement. Each student or small group will focus on readings related to their research topic. Additional readings will address research design and methodology. Seminar meetings generally will consist of short classroom presentations on research design, theory, methods, and analysis followed by work on the project. The seminar should be considered a resource--a place to discuss research strategy, share ideas, address challenges, and provide and receive constructive criticism. The seminar will draw upon the resources of the Civic Education Research Lab (CERL).
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 5053 Comm Theory/FrameworksStandard 3 Credits
Are you interested in understanding the theories behind communication practices? This course provides students with an overview of over 30 theories in communication. The course will examine the contexts of interpersonal, organizational, mass communication, and mediated communication. In doing so, we will use them to explain the content and form of messages and the role of communicators as individuals, participants, and members of communities. Students will explore how these theories explain various aspects of message production, underlying assumptions supporting these explanations, and the implications of these explanations on how communication is studied. Additionally, we will contribute our knowledge to the development of Wikipedia pages that explain these theories. This course will help you to understand theories and how they are used to support research and explanations.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 5054 Communities of Practice 3 Credits
Communities of practice are essential mechanisms for knowledge generation, knowledge exchange, situational and experiential learning in a knowledge economy. Students explore the four traditional components of a community of practice: community, domain, learning, and practice, as well as expanded dimensions of time, scale, growth pattern and network structures. The conceptual framework is applied to communities of practice in emergency and disaster response, e-science, Formula 1 racing, community gardening, beekeeping, citizen journalism, sports, politics and education. Today, every community of practice has some presence of non-human actors (e.g., artificial intelligence, smart systems, etc.). How do non-human actors affect the community structure, social relationships and interactions? What does it mean to establish mutual engagement with a non-human actor? What role do non-human actors play in a community of practice? Emerging diagnostic methods and instruments are applied to assess the health of real-world communities of practice. Diagnostic models are applied to the four components, leveraging both qualitative and quantitative research methods.
Level: Graduate
Course attribute:
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 5055 Cultures of Knowledge Orgns 3 Credits
This course introduces students to the theory of culture established by thought leaders such as Hofstadter, Schein, Dennison and Lewis. Students learn and apply the five layers of culture - assumptions, beliefs, values, behaviors and artifacts – to real world cultures, including the cultures of music, film, science, military, sports, politics, health, diplomacy, and fashion. The course bridges existing gaps between cultural theory and everyday cultural competence and intelligence. Students also explore the effects that non-human agents (e.g. artificial intelligence and other digital media) have on human cultures? How might 'value- and ethically incompetent' actors affect our ability to frame and make decisions? How might intelligent non-human actors affect our ability to judge right from wrong? How might intelligent non-human actors integrate into different human cultures? Students explore cultural intelligence and competence using two methodologies: (1) examination of individual and collective cultures using established assessment instruments (e.g. CultureActive, Culture Values Profile, KLC Profile); and (2) after action reviews of intercultural experiences based on emerging qualitative research. The course translates theory from anthropology, archeology, sociology and knowledge sciences for practical application in knowledge societies and economies.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 5056 Multimedia Production 3 Credits
Communication and marketing professionals increasingly need a combination of production skills to produce images, documents, videos and podcasts simultaneously. Using storytelling techniques at its base, this class will combine creative writing styles with professional production skills for recording and presenting audio, video and graphic design images. Students will learn how to produce compelling audio/visual content for live audiences, websites, blogs and internal communications. For example, a podcast also becomes a YouTube Video, or a video presentation for a live group. By combining these skills, we will learn how to produce multiple elements at the same time, which complement each other and achieve economies of scale for our working team.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 5057 Exploring AI forApplied Impact 3 Credits
TBD
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5058 Problem of AI: Emerg Gov Flash 3 Credits
Artificial intelligence and new digital technologies are transforming society in profound ways. The same technologies advancing medicine, finance, and every industrial sector are creating generational disruptions to everything from work, the environment, and the creative economy to family life, the wellbeing of children, and what it means to be human in the age of AI. Difficult governance questions follow. Who owns creative works and culture? How do we keep humans in the loop of machine decisions with consequences for national security, privacy, speech, and human safety? Who is responsible when autonomous technologies cause harm and how can the most vulnerable members of society be protected? How can discriminatory bias be identified and mitigated in opaque technologies hidden from view? How can systems authenticate whether someone is a live human or whether a video or image is real or a deepfake? How should cyber governance evolve when hacks are no longer carried out by humans? What regulatory structures are necessary to promote innovation and productivity while addressing these societal concerns? How these many questions unfold will shape humanity for decades. Yet, regulatory frameworks around agentic AI, companion robots, chatbots, and nearly every other manifestation of artificial intelligence are lagging behind technological change.

Students in this course will confront the major AI governance flashpoints of our time and analyze emerging frameworks of technology governance rising to address these concerns. Learning objectives include:

1. Develop Sociotechnical Thinking. Through real-life case studies in AI and theoretical frameworks from Science & Technology Studies (STS) and global technology governance, understand the societal implications of AI systems, including: chatbots and companion robots; chips and compute hardware; generative AI and Large Language Models (LLMs); AI cloud infrastructure, data centers, and hyperscalers; cybersecurity systems; AI applications and AI agents; and supporting energy systems.

2. Understand Multistakeholder Points of Power in AI Governance. Learn how technology governance involves distributed levers of control across technical design and standardization, the policymaking role of private industry, algorithmic ordering, traditional regulation, global technical coordination, and arrangements of digital infrastructure as arrangements of power.

3. Analyze Real-World AI Governance Flashpoints. Become well-versed in contemporary AI governance debates, identifying what is at stake, explaining alternatives, and articulating stakeholder positions. Flashpoint examples include: proof of liveness; cybersecurity and hacks without humans; governance of agentic AI; inauthentic behavior, information integrity and deepfakes; the wellbeing of children; the future of work; governance of companion robots; algorithmic bias and discrimination; national security and human safety; and data governance and privacy.

4. Develop Evidence-Based, Ethical Stances. Students will have the opportunity to stake out evidence-based, personal, ethical stances on the major AI governance debates of the contemporary era, making feasible and practicable recommendations for a technological future for the good of humanity.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5059 Global Science Fiction Film 3 Credits
"Science fiction is a genre whose necessary and sufficient conditions are the presence and interaction of estrangement and cognition, and whose main formal device is an imaginative framework alternative to the author's empirical environment." – Darko Suvin, Metamorphoses of Science Fiction (New Haven, Yale University Press, 1979) pp. 7-8. This course examines science fiction cinema as it depicts a range of concerns about the relation of technology to contemporary human life. The genre of science fiction historically has been a medium through which authors organize their comments about human life in fantastic imaginative contexts. Science fiction has served allegorically to provide readers and spectators the opportunity to consider topics of social life and subjectivity, politics and power, identity, eros and sexuality, language and communication, the nature of historical change, the environment, etc. Science fiction does this by anchoring its fantasies to science and, more particularly, to technology. Indeed, the expressive medium of film can itself be understood as a newer technology--one now almost 125 years old--through which modern societies have considered the utopian and dystopian possibilities for human life and related technologies in individual and social contexts. Organized around three themes—Bodies and Monsters, Memory, and Machines--the course considers science fiction film produced in different regional and national spaces, and it does so in order to reconsider assumptions about science fiction film and the varying kinds of artists who embrace the genre for their expressive purposes. For the spring 2024 semester, the special theme for the seminar will be on artificial intelligence, and the screenings will include: 2001: A Space Odyssey, Colossus: The Forbin Project, Dark Star, Zardoz, Demon Seed, Electric Dreams, Making Mr. Right, Johnny Mnemonic, Teknolust, Computer Chess, 2046, After Yang, and Ex Machina.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5061 Nervous System of Democracy 3 Credits
The Nervous System of Democracy
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5062 Online Safety 3 Credits
Online Safety
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5063 Public Affairs Advocacy Comm 3 Credits
Public Affairs & Advocacy Communication
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5071 Regenerative Infor Systems 3 Credits
Designing to Flourish: Building Regenerative Information Systems
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5150 Intro to DesignTheoryPractice 3 Credits
This course introduces design as a creative, analytical, and systemic practice for understanding and shaping the world around us. Students will be introduced to the foundations of the most common design subdisciplines (graphic, interaction, game, service, etc.) while learning the history of design as a discipline and how contemporary design methods can be applied to solve complex social and organizational problems. Through hands-on and collaborative exercises, students practice and integrate visual communication, interactivity, and systems thinking — developing skills in research, problem framing, and prototyping. Emphasis is placed on understanding design as an iterative process of inquiry: defining problems, generating ideas, testing solutions, and reflecting critically on outcomes. By connecting the aesthetic and technical dimensions of design to broader social, environmental, and technological systems, students learn to think across disciplines and design with intention and impact. No prior design experience is required. This course prepares students to relate design to their major discipline and to do advanced work as part of a larger design curriculum. Note: A proposal for a minor with this course as its gateway has been submitted. This course fulfills CCT's methods requirement.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate or Undergraduate level students.

CCTP 5555 Discovery Studio 6 Credits
A new course co-taught by Profs. Osborn and Barba. Students work individually, in teams, and as a full group at various times as they use a design research process to engage a set of research questions centered around social, political, and technological trends in a domain of their choosing. As groups, students are responsible for organizing and facilitating design workshops with key stakeholders. As individuals they follow a separate digital or material process to construct an artifact that embodies an outcome of that research. Where possible, partnerships with regional professional groups will provide real-world context for the work. This course uses a proven pedagogical approach pioneered by Profs. Barba and Osborn and colleagues as part of "The Pilgrimage Project."
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 5925 CCT Internship 1-3 Credits
This course is intended for CCT students who want or need to earn credit for an internship. The internship should integrate coursework with professional experiences that meet CCT Learning Goals. For course details, please refer to the CCT Student Handbook.
Level: Graduate, Undergraduate
Grading: Pass/Fail Default
Equivalent to CCTP 6001
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6001 CCT Internship 0.25 Credits
This course is intended for CCT students who want or need to earn credit for an internship. A reflection paper and the employer's evaluation are due at the end of the internship. Further details of the course can be found in the CCT Student Handbook. Please contact CCT Academic Affairs after registering.
Level: Graduate
Grading: Pass/Fail Default
Equivalent to CCTP 5925
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6002 Corporate Social Responsibilit 3 Credits
This course will explore the growth of Corporate Social Responsibility (CSR) as an industry concept, as an observable, contemporary communications phenomenon, and as a response to digital media culture and crowd-sourced journalism. We look at the origin of CSR and track its progression to current state amid the rise of digital media, the breakdown of traditional media, and the U.S. Supreme Court's decision allowing corporations, in certain circumstances, to be viewed as individual citizens. We look at how companies manipulate CSR to assert their privileges, viewpoints, obligations, and ultimately their rights within the public discourse. What are the communication strategies corporate entities use to transform their organizations into human persona with identifiable political/race/gender/nationality characteristics? And how do those choices affect increased profit and greater social standing? How do social media savvy CEOs – Tesla's Elon Musk, Amazon's Jeff Bezos, Facebook's Mark Zuckerberg, Apple's Tim Cook and others – marry their personal convictions with CSR to build their corporate brands? How can corporate social responsibility become a political tool? How can it result in net positives for society? In what ways have public discourses in social media and crowd-sourced journalism established new expectations of corporate citizens? The course uses case studies, news events, and research and theory described in our textbook in conjunction with a healthy dose of class discussion to try to answer these questions as we explore the new anatomy of corporate citizenship and corporate social responsibility.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6003 Design/Prototypg in Makerspace 3 Credits
What are makerspaces and why do they matter? How can you leverage not only the tools and resources, but also the communities of makerspaces to design and develop successful solutions to commercial, social, and creative problems? A makerspace is a collaborative work environment inside a school, library, or separate public/private facility, typically equipped with a range of fabrication tools for making in a wide variety of materials and media. Oftentimes, due to the shared nature of makerspaces, they are able to provide equipment and resources usually out of reach for most individuals. Stemming from the communal character of these spaces, makerspaces are defined by the people that use it and the culture of learning, exploring, and sharing that develops within them. In this course students will learn not only the “hard” skills of design and fabrication with a wide range of tools, but also the “soft” skills of empathy, communication, and collaboration necessary for innovation. This course will provide hands-on, practical learning opportunities through skill-building and volunteer service in the Georgetown Maker Hub. Additionally, students will reflect in groups and through writing assignments on their experience, considering such questions such as: What makes a makerspace successful? Who decides? How does a vibrant maker community serve as a catalyst for new ideas and a resource for design, implementation, and testing? A major portion of the class will be devoted to the development of independent “Maker Projects,” in which students will develop an object, item, or device that solves a creative, social, or commercial problem. Class activities and assignments will include: # Volunteer service in the Maker Hub # Maker skills training in areas such as 3D printing, laser cutting, small electronics, etc. # Lectures and guest speakers # Assigned readings # Group discussion # Reflection and research papers # Independent making projects
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6005 Journalism Politics of Terror 3 Credits
This course investigates the interplay between events (natural and man made including acts of terrorism) that can strike terror, fear and anxiety around the world and the communication about such events. While modern terrorism can be seen as a form of strategic communication in which media, especially news media, amplify messages about terrorism to a world-wide audience, influencing audience perceptions about the world, catastrophes in general bear a special challenge to journalists and audiences alike as such media events often evoke fatalistic or stereotypical news coverage or is manipulated by interested stakeholders. The course will focus on how news and entertainment media portray catastrophes, terrorism and terrorists, and the effects of such events and media portrayal of catastrophes and terrorism on public perception and public policy. Moreover, the course examines how journalists deal with or are impacted by the coverage of terrorism, war and natural catastrophes.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6006 Global History Comps Internet 3 Credits
Digital technologies have a cultural, political, social, international and global richness investigated, celebrated, and critiqued in this course. Although a great deal of the history of computing, internet and web histories, and new media history are studies of the U.S., computers have always been both global and local. CCT-590 highlights this aspect of computing by looking at the technologies across time (from the 19th century to the present) and space (surveying regions from around the world). The course begins with the origins of commercial computing industry at the turn of the 19th century. It moves into different war eras, covering the role of computers in code breaking in World War II and culture of Cold War computing. Next it covers the transition from mainframes into personal computers and then electronic networks in the U.S., France, Brazil, the Soviet Union, and China. It will also cover Socialist cybernetics in Chile, the technopolitics of Apartheid South Africa, and the challenges presented by character code Asian languages. Finally, the course will cover the origins and technologies of the early web and the history Web 2.0 platforms. Each class will include readings categorized into cultural context, technical material, and primary sources. Assignments will include weekly discussion posts and three essays (or alternative media project). The course is largely based on Paul Edward’s syllabus and design. The course requires four main projects by students: weekly reading logs, class lead, book review, and final commentary, as well as participation, described in more depth on the following pages. Each weekly reading is organized to include a main reading, a historical context reading, some technical content, and a primary source described in detail in the schedule below. Course Objectives: --This course will provide students with substantive knowledge of how computing has mattered to the world over time and across geographies. This knowledge will be a weaving of the historical, cultural, political, technical, and ethical. --Students will gain experience leading a group to achieve a particular goal, highlighting organization, presentation, and knowledge transfer skills. --Students will have the opportunity to improve critical, synthesis, and writing skills, as well as learn how to submit writing for publication.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6007 Free ExpressionGlobalInternet 3 Credits
Free expression on the global Internet is a highly contested and complex issue. Clashes between rights and other important global interests continue to escalate, even as solutions remain elusive. At its inception, the Internet was envisioned as a medium for unfettered and diverse free expression, access to knowledge and democracy building. All people, regardless of borders or status, would have an equal voice, and the power of gatekeepers to censor and suppress speech would be diminished. Today, even as much of that vision remains intact, the exploitation of the medium for terrorism, hate speech and repression have challenged that vision, and the increasing concentration of power in the hands of a few major technology companies reinvigorates concerns about the power of gatekeepers. What are the legal, policy, and practical forces that shape free expression on the global Internet, and how should decisions as to where to draw the line be made? This class introduces students to the guarantees for freedom of expression found in the international human rights treaties, the legal and policy frameworks around freedom of expression in the U.S. and the EU, as well as the alternative vision for Internet regulation put forward by China. Students will examine how global data flows strain application of local law and elevate conflicts of law and jurisdiction. How have these countries responded? Students will be introduced to alternative models for governance of free expression including multilateral treaties, principles and guidance, multi-stakeholder initiatives and industry codes, with particular attention to the growing role of diplomacy as countries around the world shift away from the laissez-faire model of Internet regulation. The class will also closely examine the powerful role played by global Internet companies in content moderation, and will consider questions of legitimacy, transparency and fair process.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in E or Comp Sci, Ethics, Society.
Enrollment is limited to students with a concentration in E or Tech, Ethics Society.
Enrollment is limited to students with a minor in E or Tech, Ethics Society.

Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 6008 Fashion Law and Social Justice 3 Credits
This course examines fashion law and government policy through the lens of equity and social justice. Part one will cover intellectual property protection in design and fashion technology. We will also examine legal, business and policy developments related to tech innovation in fashion — including the regulation of AI, social media, data privacy and cybersecurity. Part two will address employment law, labor rights throughout fashion's supply chain, sustainability and international trade. Students will take part in interactive discussion throughout the course, with an interdisciplinary emphasis on fashion law, technology, public policy and social justice.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6009 Future Corporate Comm 3 Credits
This course examines the contemporary understanding of corporate communication, and how recent developments shape existing theory and practice into a new articulation of corporate strategy. Students will explore how organizations--both for-profit and non-profit--struggle to align key messaging to multiple stake holders who are increasingly suspicious of carefully crafted and controlled corporate viewpoints. We will look at how the growing importance of leveraging corporate citizenship and other intangible assets play a significant, if sometimes controversial, role in forming today's new era of business culture. Objectives include: 1) Explore the role of corporate culture in contemporary and historical contexts; 2) Examine the way new media affect how companies communicate; 3) Show the ways reputation has become a competitive advantage and how it's connected to corporate citizenship and sustainability; 4) Differentiate and see connections between the role of corporate and product brand strategy using analytical recent models.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6010 SoftPower, CommTech PolChange 3 Credits
Communications makes it possible for people to forge trust communities that foster social capital and can lead to political change. This class will study these trust communities at the national and international level. At the international level, communications are at the heart of soft power relationships among countries. A country's soft power is its ability to persuade other countries to its point of view through attraction rather than by coercion. In the study of soft power, in addition to media communications, we will also explore the role of migration, education, and travel - older forms of communication that preceded electronic communication. At the national and community level, changes in communications technology can give activists an edge in organizing social change, and make new tools available to governments to organize society.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6011 New Media Txts Acr Cultures 3 Credits
This course explores the field of Comparative Media Studies. Each unit pairs an English text with a non-Western one—and then asks what the contrasts tell us about each respective culture. Such texts emerge in a variety of New Media—including, for instance, Graphic Novels (Comic Books), Anime, Video games, Fan Fiction, Fan-Viding, Comi-Con, TikTok, Instagram, Metaverse Environments, Blogs, Podcasts, Remixes, Online Journalism, RSS-Feeds, Wikis, Online Communities, Hypertexts, the new E-books—as well as in recent television reality shows, talent contests, dramas, and other experimental forms.

Here's the way the class works: after covering the general background and foundations of the field, we develop special topics in the seminar according to the particular research interests of each class member. For the Fall 2023 semester, we will also be adding short units on New Media in Asia: including the pan-Asian influence of Japanese anime and manga; Korean television, celebrity, and K-Pop; and Chinese developments in cinema and variety shows. (In this context, we will also review advances in Bilibili, Alibaba, Sina Weibo, Baida, Youku, Tudou, Taobao—and Mukbang.) More generally, we will also be considering such media in light of Gender Identity, Cross-Cultural Understanding, International Marketing, Political Communication, and Adaptation Studies (that is, the adaptation of literature to film, television, and YouTube, such as the "Lizzie Bennet Diaries" riff on Jane Austen's Pride and Prejudice—and also Disney's intercultural transplants, such as Mulan, Zootopia, and Frozen). Other units will compare graphic novels from several cultures, such as Fun Home, Akira, Boys Over Flowers, Persepolis, The Watchmen—and the Marvel canon. Finally, we will also include studies of dating, talent, and romance media—including "Produce 101," "American Idol," "Idol Producer," "So You Think You Can Dance," "The Bachelor," "Heart Signal," and "Are You the One?" Here again, we consider all media from a comparative, cross-cultural perspective, including the English subtitling of Japanese anime, Korean drama, and other non-Western genres.

Later in the term, each student in the class chooses a research topic of his or her own interest—the choice is completely open--and makes it their central project for the semester. Once we have a list of these individual topics, part of our syllabus shifts in order to incorporate these specific interests of the students enrolled that semester. Individual projects might include, for instance, cross-cultural comparisons of museums, libraries, or art collections. They might also include cross-cultural analyses of digital copyright, digital "texts," and online editions of literary works. Students might ask, for instance, how "graphic" texts by Lewis Carroll, Dickens, Thackeray, Sterne, Blake, Danielewski, Austen, Byron, Dickinson, and Charlotte Bronte compare cross-culturally with works like The Dream of the Red Chamber and "Farewell, My Concubine."

Since the course material focuses on themes of cross-cultural communication and technical engagement, I am using the "instructor approval" mode of pre-registration in order to ensure a variety of academic interests, as well as a balance of both first-year and second-year students.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6012 Crisis Communications 3 Credits
This course takes an interdisciplinary approach to our study of crisis communications, drawing on theories, research and strategies that shape global media messaging in a highly connected world. We will look closely at how corporations, governments, nonprofit organizations, and social and cultural activists craft, influence, and foment agenda using digital media and other high-tech tools to circumvent, contradict or delegitimize traditional media channels. In addition, we explore how the design of personal networks democratizes and redefines relationships between messenger and critical messaging to particular audiences. The course will also look closely at the decision-making structures and processes of media institutions and their interrelationships with organizations and institutions seeking to influence them. Finally, the course investigates and problematizes the weaponization of technology in a crisis, focusing on the implications of shaming culture as a mechanism for population leverage.Throughout this course, we view these changing landscapes through the lens of crisis and strategic communications frameworks, paying particular attention to how crisis communications -– and the technological tools that deliver them -- are critical components of social change and public discourse today.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6014 Knowledge Economy Knowl Work 3 Credits
This course introduces students to a definition and characterization of the 21st century knowledge economy. While the course recognizes the role that technology plays in enabling the knowledge economy, the focus is on the shift from physical and financial capital to knowledge as the primary asset. When knowledge is the primary factor of production, work changes, how we manage organizations changes, our definition of capital investment and growth change. What does this mean for career paths, for who we work with, and for where, when and how we learn. What does this shift mean for the future of private sector, public sector, non-profit, and community-based businesses? Students will critique two case studies related to the “new economy”. For their course project, students will select an industry or economic sector and explain how the knowledge economy will change the market, work, workers, and products and services.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6015 Strategic Comms for Startups 3 Credits
Strategic communications is crucial to the success of new ventures, startup companies and leadership. This course will use case study, research-based information, and topical reviews of current state to prepare students to understand and overcome communication challenges when interacting with media, investors, customers, and business partners. By the end of this course, entrepreneurs, aspiring entrepreneurs, and future leaders will have a core set of communications competencies that they can leverage when building a business from ideation to the first paying customer.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a program in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6018 Rhetoric of War Conflict 3 Credits
Increasingly, information and language are used as tools of war, conflict, oppression, alienation and exclusion. This represents a shift in our understanding of information warfare which has focused on the prevention of attacks on information systems. This course explores the theoretical foundations of the language of war, conflict, oppression and alienation. Theory is compared to practice in a range of historical and current contexts. The course is designed for interactive discussion and knowledge exchange. The schedule will include presentations by and discussions with guest speakers. Course assignments include short analyses of selected use cases presented and discussed in class, and a student chosen topic for deeper analysis. Course Format: Lectures, discussion, and interaction with guest speakers
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6019 Misinformation and Society 3 Credits
Broadly, this course will cover the concept of true and false information, why it matters, what effects it has, and different approaches to mitigating it.The course will start with an introduction to the concept of misinformation. What does it mean for something to be true, and therefore what does it mean for something to be false? What different types of misinformation exist, and what are their characteristics? Why do we care if people are informed or misinformed – and what assumptions are we making about what it means to be informed.The next section of the course will focus on different reasons why people 1) believe, 2) create and 3) share misinformation, as well as how they do so. Incorporated into this section will be a brief history of misinformation and conspiracy theories, and how their dissemination has changed over time. It will also include descriptive information about how much misinformation is circulating in different places, how it spreads, and who is most susceptible to its effects.The third and final section of the course will focus on efforts to combat misinformation. This includes preventive programs like media literacy interventions designed to make people more skeptical of misinformation, and better able to detect it. It also includes strategies by dissemination platforms (ie search engines, social media platforms, traditional media) to identify and reduce the visibility and spread of misinformation. And it includes efforts at misinformation correction – giving people good information to hopefully outweigh the bad. This includes expert correction, journalistic fact checking, and peer-to-peer correction.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a program in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6020 Social Media Content Moderatn 3 Credits
This course will examine contemporary issues in content moderation on social media platforms through the lens of different theories of free expression. The course starts with an overview and critique of the traditional justifications for a regime of free expression (the search for truth, effective and legitimate political governance, and individual autonomy and dignity). In the second part of the course, we'll examine how the balance between online free expression and other values is addressed in legal systems in the U.S., Europe, China, and international human rights law. The last part of the course concerns special issues in contemporary online speech regulation including principles of transparency and accountability for platform content moderation, reform of online immunity laws, political pluralism in social media, proposed online safety bills imposing a duty of care for online platforms and what to do about online disinformation in politics and healthcare. Throughout we'll focus on the role of a sector-specific regulator with a mission to foster effective content moderation while preserving robust discussion of controversial issues of public importance.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a program in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6021 Disinformation Propaganda 3 Credits
This course will examine a global phenomenon that has taken on massive proportions in the world: the spread of disinformation. We will explore types of false information, from misinformation to disinformation to propaganda. We will survey the historical origins of these tactics including conspiracy theories, racist propaganda, and how they have been used by governments, interest groups and businesses to manipulate public opinion. Through a hands-on exploration of deep fakes and the alteration of text and image, this course will give students the practical skills they need to verify information and fact check. We will investigate the role of disinformation in international conflicts from Syria to Ukraine and examine the role of AI in amplifying disinformation and propaganda. Students will leave the course conversant in the basics of psychological safety, including stress management and PTSD especially as it relates to constant exposure to propaganda and disinformation.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment limited to students in the MA-CCAT program.

Enrollment is limited to Graduate level students.

CCTP 6022 Food Politics 3 Credits
This course will focus on the politics of food production, technology, and consumption. Topics covered will include how, when, and why we legislate about food in the United States, the role we play in international food politics (including trade, international aid, differences in regulations abroad), public opinion about food and politics, a history of food politics, the politics of diets, gender politics of food, food science and politics, politics of food advertising, and the food politics of poverty.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6023 Political Socialization 3 Credits
Political socialization refers to processes through which individuals acquire politically relevant values, beliefs, and attitudes. This course will address fundamental questions related to political socialization. How do children, adolescents, and young adults learn about politics? Form political beliefs? Understand the concepts and norms surrounding political behavior? The course will begin by considering general socialization patterns in children and young adults. The remainder of the course will spend a week each on different socialization forces, including institutions (family, school, religion), social interactions (peers, family, major events), inherent characteristics (genetics, gender, race), and technology (media, new technology). The goal of the course is that you come away with a better understanding of how political attitudes and beliefs are formed and maintained, and how outside institutions and campaigns may take advantage of those factors of socialization. This course should exemplify the CCT learning goals of interdisciplinary problem-solving, theory to practice, and the thematic focus of media and politics.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6024 Global Science Fiction Film 3 Credits
"Science fiction is a genre whose necessary and sufficient conditions are the presence and interaction of estrangement and cognition, and whose main formal device is an imaginative framework alternative to the author's empirical environment." – Darko Suvin, Metamorphoses of Science Fiction (New Haven, Yale University Press, 1979) pp. 7-8. This course examines science fiction cinema as it depicts a range of concerns about the relation of technology to contemporary human life. The genre of science fiction historically has been a medium through which authors organize their comments about human life in fantastic imaginative contexts. Science fiction has served allegorically to provide readers and spectators the opportunity to consider topics of social life and subjectivity, politics and power, identity, eros and sexuality, language and communication, the nature of historical change, the environment, etc. Science fiction does this by anchoring its fantasies to science and, more particularly, to technology. Indeed, the expressive medium of film can itself be understood as a newer technology--one now almost 125 years old--through which modern societies have considered the utopian and dystopian possibilities for human life and related technologies in individual and social contexts. Organized around three themes—Bodies and Monsters, Memory, and Machines--the course considers science fiction film produced in different regional and national spaces, and it does so in order to reconsider assumptions about science fiction film and the varying kinds of artists who embrace the genre for their expressive purposes. For the spring 2024 semester, the special theme for the seminar will be on artificial intelligence, and the screenings will include: 2001: A Space Odyssey, Colossus: The Forbin Project, Dark Star, Zardoz, Demon Seed, Electric Dreams, Making Mr. Right, Johnny Mnemonic, Teknolust, Computer Chess, 2046, After Yang, and Ex Machina.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6026 The Game of Chess 3 Credits
The centuries-old game of Chess is still one of the most popular games in the world. It is played by millions of people across all cultures. During this time, Chess has captured the imaginations, not just of players, but of artists, technologists, anthropologists and other students of human behavior as well, making it a “boundary object” common to many disciplines. Thus, Chess can be viewed through many different lenses and can serve as the locus of interdisciplinary investigation, critique, and insight.In this course we will analyze the game of Chess from many of these perspectives. After brief introductions to the history and rules of Chess, we will study the game in the context of Game Design and Games Studies, two related academic disciplines that provide a wealth of background for the study of games and simulation more generally, and have useful application in areas such as user experience (UX), cultural studies, and information science.Building on the topics in game design, we will then explore Chess as a designed artifact — examining stylistic differences in the creation of Chess pieces and boards themselves as well as the techniques and materials used to create them. Finally, we explore the intersection of Chess and technological culture from the famous Mechanical Turk, to Deep Blue, to Alpha Go in an attempt to understand why this game has become so intimately connected to progress in artificial intelligence.In addition to weekly reading and bi-weekly assignments and exercises, students will complete a final project that represents a deep dive into some aspect of the game and course in the medium of a student’s choosing. For example, students may wish to write a term paper investigating a cultural aspect of the game, implement a Chess-playing program, or design their own Chess set in a particular style.NOTE: Although playing Chess will be an important part of the course (you cannot properly study a game without playing it) this is not a course where you will be taught chess tactics or strategies (unless you want to investigate these as part of your final project).
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment limited to students in the MA-CCAT program.

Enrollment is limited to Graduate level students.

CCTP 6027 Communities of Practice 3 Credits
Communities and collaborative spaces are incubators of innovation, knowledge and intellectual capital creation. This course will explore collaboration and communities from both a theoretical and a practical perspective. On the theoretical side, we’ll explore the structural elements (network design and structures, community identity, domain definition, and the cultivation of interest and practice), their natural life cycles, their cultures of collaboration, and key roles and models that lead to successful outcomes. On the practical side, we’ll explore enabling technologies, knowledge flows, and the strategic placement of communities, and measurement of the impacts of communities. We will explore local communities, emergency and disaster management communities, e-science and invisible colleges, homesteading and gardening communities, beekeeping, journalism, sports, and spiritual/religious communities. Assignments involve modeling, analysis and critical assessment of communities of practice.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6028 Technologies of the Text 3 Credits
This course addresses the latest developments in New Media and the Digital Humanities—including several major technological, legal, and literary influences on this field. More specifically, the class is for those interested in twenty-first century changes to Graphic Novels (Comic Books), Videogames, Fan Fiction, Anime, Mash-ups, Blogging, Online Journalism, RSS-Feeds, Podcasting, Wikis, Online Communities, Web 2.0, Hypertexts, the new E-books—and other recent movements and experiments in New Media. What unifies such diverse media—and the course itself as well—are remarkably consistent definitions of “authorship,” “readership,” “news,” and “social media.” Here's the way the class works: after covering the general background and foundations of the field, we develop special topics in the seminar according to the particular research interests of each class member. For the Spring 2015 semester, we will be adding short units on New Media in Asia (including developments in Alibaba, Sina Weibo, Baida, Youku, Tudou, and Taobao), the Lizzie Bennet Diaries (a take-off on Jane Austen’s Pride and Prejudice), and Adaptation Studies (that is, adapting novels to film, television, and YouTube). In past years, we have also read the most popular hypertext ever written—namely, "Patchwork Girl," a powerful take-off on the novel Frankenstein (which we also discuss in the course). We have also read graphic novels such as the award-winning Fun Home, Akira, and The Watchmen (we saw the movie-version of the latter two as well). We consider all texts from a cross-cultural perspective, including American versions of Japanese anime and other non-Western genres. Later in the term, each student in the class chooses a research topic of his or her own interest--the choice is completely open--and makes it their central project for the semester. Once we have a list of these individual topics, part of our syllabus shifts in order to incorporate these specific interests of the particular students in the class that semester. During previous terms, we have looked at the historical origins of today's digital culture—including the history of museums, libraries, and art collections. We have also discussed the origins of copyright law, comparing the first amazing trials with today's debates about digital copyright (including the famous Amazon, Napster, and Mickey Mouse cases). And we have investigated notorious internet hoaxes (including the Lonely Girl scandal)—and traced their origins to the most intriguing art and literary forgeries (such as those by Thomas Chatterton). Students with other interests can also consider how various textual forms affect novels, plays, and poetry. How is literature influenced by, say, Thackeray’s emphasis on his novels' illustrations, Joyce’s preoccupation with pagination, or Emily Dickinson’s use of hand-made booklets and stationery? How did the serialization of Dickens’s novels in periodicals affect their composition, distribution, and readership? What do William Blake’s bizarre paintings tell us about his poetry? In the past, we have also read influential literary works by Austen, Defoe, Sterne, Pope, Wordsworth, Byron, Hemans, the Brontes, and Joyce—as well as some of the more recent, experimental developments within literary and electronic textuality. Students who are interested in exploring any of the foregoing topics can contact Prof. Michael Macovski at msm44@georgetown.edu." (This course is more technologically oriented than “History of the Book” [CCTP 687]—and there are no prerequisites for it. Students are asked to register for either course—but not both.) Assignments & Expectations of Students Students are asked to focus on one, extensive research project during the course of the term. If you would like more information about it, please email Michael Macovski at msm44@georgetown.edu.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6029 Knowledge Networks 3 Credits
Networks are the structures through which people, energy, goods, and communications flow. These networks were essential to an industrial society. Knowledge networks are the new highways and grids across which knowledge flows in the 21st century knowledge economy. Knowledge networks are networks dedicated to the exchange of knowledge among human and non-human actors. Students will learn how to identify knowledge network geographies, topologies, nodes, links and relationships, and flows. The course introduces students to models of scientific and research networks, learning networks, industry and business networks, protective and emergency service networks, civic and political networks, and networks of things. Course assignments focus on applying knowledge network analytics to networks of interest to students.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment limited to students in the MA-CCAT program.

Enrollment is limited to Graduate level students.

CCTP 6030 Break (Re)Build Trust News 3 Credits
How can we, the public, know what information to trust? This course explores this question in the context of digital news environments, which have democratized the market of ideas but also created breeding grounds for misinformation, propaganda and partisan viewpoints.This course will offer a solid theoretical understanding of how people develop and maintain trust and identify authentic information. Special focus will be given on how news outlets across the world have varied in their conceptualization and implementation of greater transparency with the aim of building greater trust. This will include an extensive examination of fact checking practices around the world and their effects in fighting misinformation and fake news.Students will apply newly gained theoretical concepts to explore and test pragmatic avenues to increase trust in the news and beyond. Through this theoretically guided, hands-on approach, students will gain a deeper understanding of recent socio-political, economic, and technological developments that have impacted communication in the public sphere -- and the publics’ increasingly fraught perception of news media and the contents they distribute.This course is for students who wish to learn how to build and regain trust -- not just with news consumers, but also with voters, customers, clients, and more. After all, trust is deemed a social lubricant essential for the success of any social, cultural, commercial, and political interaction. As such, at the end of the course, students will have gained a broad understanding about various factors that influence how trust is developed, destroyed, and rebuilt.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6031 Gender/Sexuality/The Body 3 Credits
There are no sites of identity more intense, more personal and more contentious than the intersection of gender, sexuality and the body. In this seminar, we will address the ways that the body has become a locus for the conflict and negotiation of public social, cultural, economic, historical norms and values with private spheres of love, intimacy, romance, friendship, sexuality, and gender. We will address questions of how gender, sex and sexuality are related and the manner in which the relations among them have historically changed over time. We will consider how ideas about public and private meanings of the body shift and the relation of critical thinking to the fact of these changes. The course readings include work by Lauren Berlant, Judith Butler, Simone de Beauvoir, Teresa de Lauretis, Michael Foucault, Sigmund Freud, bell hooks, Lisa Nakamura, Eve Sedgwick, Michael Warner, Linda Williams. The course includes film screenings that will include Vertigo, Imitation of Life, Alien, Brokeback Mountain, etc. Substantial reading, writing and discussion will be required, in addition to film screenings. Student evaluation will be based on short seminar papers and responses and the writing of a final research paper.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6032 Int/Compar Privacy Surveill 3 Credits
Every day, the news brings forth accounts of fresh privacy infringements and threats emanating from government agencies, corporate entities, and individuals. These actors gather and leverage information, both self-disclosed and shared by others, through a vast array of connected devices permeating society. New technologies force us to question how a balance can be struck between privacy and security, innovation and the rights of others. In this time of information policy influx, untangling old laws, new regulatory proposals, waves of best practices, and realistic enforcement is incredibly challenging and the subject of this course. International & Comparative Privacy and Surveillance will provide students with the theoretical and policy tools and comparative skills necessary to engage in public policy issues involving privacy and surveillance in a global context. The course will first introduce major theories of information privacy and surveillance studies. The majority of the course will be comparative. We will discuss international efforts to govern privacy and surveillance issues, and then students will delve into chosen topics to more deeply understand privacy and surveillance in the 21st Century.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6033 Intellectual Property 3 Credits
Intellectual property permeates all aspects of modern life – the products we consume, the media we experience, the technology we use. Is it illegal to make a gif from a popular film or tv show and post it online? Who owns the pictures on your Instagram account? Are you really bound by those long agreements you didn't read before you clicked “I Accept”? Is downloading an interesting photo you find on Reddit illegal? Can Kylie Jenner really trademark “Rise and Shine”? Who owns the code you write? Are we a nation of creators or creative felons? The concept of “intellectual property” reflects modern society's embrace of the counter-intuitive idea that we can promote the diffusion of knowledge, creativity, and innovation in the science and useful arts by securing exclusivity for their work for a period of time. Yet notwithstanding the pervasive effect of IP on our information-driven society, it is frequently misunderstood. This course will explore the means and ends of the modern IP system, analyzing how IP rights function, and how they influence new technology and contemporary culture. We will explore the major species of IP: copyright, trademark, and patent, with emphasis on the mutual challenges that copyright and digital technology pose to each other. Specific subjects explored will include: internet file-sharing and streaming, online copyright infringement, and digital rights management (DRM); the significance of copyright “fair use” in a networked age; software and business method patents; disputes over internet domain names, and others. This course aims to familiarize students from all disciplines including legal, with the nature of the modern IP system and acquaint them with a variety of IP issues that may confront communications, media, technology, and policy professionals
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6034 Intro Python Machine Learning 3 Credits
The objective of this course is to provide the student with an introduction to programming in Python (the language of choice for data analysis and machine learning) and an appreciation of how these programming skills can be applied to solving data analysis and machine learning problems. During the semester students will solve a series of increasingly complex programming and program analysis problems. By the end of the course, the student will be able to perform basic programming tasks in Python using the Jupyter Notebook, as well as analyze more complex machine learning and data analysis models, adjust parameters, and gain insight into the different approaches for addressing data analysis, machine learning and artificial intelligence problems.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6035 Virtual Reality Workflows 3 Credits
Co-taught by Visiting Distinguished Professor danah boyd, this course integrates literature from STS, sociology, and critical data studies to examine the work of data and algorithms in organizational contexts, with a particular eye to the ecosystem of U.S. federal statistics. Students will learn why data and algorithms are never neutral and, thus, how to detect when data and algorithms are being politicized, manipulated, and weaponized. Moving beyond the ideals of ethics, students will need to grapple with how ethical commitments get enacted through data practices and technical systems, as well as the policies that govern them. Students can expect to come away from this class with a deeper appreciation for the complexity of technocratic dreams of evidence-based policymaking.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a program in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6036 Comm Tech/Organizations 3 Credits
How has the use of communication technologies changed the nature of organizational work and individual interactions? This course will explore the changing nature of presence with the use and diffusion of communication technologies and their impact on how organizations and individuals interact. We examine theory, practical applications, key scholars, and current empirical research. There is a heavy focus on using case studies that provide context for learning how organizations and individuals are using communication technologies to frame messages. In addition to the core workplace technology tools covered in the class, each student will examine a specific workplace technology and choose an organization and follow its social media strategy for the course. Finally, as a class we will contribute to a larger study of multicommunication and its impact on organizations.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6039 Digital Politics Book Club 3 Credits
This course attempts to cover some of the many topics within the broad realm of digital politics. The focus will be on technology, communication, and politics writ large, but we will cover a wide variety of topics, including computational propaganda, political protest, online harassment, data journalism, algorithms, and digital politics in different political contexts. You will not become an expert on any given topic by completing this class, but it will give you a sense of the many ways in which digital technology might be both affected by and affecting the political world(s) in which we live.As the title suggests, the course will be run like a book club. We will read a book each week, and meet to discuss major themes, criticisms, and takeaways. As the semester goes on, we will draw connections between the books, culminating in writing a book review of at least two of the books.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6040 CompetitionRegulation in Tech 3 Credits
This course equips students to identify and articulate the impacts of large tech firms and assess the best policy tool for regulation. The first section introduces American antitrust laws and examines the evolution of the application of these laws. The next section reviews the 116th United States Congress's investigation of four major tech firms: Facebook, Google, Apple, and Amazon. The course ends with considering a series of issue areas as they intersect with antitrust to inform our understanding of the modern antitrust discourse. The issue areas will include both traditional and "nontraditional" topics of tech policy. Throughout this course, we will practice communicating complicated antitrust policies for non-expert audiences.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6041 AI Policy 3 Credits
New artificial intelligence systems that mimic and surpass human cognitive activity pose novel and profound ethical challenges. The purpose of this course is to give students an understanding of these current challenges and to provide them with the tools they will need to navigate the future controversies as the AI technologies and applications evolve.

The course starts with an overview of artificial intelligence and its latest manifestations - generative AI and chatbots like ChatGPT. After a review of actual and proposed legal systems aimed at addressing the ethical and policy challenges of AI, the course then focuses on current active policy controversies including fairness, accountability and transparency, copyright and competition and national security and open-source models. The second section of the course focuses more narrowly on policy issues as they arise in AI use cases, including predictive scoring systems for credit granting and criminal justice, facial recognition, health care, autonomous vehicles and autonomous weapons. The final section deals with more speculative future questions, including how humans can find meaning in life when robots can do all the work and outperform humans in all fields; whether AI systems can achieve consciousness, independent agency and moral status; whether these systems could become superintelligent and create an existential risk to humanity; whether humans should merge with AI systems to overcome their biological limitations to become transhuman. The course will involve a constant interplay of theoretical reflection and practical problem-solving.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6042 Art and Media Interfaced 3 Credits
We experience art and popular media genres today in many contexts and with multiple kinds of interfaces and mediations (physical, technical, conceptual, cultural, ideological, and institutional). This course will provide a multi- and inter-interdisciplinary approach to understanding visual art, photography, film, and other media in our contemporary context of genres, technologies, and institutions of mediation. We will build an interdisciplinary knowledge base that draws from semiotics, the design principles of computing technologies, art historical and social historical methods, and institutional theory for approaching way to understand how art is mediated and constructed as a cultural category or object. As unifying and discovery principles, we will expand four main conceptual metaphors: interface, medium, networks and nodes, and de-blackboxing.Using the key concepts of interface and medium, we will recover deeper continuities in our key ideas about representation and transmission of cultural genres and artefacts. When we expand the cluster of concepts for our notions of "interface" and "medium," we find that museums and artworks themselves function as interfaces to the larger systems of meanings, values, and social relations that make them possible and interpretable. Any artwork interpreted as such is first an interface to the system of meaning and genres of representation within which it is developed and into which it is received and understood.By the end of the course, students will have gained the ability to interpret, explain, and research artworks, artists, and art concepts in the interpretive contexts in which we receive them, and explain the functions of interpretive interfaces in their institutional, cultural, and technically mediated modes.Case Studies in Washington Museums: COVID Safety and Online ConsiderationsDepending on the health and safety policies for visiting DC museums, we will build many course units on visiting and studying first-hand curated exhibitions in museums as case studies to apply the methods in the course. We will also study the online and virtual interfaces and designed contexts for presenting and interpreting artworks. In both "interface" modes (physical institutional contexts and online presentations) the museum case studies will open up the role of institutions, cultural interpretive contexts, and technologies for mediating and transmitting forms of cultural artefacts. With historical and conceptual background developed in the course, we will use artworks and artefacts in their museum contexts as cases for developing research questions and applying theory and methods for in-depth interpretation and analysis. Students will develop their own research projects based on artworks, photography, and other artefacts in Washington area museums, whether by visiting them personally and/or by presentation in "virtual museum" interfaces.Course OutcomesStudents will learn the main interdisciplinary methods for interpreting art and media in the systems of genres, material forms, and technologies in which they are developed and received. With a deeper understanding of what an interface and medium are and can be (both conceptually and technically), students will not only be equipped to analyze current and past technologies of mediation and representation, but will understand how to apply this knowledge to the design of interpretive frameworks for any kind of cultural artefact or medium. This knowledge base and practice in designing an interface will also equip students to participate in ongoing research, critique, and implementation of technical and institutional interfaces for enabling cultural knowledge and the transmission of the cultural heritage.GradingGrades will be based on weekly writing assignments, class participation, and group projects (50%), and a final research project (50).
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 6043 Prod Devt in New Digital Age 3 Credits
This course provides a structured approach for developing products in today's complex digital landscape, equipping students with the skills and knowledge needed to transform innovative ideas into successful market offerings. Emphasizing interdisciplinary problem-solving, the course explores the product planning and development cycle, from concept ideation to market launch.

Students will examine core components of a product plan, including product definition, target market analysis, competitive research, financial modeling, business case development, and exit strategies. In addition, the course covers emerging developments such as Agile Methodologies, AI-driven product development, crowdfunding, and the role of social media in product ideation and market validation. Through a combination of lectures, case studies, and hands-on exercises, students will gain practical experience in developing a comprehensive product plan for a new product of their own choosing. Assignments and in-class presentations will reinforce key concepts, encouraging students to refine their ideas through peer feedback and expert insights. By the end of the course, students will have a deep understanding of contemporary and evolving product development practices and be prepared to contribute effectively to the creation and launch of innovative products.

Learning Objectives: Upon completing this course, students will:
Master the fundamentals of product development: Learn how to construct a robust product plan, including market analysis, competitive research, financial projections, and go-to-market strategies. # Adopt a multidisciplinary approach: Understand the diverse skill sets and collaborative efforts required for successful product development and management. # Enhance critical thinking and analytical skills: Evaluate market trends, identify target audiences, and assess risks and opportunities in product development. # Leverage contemporary and emerging tools and methodologies: Explore Agile development, AI integration, digital communication strategies, and crowdfunding techniques in the product development process. # Gain hands-on experience: Develop and present a comprehensive product plan, applying strategic planning, market research, and financial analysis. # Refine communication skills: Present ideas persuasively, receive and incorporate feedback, and engage in constructive discussions to refine product concepts.

This course is designed for students interested in product management, entrepreneurship, and innovation, providing them with the critical frameworks and skills needed to navigate the evolving world of product development.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6044 Digital Presnce Strat Persuas 3 Credits
In this course, based on theories of persuasion and narrative, students will use the language of new media to present their academic and professional identit(ies). Each student will develop a rich, outward-facing digital presence that will reflect his or her growth, learning, and expertise in ways designed to appeal to identified stakeholders. Students will focus on three questions :“What’s my story?” (constructing narratives of professional and academic development and achievement); “What’s my story for others?” (crafting a narrative that’s compelling for potential employers); and “What’s my story in new media?” (retelling a narrative using new media language). The course will combine theory and practice and focus on integrating an understanding of communication with the ability to create effective messages about yourself and your expertise.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6045 Intercultural Communication 3 Credits
In today's interconnected world, mastering intercultural communication is essential for any aspiring leader. This course equips students with the tools to navigate and thrive in online and offline professional settings. Through in-depth studies of various cultures, case studies, and practical analysis of communication styles, students will gain insights into the subtle nuances that influence interactions across cultural boundaries. This course offers the skills to build strong relationships, avoid costly misunderstandings, and effectively succeed working on teams or projects both online and face-to-face to bridge the cultural divide. Working collaboratively, we will synthesize information about cultures, customs, ways of thinking, social norms, and habits across multicultural and multilingual global and digital environments. Students will examine individually through four reflection projects and discussion board forums as well as in teams through an Intercultural Book Club and final project, how cultural differences in communication styles, conflict resolution approaches, and hierarchical expectations challenge our fundamental assumptions about interpersonal relationships across various contexts. The first reflection begins by analyzing students' own positionality and intersectionality, providing a foundation for understanding diverse cultural perspectives. Students will then investigate the rules governing cross-cultural interactions in both physical and virtual spaces, exploring how people provide feedback, plan, and make decisions. Key areas of focus include: 1. Applying intercultural communication concepts to both in-person and digital interactions 2. Critically analyzing the influence of culture on communication practices in offline and online environments 3. Evaluating human interaction across cultures in face-to-face settings and through digital media 4. Understanding how cultural norms translate between physical and virtual communication spaces. Students will explore how in-person interactions and digital tools can bridge cultural and linguistic differences, fostering mutual understanding. They will also examine emerging trends in intercultural communication, preparing them to function effectively in diverse global contexts. Topics include cultural adaptation and acculturation, verbal and nonverbal communication across cultures, intercultural conflict and resolution, globalization and cultural convergence, digital communication and linguistic identity, artificial intelligence and intercultural communication, intercultural communication in virtual workplaces, and health communication across cultures. By the end of the course, students will be equipped to: # Analyze and navigate the complexities of intercultural communication in both face-to-face and digital landscapes # Develop strategies for effective communication across cultures in various mediums # Understand the interplay between traditional and digital communication practices in intercultural settings # Enhance their ability to build relationships, influence action, and motivate diverse teams in global and digital contexts This course is essential for students preparing to work in our interconnected world, where the ability to communicate effectively across cultural boundaries —both in person and online—is critical for success in any intercultural or multinational endeavor.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 6046 Unlocking Web3 Policy 3 Credits
Can you actually purchase the constitution from a DAO? Are we all going to live in the metaverse? And what is the deal with Bored Apes? This is all part of what crypto experts call Web3, a term used by many, but often misunderstood. It promises a new iteration of the World Wide Web, which is based on decentralization, blockchain, and token-based economics. Evangelists of this new web-revolution promise this new internet will democratize the way we interact with everything from domain names to ownership. But most importantly: the promise of online privacy is unencumbered by corporate gatekeepers. But is this even possible? This course will discuss the evolution of Web3 from the Satoshi genesis block to decentralized finance. We will break down core concepts in cryptocurrency and explore emerging issues like NFTs, DAOs, and decentralized storage. While Web3 appears to be unique, it still needs to interact with standing laws in intellectual property, financial services, and even content moderation. Web3 promises to bring the internet back to its roots, what is old is new again, and we will explore core concepts in the field to distinguish between fact and fud.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a program in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6047 De-blackboxing ChineseInternet 3 Credits
The global Internet currently exists in a divided state. Here in the West, social media networks like Facebook and Twitter dominate and the power of Google, YouTube, and other popular tech products shapes our lives and our perceptions. Although these Silicon Valley companies have international reach, there is one huge market that does not fully embrace their technologies: China. For a variety of social and political reasons, China has decided to create its own unique online environment. This course will outline and explore the construction, trends, and activities of the Chinese Internet. We will begin with a detailed overview of modern Chinese history (20th-21st centuries) and then examine the factors contributing to key websites, social media networks, and other widely-used platforms. From this, students will gain a greater understanding and valuable research skills related to modern China, its motivations, and its global impact in a digitally-driven world.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a program in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6048 Game/Simulation Prog in Unity 3 Credits
This course will engage computer game development at both critical and practical levels. At the theoretical level, this course will examine games as an interdisciplinary boundary object to be critiqued from a variety of perspectives. Class time will typically begin with a 30-45 minute lecture on a topic in a related discipline that could range from the purely functional (how to organize assets in your workflow) to the technical (how does collision detection work?) to the theoretical (what do games have in common with the 'curiosity cabinets' of the Renaissance?). The remainder of class time will be devoted to questions, demonstrations, and tutorial exercises. Students will be required to demonstrate steady progress in the development of Unity assets, real world simulations, and games, by hitting agreed-upon development milestones. Grades will be given based on the complexity of the tasks achieved and overall progress in understanding and utilizing the development pipeline. The course will be directed toward beginning students with some programming experience, while advanced students with more experience will be allowed to work ahead. Students can expect: · to write C# scripts that govern the behavior of characters and objects in a virtual environment. · to import assets such as audio, video, 2D and 3D models into games · to test and iteratively refine gameplay · to justify their design decisions by referencing a critical-historical context The Unity development environment is an industry standard game development platform that allows game makers to deploy games on a wide range of devices and media including mobile, web, and VR. Unity is free for students and students will be expected to use and maintain their own Unity installation (computers will not be provided). Because of the compressed summer schedule, students should expect to commit a minimum of two hours per day outside of class time to complete assignments.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a program in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6049 Utopia/Dystopia/Narrative/Tech 3 Credits
Over the course of the past two decades, the internet and digital technologies have been positioned as variously solving and causing any number of the world's major social, political and economic crises. While the pendulum of positive and negative public perceptions about the impact of technology has always swung wildly in various cycles of illusion and disillusion, the pace with which these profound changes takes place has sped up to the point of near-incomprehensible oscillations. At the same time, it has never been more important to make sense of these fluctuations and locate some sense of truth within the tensions of promise and peril that underscore so many of our society's techno-utopian and dystopian fantasies, dreams and fears. If we are to approach any kind of research, design, policymaking or public communications projects, we first need to understand the rhetorical spaces in which our imaginations play and process framing and fracture. It is from this foundation that we can then begin to understand our own positionality in complex sociotechnical systems. With grounding in Adorno and Horkheimer's theories about dialectical relationships driving public perceptions of art, politics, persuasion and culture, this course will examine a range of technological tensions that have been taken up by creative works of writing, filmmaking, music, activism and immersive theater. Each session will focus on one recurrent narrative theme in which the role of technology has tended toward utopian or dystopian visions in response to current events, economic incentives or sociopolitical factors. While some aspects of the course will be co-created with students, significant discussion and critique will be devoted to narratives about digital equity, privacy and surveillance, youth and technology, health and wellbeing and intellectual property. Students should expect to come to each class having completed core assignments of reading, watching and/or listening to the material of our inquiry, while also contributing some form of writing and peer review either before or during our meeting. The structure of the class will support a collaborative community of practice that each student should approach with curiosity, generosity and a commitment to contributing what is expected of each class member. This course will also include guest speakers who will further enrich our discussions and help students understand how the critical theory and analysis work we do in class can translate into practice in a range of fields within and outside of academia.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 6050 The Mediated State 3 Credits
The increasingly technologically connected world has seen a rise of multinational companies that can reach across borders and exercise influence and power to affect governance, social fabrics, identity, cognition, and even our sense of time and space. The purpose of this course is to better understand the role of information in this environment and how unique information levers allow for the manipulation of power at every level of society to achieve desired outcomes. We will extensively analyze how information has disrupted traditional relationships between individuals, groups, companies, governments, and states. This course will provide common terminology and frameworks to analyze and discuss the uses of information to exercise power within national governments and commercial entities. Students will have the opportunity to read thematic texts, case studies, policy, and theory.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6051 Identifying Strategc Perspectv 3 Credits
What determines whether a narrative, organization, or technology will survive the evolutionary cycle of social consumption? When pressed against the friction of conflict, what is the model for success? In an information-driven society, the strategic perspective of a single decision-maker can have far-reaching effects beyond the horizon of their organizational objectives. This course will demonstrate that strategic perspective is central to success. We will deconstruct historical examples to understand the context and internal factors that led to the perspective of decision-makers in culture, technology, and business. Students will evaluate case studies of successes and failures, using a decision-making framework to analyze the outlook of decision-makers. Weekly interaction will provide an in-depth discussion of contemporary campaign messaging, the spread and absorption of culture, and technological adaptation. As a class, we will demonstrate how perspective determines the strategic narrative and directly ties to an investment in or squandering of long-term viability. In this course, assignments will examine: # How communication becomes infinite, and what is needed to advance communication beyond the limits of nationalist borders. # A preferred sociological framework, providing case studies depicting finite and/or infinite engagement. # How technology advances engagement and is adopted by societies, and what predicts the success of new technology. This course will use a highly accessible reading list, a musical, weekly discussion, and periodic essays to analyze and debate the root of strategic perspective and technological change, seeking to answer whether a single organization can infinitely survive, or even thrive.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 6053 Info Human Cognition 3 Credits
Why do we make seemingly illogical decisions? Why do we get overwhelmed by complexity? In theory, technology is supposed to make our lives more efficient, but often the outcome is the opposite. This course will explore the most fundamental principles of information and organic information processing. The readings and discussion will cover the subject of humans and societies as networked sensing and sense-making organisms. This course seeks to consolidate a vocabulary and a framework for students to analyze systems of influence and decisions. Discussions and assignments will draw parallels and differences between technology-enabled and organic perception models. Ultimately students will examine context-based technology selection as it facilitates human cognitive processes.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a program in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6054 Organzd Society, Organzd State 3 Credits
Technology is shrinking the world, even as the information domain grows. How does this contradiction impact the world today? Has human thinking changed since the inception of the internet, the information age, and modern computing? This course will have students separate the context of the environment from geopolitics, reviewing state structures and human cognition in parallel to identify the origins of social identity and the basis of nationalism. Looking at nationalism as the thinnest layer of connection that binds people to pursue a combined objective, students will learn about shared intentionality and how it propels group decision-making. Though modern informational tools provide a kaleidoscope of identities and influences, live experiences dominate everyday influences. Or do they? How rooted in social psychology are in-person or online engagements? At what level do concepts like self or group manifest in a democratized arena? If the British crown gave American colonists royal titles or accepted an Indian aristocracy, would the United States exist, and would India still fall under British rule? This course will pursue the context to answer questions like these in four instructional blocks. 1. The social context for government control. 2. Constructs for categorizing society. 3. Analysis of the ownership and structured use of land. 4. Ecology, geography, and geopolitics, and the impacts of forced order. Each instructional block will build on the previous, developing the understanding required to reduce societies to orderly state schemes, identify where and how to draw the lines that develop nations, and categorize populations. In addition to discourse-centric class periods, students will provide written analyses, organizational charts, and weekly journals about weekly or lesson block topics. Students will explore order and complexity to better understand their environment, physically and cognitively, and how to identify and categorize a nation's national borders. Students will leave this course with an understanding of how to separate the metaphysical nation from a state's geography, the social influence of nationalism on the development of a nation-state, and the effects of homogeneity on societal progress.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 6055 SocMedia: Multilingual Use 3 Credits
This course will examine the cross-cultural implications of social media use by multilingual users. An important focus of the class will be to understand the social roles of popular social media exploring social networking sites, image-based sites, streaming platforms, discussion forums, and community platforms such as Twitter, Facebook, WhatsApp, WeChat. We will view these international community spaces as they overlap onto English language spaces. Through weekly review of research studies, we will shed light on engagement practices, looking at the motivational forces that drive multilingual daily social media engagement with mainstream culture. We will also discuss the challenges for multilinguals in online social networks as a result of a different Internet depending on the language used which ultimately hinders capability for sharing and learning. Finally, we will look at language practices of these multilingual users such as the mixing phenomena in written online text such as “code-switching”, the practice of alternating between two or more language or varieties of language in conversation, and “translanguaging”, when a multilingual person’s full linguistic repertoire is used instead of trying to keep narrowly focused on a single language. As observers and learners, we will expand our understanding of heritage, second and third language speakers’ language practices as they negotiate their experiences with their social networks. Course objectives will be to become knowledgeable about key research on this topic, including relevant theories and methods through the research we review, develop skills in analyzing and interpreting language use on social media from the optic of a multilingual user, gain experience in collecting and analyzing examples from social media where cultures and languages intersect, improve skills of engagement in academic dialogue both written (reflection papers) and spoken (small group work and presentations).
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 6056 Writing for Business Marketing 3 Credits
Writing for sales, marketing, and communication requires knowledge of techniques for both digital and traditional media. This class will equip students with the skills necessary to write creative marketing stories, including scripts for video and audio; “blogs” and posts for a variety of targeted social media platforms; press releases, internal communications, and traditional forms of advertising copy, invitations, and billboards.

Starting with “boilerplate” storyboarding ideas, we will develop pilot marketing campaigns that can be adapted for multi-media use. Students will learn how to target specific audiences, choose the appropriate media channels and methods to reach them and write innovatively to make specific messages and campaigns impactful.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a program in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 6058 Global Cyber Policy 3 Credits
Control of digital infrastructure has become a proxy for political power, mediating so much of importance in society from national security and the global economy to individual human rights and the very nature of truth. Public policy at these cyber control points is technically complex and carried out by a combination of governments, technical design communities, global coordinating institutions, and the rising power of private actors such as network operators and social media companies. Global Cyber Policy introduces students to the major digital flashpoints of the contemporary era. Many of these debates embed inherent ethical conflicts: speech rights versus content moderation; individual privacy versus government surveillance; human security versus rapid innovation; national sovereignty versus cross-border technology; and strong encryption of critical infrastructure versus weaker security for law enforcement access and intelligence. Students will gain an evidence-based understanding of the debates, technologies, and stakes of the global cyber policy flashpoints constructing our modern society.

Learning Objectives

1. Technical Understanding. Understand the technical systems of infrastructure underlying cyber policy and Internet governance, including the Domain Name System, public key cryptography, VPNs, Internet protocols, cloud computing, network interconnection and access, blockchain, and emerging technologies.

2. Political and Cultural Contextualization. Analyze how cultural contexts and geopolitical struggles reciprocally shape systems of Internet governance and broader cyber policy discourses.

3. Policy Analysis of Cyber Flashpoints. Become well-versed in contemporary cyber policy debates, identifying the issues at stake, explaining alternatives, and articulating stakeholder positions.

4. Evidence-based, Ethical Stance on Contemporary Problems. Students will develop their own evidence-based, ethical positions on difficult cyber policy questions.
Level: Graduate, Undergraduate
Course attribute:
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a major in E or Comp Sci, Ethics, Society.
Enrollment is limited to students with a concentration in E or Tech, Ethics Society.
Enrollment is limited to students with a minor in E or Tech, Ethics Society.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 6059 Technology Impact Lab 3 Credits
The Tech Impact Lab course is a collaboration between the Georgetown Law Center and the Communication, Culture, & Technology department. In this innovative interdisciplinary course, students from across Georgetown work together in teams on high-impact projects aimed at bending the path of technological progress toward human flourishing, justice, and equality, and away from suffering, injustice, and bias. Students in the course will consult with and serve partners such as nonprofit organizations, government agencies, and individuals, selected to maximize both pedagogical value and societal and individual impact.

This will be an advanced and intensive course. Students will work closely in teams to conduct the research requested by our project partners, as shaped and elaborated by the professors. All students will produce a work-product portfolio which will require the student teams to reflect upon and write clearly about all of the following: (a) a concise summary of their findings; (b) a description of the history of prior work by others relating to the question explored; (c) a reflection on the impact of the findings for the work of their partner organization; (d) a reflection on the impact of the findings for the field in general; (e) a list of potential future follow-up studies.

This course requires an application and instructor approval. Please contact Prof. Meg Jones (Meg.Jones@georgetown.edu). As a committee, we select students based on their tech policy expertise, professional experience, technical skills, passion, and other relevant backgrounds in order to create unique interdisciplinary teams. We don't expect students to have all of these and will assemble interdisciplinary teams of complementary students.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to students with a program in Commun, Culture Technology.

Enrollment limited to students in the LW-MLTH-LTEC program.

Enrollment is limited to Graduate level students.

CCTP 6060 Installation Exhibit Design 3 Credits
This hands-on workshop practicum will design and install static, interactive, and multimedia exhibit displays. Working in collaboration with The Center for Social Justice and Lauinger Library, students will mount, publicize, and organize an exhibit celebrating 15 years of Georgetown's "Teach the Speech" initiative. Each year, "Teach the Speech" asks Georgetown faculty, staff, and students across campuses and schools to read and reflect on one of Rev. Dr. Martin Luther King's speeches. This course will review and curate memories, documents, and Georgetown holdings related to the first fifteen years of the initiative. Working across a shared archive of exhibition material, we will uncover novel connections and plan narratives that guide visitor interaction. Students will also edit video footage and design interactive experiences for the library's visualization wall. Exhibition materials include archival documents, video recordings, and creative responses to Dr. Martin Luther King Jr.'s speeches. Students will explore and analyze these materials, with the aim of guiding visitors to appreciate how "Teach the Speech" has elevated and celebrated Dr. King's legacy on the Georgetown campus. The course develops academic and profession skills in archival research, curatorial analysis, film editing, creative digital making, event publicity, and visitor experience.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 6070 Cybersecurity:Law,SocPractice 3 Credits
This course investigates the multifaceted realm of cybersecurity, encompassing its legal, technical, economic, business, and societal dimensions. Students will gain a comprehensive understanding of the complex challenges posed by cyber threats and the legal frameworks designed to address them. Students will be challenged to think about cybersecurity from a transdisciplinary perspective, making connections in business and government policy, national security and society, and the law and culture. Students will also learn practical skills to assess and understand risk and consider the tradeoffs and equities when making business and policy decisions around cybersecurity. Objectives: - Cybersecurity Fundamentals: Explore the technical foundations of cybersecurity, including threats, vulnerabilities, and risk management strategies. - Cybersecurity Law and Policy: Analyze the domestic and international legal frameworks governing cybersecurity, including data privacy laws and cybercrime legislation. - Societal Impact of Cybersecurity: Examine the societal implications of cybersecurity incidents and threats on individuals, groups, and nations. - Practical Implementation: Gain insights into practical cybersecurity programs in business, governments, and organizations, including risk management, incident response, and compliance with industry standards and regulations. - Case Studies and Real-World Applications: Engage with real-world case studies and industry reports to understand the practical application of cybersecurity principles and legal frameworks. Upon completion of this course, students will be able to: - Analyze Cybersecurity Threats: Critically assess the legal, ethical, and societal implications of cyber threats and understand the technical measures to mitigate them. - Navigate Cybersecurity Law: Effectively navigate the complex legal landscape of cybersecurity, including domestic and international laws, regulations, and enforcement mechanisms. - Develop Cybersecurity Strategies: Propose and evaluate cybersecurity strategies for organizations, considering legal compliance, risk management, and practical implementation. - Engage in Ethical Decision-Making: Make informed decisions on cybersecurity issues, considering ethical considerations, privacy rights, and the greater societal impact of technology.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

Enrollment limited to students in the Commun, Culture Technology department.

CCTP 6071 Cybersecurity Society 3 Credits
Cybersecurity is a great human rights issue of our time, necessary for everything from privacy and personal safety to national security and global economy stability. What happens online no longer stays online. Ransomware attacks on hospitals prevent people from receiving health care. Disruptions of digital communication systems are now disruptions of our food supply and energy systems. Solutions are available to implement, but marked by conflicting values and political challenges, all in the context of complex, constantly changing technologies. Cybersecurity attacks are as human as they are technical. Social engineering techniques exploit human emotions to trick people, sometimes with acute political, personal, or financial consequences. Ethical questions abound, such as the conditions under which security researchers infiltrate systems, the choices whistleblowers make about disclosing conditions of government surveillance, government policies about when to disclose a discovered vulnerability to a technology company to protect critical infrastructure versus withholding the knowledge to enable cyber weapons, and the legality and ethics of companies hacking back as part of defending systems.

Students in the Cybersecurity and Society course will gain: 1. Sociotechnical Thinking - Explore cybersecurity entanglements with society through real life case studies and theoretical frameworks from Science & Technology Studies (STS); 2. Topical Cybersecurity Knowledge - Learn about the foundational principles, frameworks, technical infrastructures, and institutions at the heart of cybersecurity solutions; 3. Ethical Stances - Analyze the complex ethical dilemmas at the core of most cybersecurity governance debates, such as battles over encryption that mediate between cyber offense and law enforcement versus cyber defense and critical infrastructure protection; and 4. A Technological Mindset for analyzing complex and emerging technologies - such as quantum computing, blockchain, artificial intelligence, cyber-brain interfaces, and the Internet of Things, that are creating new cybersecurity and society entanglements.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment limited to students in the Commun, Culture Technology department.

CCTP 6072 Design, Prototype, Build 3 Credits
"Design, Prototype, Build" is a hands-on, project-based course that introduces students to the full process of designing, prototyping, and fabricating physical objects by blending traditional craftsmanship with digital fabrication techniques. Students will gain practical experience with tools such as 3D printers, laser cutters, woodworking tools, and more while making extensive use of the Maker Hub. The course emphasizes iterative design, encouraging students to refine their ideas through continuous prototyping and feedback. Deliverables include two major projects: the Automaton Midterm Project, where students design and build a mechanical moving sculpture using a combination of traditional and digital tools, and a Final Independent Project, where students propose and execute their own design-to-build project that incorporates multiple fabrication techniques. In addition, students will complete weekly making projects designed to reinforce in-class activities and develop core skills in technical drawing, material exploration, and machine operation. By the end of the course, students will have a portfolio of completed projects, a working knowledge of key fabrication tools, and the confidence to bring their ideas to life. No prior experience is required - just a willingness to explore, experiment, and create!
Level: Graduate
Grading: Main Campus (UGrad, Grad)

CCTP 6073 Hollywood Studio System 3 Credits
This course examines the central industrial, technological, aesthetic, and ideological developments in the history of classical Hollywood cinema. Given the global prominence and influence of Hollywood cinema, much of the course will be focused on the establishment of the Hollywood studio system and its many transformations over the first half of the 20th century. We will begin with an analysis of the origins of the medium and its place in American culture at the turn-of-the-century. We will then examine the development of narrative cinematic standards and the rise and consolidation of the Hollywood studio system, paying close attention to genre, stardom, marketing, and popular reception from the 1920s to the 1960s. In addition to key technological developments such as the coming of sound and the emergence of widescreen cinema, we will also explore social anxieties about cinema's effects, the institution of the Production Code, and the complex relationship of Hollywood film to key social crises (The Depression, WWII, McCarthyism, Civil Rights) of the period.
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)

CCTP 6074 Documentary Film Video 3 Credits
Documentary moving images are often assumed to tell truths about the world we inhabit, but what those truths might be and how we might ascertain them leads us to important questions: do documentaries represent the world as “it really is”? Whose version of the world do documentary images and sounds claim to represent? How do non-fiction moving images use technologies—of the camera, the projector, the video monitor, the personal computer, the smart phone—to record and represent events? Cannot those same technologies be used to shape images for the purposes of the film-maker or videographer? In this regard, might not every ostensibly ‘non-fiction’ image be capable of an instrumental use—be it aesthetic, political, social—and how in this sense does the documentary become the most strategic—and most powerful—form of mediation? This course examines the documentary image in its historical, theoretical, political and aesthetic dimensions in order to address these questions. It begins by examining many of the canonical texts of the documentary and the historical effects of these films and then moves to consider the recent emergence of new media forms that respond to the claims of the documentary, media such as mockumentaries and reality television programming.
Level: Graduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 7949 Tutorial:CCTP 1-6 Credits
Level: Graduate, Undergraduate
Grading: Main Campus (UGrad, Grad)
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 7990 Thesis Colloquium 3-6 Credits
Level: Graduate
Grading: Pass/Fail Default
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 7996 Thesis Seminar 3-6 Credits
This course is designed to guide students engaged in the research and writing of an M.A. thesis project towards the successful completion and defense of their thesis. All students who are approved to write a thesis for completion of the CCT degree are required to enroll in the thesis seminar, and the topics of the course include: research design and planning, the research and writing of a literature review, chapter design, the writing of introductory and concluding sections, and the design of a final thesis defense presentation. Department approval required.
Level: Graduate
Grading: Pass/Fail Default
Course registration restrictions:
Enrollment is limited to students with a program in Commun, Culture Technology.

Enrollment is limited to Graduate level students.

CCTP 9991 Continuous Registration
Level: Graduate
Grading: No Grade
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 9992 Continuous Registration
Level: Graduate
Grading: No Grade
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 9993 Continuous Registration
The intent of this course is to establish a practical grounding of those theories that students were exposed to while at CCT. The course will be comprised of coursework students in their last semester who hold an internship position or employment with an organization doing work that relates to the CCT curriculum. Students meet weekly to discuss how the practices of their outside work relate to the many theoretical constructs introduced through the multiple disciplines that make up our program. We will address the utilization of the theoretical outside the academy as well as those issues that arise when the practical conflicts with the theoretical. Furthermore, participants will evaluate the relationship of their internship/ work-experience, and studies, with their career goals. Student evaluation is based on their performance in the internship, presentations to the class regarding their work experiences, participation in the discussion of other’s presentations, and a final paper approximately twenty pages in length. To register for the course: 1) Student must find appropriate internship. 2) Internship must be 80% substantive work, and students should work between 14-18 hours per week. Internships can be paid. 3) Student must provide offer letter from internship supervisor, detailing the work to be done, hours worked per week, and duration of the internship. Professor must approve internship. 4) CCT will need to sign a contract with internship organization afterwards. 5) CCT will then register students for this course no later than Jan. 10, 2007.
Level: Graduate
Grading: No Grade
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 9994 Continuous Registration
The goal of this course is to provide you with the essential skills and knowledge to be an intelligent consumer and practitioner of research. On the one hand, today's high tech culture and economy requires that you can consume research; that is, have the ability to analyze empirical data and thoughtfully appraise the analyses of others. Research is an integral part of everyday problem-solving and decision-making. Additionally, this graduate program is going to ask you to engage in the research process. To understand and participate in the growth of a science, no matter how modestly, you must have a working knowledge of methods and procedures. When done properly research is exciting, creative, fun and personally and scientifically rewarding. To this end, our course will introduce you to a wide array of research tools (surveys, experiments, content analysis and field research) available to social scientists.
Level: Graduate
Grading: No Grade
Course registration restrictions:
Enrollment is limited to Graduate level students.

CCTP 9999 Thesis Research 0 or 1 Credits
Level: Graduate, Undergraduate
Grading: No Grade
Course registration restrictions:
Enrollment is limited to Graduate level students.