

# Stanford University

## Department of Communication

### Stanford University Courses - 2016/17 Approved For Communication Elective Credit

#### Communication Majors and Minors

Communication majors may take 10 units outside of the department. Minors may take 5 units outside of the department. All outside electives must be taken for a letter grade if offered. If a course also meets a GER or WAYS requirement, it may still be used towards the major or minor. However, a course may not be used for two majors or a major and a minor. It is the student's responsibility to determine scheduling of these courses. Not all of the following courses are offered every year.

Taking SOC 180A instead of COMM 106 will count towards the units outside of the department.

Majors and minors have the option to petition approval for a course that is not listed below, but are restricted to one successful petition for the duration of their undergraduate career. To petition, please email the syllabus to the Student Services Manager at [comm-studentservices@lists.stanford.edu](mailto:comm-studentservices@lists.stanford.edu).

#### Communication Cotermin Students, Media Studies Track

Coterm students following the media studies track may count up to 9 units outside of the department towards the 45 units for their MA. They may also petition their academic advisor for approval for coursework not listed below. There are no restrictions on how many times they may petition.

Units earned in courses below the 100 level may not be counted towards the minimum unit requirement for the master's degree.

Taking SOC 280A instead of COMM 106 or 206 will count towards the units outside of the department.

#### Communication Cotermin Students, Journalism Track

Coterm students following the journalism track must adhere to the journalism MA curriculum and require approval from their academic advisor for any course outside of the department, including those listed below.

---

## COURSES

### Accepted as COMM 106 alternative

#### SOC 180A/280A: Foundations of Social Research

Formulating a research question, developing hypotheses, probability and non-probability sampling, developing valid and reliable measures, qualitative and quantitative data, choosing research design and data collection methods, challenges of making causal inference, and criteria for evaluating the quality of social research. Emphasis is on how social research is done, rather than application of different methods. Limited enrollment; preference to Sociology and Urban Studies majors, and Sociology coterminals. Terms: Win | Units: 4 | UG Reqs: GER:DB-SocSci, WAY-SI | Grading: Letter (ABCD/NP)

## Accepted as STATS 60/160 prereq alternatives

### **CS 109: Introduction to Probability for Computer Scientists**

Topics include: counting and combinatorics, random variables, conditional probability, independence, distributions, expectation, point estimation, and limit theorems. Applications of probability in computer science including machine learning and the use of probability in the analysis of algorithms. Prerequisites: 103, 106B or X, multivariate calculus at the level of MATH 51 or CME 100 or equivalent. Terms: Win, Spr | Units: 3-5 | UG Reqs: GER:DB-EngrAppSci, WAY-AQR, WAY-FR | Grading: Letter or Credit/No Credit

### **ECON 102A: Introduction to Statistical Methods (Postcalculus) for Social Scientists**

Probabilistic modeling and statistical techniques relevant for economics. Concepts include: probability trees, conditional probability, random variables, discrete and continuous distributions, correlation, central limit theorems, point estimation, hypothesis testing and confidence intervals for both one and two populations. Prerequisite: MATH 20 or MATH 41 or equivalent. Terms: Aut, Win | Units: 5 | UG Reqs: GER:DB-Math, WAY-AQR, WAY-SI | Grading: Letter or Credit/No Credit

### **STATS 110: Statistical Methods in Engineering and the Physical Sciences**

Introduction to statistics for engineers and physical scientists. Topics: descriptive statistics, probability, interval estimation, tests of hypotheses, nonparametric methods, linear regression, analysis of variance, elementary experimental design. Prerequisite: one year of calculus.

Terms: Aut, Sum | Units: 4-5 | UG Reqs: GER:DB-Math, WAY-AQR, WAY-FR | Grading: Letter or Credit/No Credit

### **STATS 116: Theory of Probability**

Probability spaces as models for phenomena with statistical regularity. Discrete spaces (binomial, hypergeometric, Poisson). Continuous spaces (normal, exponential) and densities. Random variables, expectation, independence, conditional probability. Introduction to the laws of large numbers and central limit theorem. Prerequisites: MATH 52 and familiarity with infinite series, or equivalent.

Terms: Aut, Spr, Sum | Units: 3-5 | UG Reqs: GER:DB-Math, WAY-AQR, WAY-FR | Grading: Letter or Credit/No Credit

---

## Accepted as general elective credit

### **AFRICAAM 176B : Documentary Fictions (TAPS 176B) NOT GIVEN IN 2016-17**

More and more of our best fiction, plays, and comics are being created out of documentary practices such as in-depth interviewing, oral histories, and reporting. Novels like Dave Egger's *What is the What* and plays like Anna Deavere Smith's *Let Me Down Easy* act as both witnesses and translators of people's direct experience and push art into social activism in new ways. This course takes a close look at a diverse range of these contemporary works and explores how to adopt their research and aesthetic strategies for work of your own. We start with a brief look back at the recent origins of this trend and look at excerpts from forerunners such as Richard Wright, Truman Capote, and Bertolt Brecht. We then turn to the rise of documentary fictions in the last few decades and read works by Eggers, Adam Johnson, G.B. Tran, Maria Hummel, and Daniel Alarcon and watch performances by the Tectonic Theater Project and Elevator Repair Service. Students write one analytic essay and then conduct or study interviews to design a work of their own. The course will feature class visits by a number of our authors and a special half-day workshop with Smith.

### **AFRICAST 31/131: Media and Conflict in Africa**

Introduction to the variety of roles played by local and international media in covering conflict situations across the continent in the late 20th- and early 21st-centuries. The objective is to develop a theoretical and empirical understanding of the media as active participants in conflicts, rather than neutral witnesses. How the media in the African context have become tools for propaganda and for encouraging violence, as well as their role in promoting dialogue, peace and reconciliation between communities. These questions are relevant to the context of contemporary Africa where conflicts fueled by ethnic hatred or democratic aspirations have unfolded along with the development of media and communication technologies. Key concepts such as objectivity, impartiality, hate speech, peace journalism, citizen journalism, and cosmopolitanism, to analyze the role played by the media in case studies in Burundi, Cameroon, Egypt, Ethiopia, Kenya, Nigeria, Rwanda and Uganda. A wide variety of material including: readings drawn from a fields such as media and journalism studies, political sciences, anthropology, and postcolonial theory; linguistic, visual, audio, video and multimedia material produced by news media; and films and documentaries.

Terms: Win | Units: 3-5 | UG Reqs: WAY-SI | Grading: Letter or Credit/No Credit

### **AMSTUD 101: American Fiction into Film NOT GIVEN IN 2016-17**

Movies and the fiction that inspires them; power dynamics behind production including historical events, artistic vision, politics, and racial stereotypes. What images of black and white does Hollywood produce to forge a national identity? How do films promote equality between the races? What is lost or gained in film adaptations of books?

**AMSTUD 123X: Politics and Public Policy (POLISCI 102/123, PUBLPOL 101/ 201)**

American political institutions (the Presidency, Congress, and the Court) and political processes (the formation of political attitudes and voting) have for some time now been criticized as inadequate to the task of making modern public policy. Against the backdrop of American culture and political history we examine how public policy has been and is being made. We use theories from Political Science and Economics to assess the state of the American system and the policy making process. We use case studies and lectures to analyze contemporary issues including environmental policy, taxes and spending, gun control, economic growth and inequality and mobility. In some of these issue areas we use comparative data from other countries to see how the U.S. is doing relative to other countries. In addition to class room lecture and discussion, student groups are formed to analyze policy issues of relevance to them. Terms: Win | Units: 4-5 | UG Reqs: GER:DB-SocSci, WAY-SI | Grading: Letter or Credit/No Credit

**AMSTUD 124A: THE AMERICAN WEST (ARTHIST 152, ENGLISH 124, HISTORY 151, POLISCI 124A)**

The American West is characterized by frontier mythology, vast distances, marked aridity, and unique political and economic characteristics. This course integrates several disciplinary perspectives into a comprehensive examination of Western North America: its history, physical geography, climate, literature, art, film, institutions, politics, demography, economy, and continuing policy challenges. Students examine themes fundamental to understanding the region: time, space, water, peoples, and boom and bust cycles. Terms: Spr | Units: 5 | UG Reqs: GER:DB-Hum, GER:EC-AmerCul, WAY-A-II, WAY-SI | Grading: Letter (ABCD/NP)

**AMSTUD 140: Stand Up Comedy and the "Great American Joke" Since 1945 NOT GIVEN IN 2016-17**

Development of American Stand Up Comedy in the context of social and cultural eruptions after 1945, including the Borscht Belt, the Chitlin, Circuit, the Cold War, censorship battles, Civil Rights and other social movements of the 60s and beyond. The artistry of stories, monologues, jokes, impersonations, persona, social satire, scatology, obscenity, riffs, rants, shtick, and more by such artists as Lenny Bruce, Dick Gregory, Richard Pryor, George Carlin, Margaret Cho, Sarah Silverman, Jon Stewart, Stephen Colbert, as well as precursors such as Mark Twain, minstrelsy and vaudeville and related films, TV shows, poems and other manifestations of similar sensibilities and techniques.

**ANTHRO 141B: The Anthropology of Bits and Bytes: Digital Media in the Developing World NOT GIVEN IN 2016-17**

Recent historical developments, including the widespread adoption of the mobile phone across Africa and Southeast Asia, the Arab Spring and the rise of technology sectors in cities such as Nairobi, Bangalore, and Accra, have turned digital technology in the global South into a topic of growing popular interest and increasing scholarly concern. This course attempts to make sense of these developments by interrogating diverse theoretical approaches to digital technology and assessing what these approaches reveal and obscure in specific cases of technology adoption in Africa, Asia, and Latin America. Students will be introduced to an overview of scholarly approaches to digital technology from anthropology, science and technology studies (STS), critical theory, geography, and communications studies. We will analyze the relative utility of these explanations through case studies of specific instances of technological production and/or use. These case studies will be drawn from both secondary texts and primary materials such as social media, digital maps, videos, blogs, and news reports. At the same time, we will examine how digital discourses and practices both draw upon and inform broader issues of context-specific political and cultural importance. Major topics to be discussed include development and the State, civil society and the public sphere, youth culture, gender politics, mobility, and globalization. Students will come away from the course with a strong understanding of the major issues at stake in the increasing digitalization of the global South, and the socio-cultural, political, and technical debates that frame them

**ARTHIST 152: THE AMERICAN WEST (AMSTUD 124A, ENGLISH 124, HISTORY 151, POLISCI 124A)**

The American West is characterized by frontier mythology, vast distances, marked aridity, and unique political and economic characteristics. This course integrates several disciplinary perspectives into a comprehensive examination of Western North America: its history, physical geography, climate, literature, art, film, institutions, politics, demography, economy, and continuing policy challenges. Students examine themes fundamental to understanding the region: time, space, water, peoples, and boom and bust cycles. Terms: Spr | Units: 5 | UG Reqs: GER:DB-Hum, GER:EC-AmerCul, WAY-A-II, WAY-SI | Grading: Letter (ABCD/NP)

**ARTHIST 165A: Fashion Shows: From Lady Godiva to Lady Gaga (ARTHIST 365A, FILMSTUD 165A, FILMSTUD 365A) NOT GIVEN IN 2016-17**

The complex and interdependent relationship between fashion and art. Topics include: the ways in which artists have used fashion in different art forms as a means to convey social status, identity, and other attributes of the wearer; the interplay between fashion designers and various art movements, especially in the 20th century; the place of prints, photography, and the Internet in fashion, in particular how different media shape how clothes are seen and perceived. Texts by Thorstein Veblen, Roland Barthes, Dick Hebdige, and other theorists of fashion.

**ARTHIST 264A: Picturing the Cosmos NOT GIVEN IN 2016-17**

This seminar explores the place of images in how we understand and imagine the universe. The course draws on art, science, and popular culture, and pays particular attention to the ways they inform each other. Examples include: star

maps, science fiction films, appropriated astronomical images, and telescopic views of stars, planets, and nebulae. Using these representations as well as accompanying readings we will discuss the importance of aesthetics for conceptions of the cosmos; the influence of technology on representations; strategies for representing concepts that exceed the limits of human vision; and the ways that views of the universe reflect and shape their cultural context. Open to undergraduates and graduates.

### **ARTHIST 273: Visual Culture of the Arctic (FILMSTUD 273)**

In what ways does contemporary art address the slowly unfolding catastrophes of melting ice and thawing permafrost in the Arctic due to climate change? How might contemporary art and experimental cinema help us come to grips with the emotional disturbance of living amidst the deep-seated changes that are happening in our environment? These are the key questions this course attempts to answer. The first part of the class attempts to outline the complex history of Arctic visual and cultural representations through an interdisciplinary lens. The second part focuses on the more recent artistic and cinematic responses to climate change in the arctic. For their final projects, students will be able to combine analytical writing with creative projects that could take the form of photography, installation art, web-based art, fiction, video or poetry.

Terms: Spr | Units: 5 | Grading: Letter (ABCD/NP)

### **ARTHIST 329: Animation and the Animated Film (FILMSTUD 129)**

The fantasy of an image coming to life is ancient, but not until the cinema was this fantasy actualized. The history of the movies begins with optical toys, and contemporary cinema is dominated by films that rely on computer animation. This course considers the underlying fantasies of animation in art and lit, its phenomenologies, its relation to the uncanny, its status as a pure cinema, and its place in film theory. Different modes of production and style to be explored include realist animation, abstract animation; animistic animation; animated drawings, objects, and puppets; CGI, motion capture, and live/animation hybrids.

Terms: Spr | Units: 4 | Grading: Letter or Credit/No Credit

### **ARTHIST 365A: Fashion Shows: From Lady Godiva to Lady Gaga NOT GIVEN IN 2016-17**

The complex and interdependent relationship between fashion and art. Topics include: the ways in which artists have used fashion in different art forms as a means to convey social status, identity, and other attributes of the wearer; the interplay between fashion designers and various art movements, especially in the 20th century; the place of prints, photography, and the Internet in fashion, in particular how different media shape how clothes are seen and perceived. Texts by Thorstein Veblen, Roland Barthes, Dick Hebdige, and other theorists of fashion.

### **ARTSINST 170: Wandering: video games, performance, philosophy, protest**

What does it mean to be a walking body in a world? What kind of world? What kind of body? This course looks at walking as a performative act and considers 20th and 21st century responses to these questions in philosophy, theater, literature, video games, and protest movements. We will connect the threads between Baudelaire and #Gamergate, Italo Calvino and Journey, the revolution of 1968 and the Occupy movement. We will read digressive texts, grapple with philosophers from Walter Benjamin to Michel de Certeau, play "Walking Simulator" video games, and walk through pedestrian performances. In addition to reading and writing responses to the texts, we will create our own performances and conceptualize our own Walking Sims.

Terms: Spr | Units: 3-5 | Grading: Letter (ABCD/NP)

### **ARTSTUDI 266: Sculptural Screens / Malleable Media**

In this upper level studio course, students will experiment with video and computational outputs embedded in physical scenarios. What new physical formats are made possible by contemporary screen and projection-mapping technologies? How can we make expressive use of LCD screens, pico projectors, i-pad arrays, and LEDs? The class will address the screen as sculptural medium by examining established artists like Nam June Paik, Michael Snow, Tony Oursler, and Pipilotti Rist, as well as exploring emerging contemporary artists tackling this medium. Prerequisites include one of the following: Intro to Digital/Physical Design, Embodied Interfaces, Media Archaeologies, Making it with Arduino, Digital Art 1, Electronic Art or permission of instructor.

Terms: Aut | Units: 4 | Grading: Letter (ABCD/NP)

### **CS 101: Introduction to Computing Principles**

Introduces the essential ideas of computing: data representation, algorithms, programming "code", computer hardware, networking, security, and social issues. Students learn how computers work and what they can do through hands-on exercises. In particular, students will see the capabilities and weaknesses of computer systems so they are not mysterious or intimidating. Course features many small programming exercises, although no prior programming experience is assumed or required. CS101 is not a complete programming course such as CS106A. CS101 is effectively an alternative to CS105. A laptop computer is recommended for the in-class exercises.

Terms: Spr | Units: 3-5 | UG Req: GER:DB-EngrAppSci | Grading: Letter or Credit/No Credit

**CS105: Introduction to Computers**

For non-technical majors. What computers are and how they work. Practical experience in programming. Construction of computer programs and basic design techniques. A survey of Internet technology and the basics of computer hardware. Students in technical fields and students looking to acquire programming skills should take 106A or 106X. Students with prior computer science experience at the level of 106 or above require consent of instructor. Prerequisite: minimal math skills.

Terms: Aut | Units: 3-5 | UG Reqs: GER:DB-EngrAppSci, WAY-FR | Grading: Letter or Credit/No Credit

**CS106A: Programming Methodology (ENGR 70A)**

Introduction to the engineering of computer applications emphasizing modern software engineering principles: object-oriented design, decomposition, encapsulation, abstraction, and testing. Uses the Java programming language. Emphasis is on good programming style and the built-in facilities of the Java language. No prior programming experience required. Summer quarter enrollment is limited.

Terms: Aut, Win, Spr, Sum | Units: 3-5 | UG Reqs: GER:DB-EngrAppSci, WAY-FR | Grading: Letter or Credit/No Credit

**CS 106B: Programming Abstractions (ENGR 70B)**

Abstraction and its relation to programming. Software engineering principles of data abstraction and modularity. Object-oriented programming, fundamental data structures (such as stacks, queues, sets) and data-directed design. Recursion and recursive data structures (linked lists, trees, graphs). Introduction to time and space complexity analysis. Uses the programming language C++ covering its basic facilities. Prerequisite: 106A or equivalent. Summer quarter enrollment is limited.

Terms: Aut, Win, Spr, Sum | Units: 3-5 | UG Reqs: GER:DB-EngrAppSci, WAY-FR | Grading: Letter or Credit/No Credit

**CS 106J: Programming Methodology in JavaScript**

Introduction to the engineering of computer applications emphasizing modern software engineering principles: object-oriented design, decomposition, encapsulation, abstraction, and testing. Emphasis is on good programming style. This course covers the same material as CS 106A but does so using JavaScript, the most common language for implementing interactive web pages, instead of Java. No prior programming experience required. Enrollment limited to 100.

Terms: Spr | Units: 3-5 | Grading: Letter or Credit/No Credit

**CS 106X: Programming Abstractions (Accelerated) (ENGR 70X)**

Intensive version of 106B for students with a strong programming background interested in a rigorous treatment of the topics at an accelerated pace. Additional advanced material and more challenging projects. Prerequisite: excellence in 106A or equivalent, or consent of instructor.

Terms: Aut, Win | Units: 3-5 | UG Reqs: GER:DB-EngrAppSci, WAY-FR | Grading: Letter or Credit/No Credit

**CS147: Introduction to Human-Computer Interaction Design**

Introduces fundamental methods and principles for designing, implementing, and evaluating user interfaces. Topics: user-centered design, rapid prototyping, experimentation, direct manipulation, cognitive principles, visual design, social software, software tools. Learn by doing: work with a team on a quarter-long design project, supported by lectures, readings, and studios. Prerequisite: 106B or X or equivalent programming experience.

Terms: Aut | Units: 3-5 | Grading: Letter (ABCD/NP)

**CS 181: Computers, Ethics, and Public Policy**

Primarily for majors entering computer-related fields. Ethical and social issues related to the development and use of computer technology. Ethical theory, and social, political, and legal considerations. Scenarios in problem areas: privacy, reliability and risks of complex systems, and responsibility of professionals for applications and consequences of their work. Prerequisite: 106B or X.

Terms: Win, Spr | Units: 4 | UG Reqs: GER:EC-EthicReas, WAY-ER | Grading: Letter or Credit/No Credit

**CS247: Human-Computer Interaction Design Studio**

Project-based focus on interaction design process, especially early-stage design and rapid prototyping. Methods used in interaction design including needs analysis, user observation, sketching, concept generation, scenario building, and evaluation. Prerequisites: 147 or equivalent background in design thinking; 106B or equivalent background in programming. Recommended: CS 142 or equivalent background in web programming

Terms: Win, Spr | Units: 3-4 | Grading: Letter (ABCD/NP)

**CSRE 148/248: Comparative Ethnic Conflict (SOC 148/248) NOT GIVEN IN 2016-17**

The construction and meanings of racial identities in the U.S. Attention is on multiracial identities and the shifting boundaries of racial categories in contemporary America. Causes and consequences of racial and ethnic conflict, including nationalist movements, ethnic genocide, civil war, ethnic separatism, politics, indigenous peoples' movements, and minority rights movements around the world.

### **EARTHSYS 135/235: Podcasting the Anthropocene**

The Anthropocene refers to the proposed geologic age defined by the global footprint of humankind. It's an acknowledgement of the tremendous influence people and societies exert on Earth systems. Students taking the course will identify a subject expert, workshop story ideas with fellow students and instructors, conduct interviews, iteratively write audio scripts, and learn the skills necessary to produce final audio podcast as their final project. Our expectation is that the final projects will be published on the award-winning Generation Anthropocene podcast, with possible opportunities to cross post in collaboration with external media partners. Students taking EARTHSYS 135/235 are strongly encouraged to take EARTHSYS 135A/235A beforehand. Terms: Win | Units: 3 | Repeatable for credit | Grading: Letter or Credit/No Credit

### **EARTHSYS 149/249: Wild Writing**

What is wilderness and why does it matter? In this course we will interrogate answers to this question articulated by influential and diverse American environmental thinkers of the 19th, 20th, and 21st centuries, who through their writing transformed public perceptions of wilderness and inspired such actions as the founding of the National Park System, the passage of the Wilderness Act and the Clean Air and Water Acts, the establishment of the Environmental Protection Agency, and the birth of the environmental and climate justice movements. Students will also develop their own responses to the question of what is wilderness and why it matters through a series of writing exercises that integrate personal narrative, wilderness experience, and environmental scholarship, culminating in a ~3000 word narrative nonfiction essay. This course will provide students with knowledge, tools, experience, and skills that will empower them to become more persuasive environmental storytellers and advocates.

Terms: Spr | Units: 3 | Grading: Letter (ABCD/NP)

### **ECON 150: Economic Policy Analysis (PUBLPOL 104/204)**

The relationship between microeconomic analysis and public policy making. How economic policy analysis is done and why political leaders regard it as useful but not definitive in making policy decisions. Economic rationales for policy interventions, methods of policy evaluation and the role of benefit-cost analysis, economic models of politics and their application to policy making, and the relationship of income distribution to policy choice. Theoretical foundations of policy making and analysis, and applications to program adoption and implementation. Prerequisites: ECON 50 and ECON 102B. Terms: Win | Units: 4-5 | UG Reqs: WAY-AQR | Grading: Letter or Credit/No Credit

### **EDUC 358: Learning, Sharing, Publishing, and Intellectual Property NOT GIVEN IN 2016-17**

This course explores the educational, historical, legal, economic, technical, and ethical issues entailed in the digital-era openness and sharing of intellectual properties associated with learning (including books, websites, games, journals, etc.). The course provides students with the skills and knowledge for finding, developing, and evaluating resources at all educational levels, based on a grasp of the opportunities and challenges of increasing access to learning in this way. As part its global focus on open learning, the course will be run in conjunction with the MOOC ¿OpenKnowledge Changing the Global Course of Learning¿ (search for it online), offering students the option of both experiencing and studying a MOOC on this theme, which is being co-taught in Mexico, Ghana, Canada, and the US (Stanford and Fordham) in English and Spanish.

### **EDUC 374: Philanthropy and Civil Society (POLISCI 334, SOC 374)**

Cross-listed with Law (LAW 781), Political Science (POLISCI 334) and Sociology (SOC 374). Associated with the Center for Philanthropy and Civil Society (PACS). Year-long workshop for doctoral students and advanced undergraduates writing senior theses on the nature of civil society or philanthropy. Focus is on pursuit of progressive research and writing contributing to the current scholarly knowledge of the nonprofit sector and philanthropy. Accomplished in a large part through peer review. Readings include recent scholarship in aforementioned fields. May be repeated for credit for a maximum of 9 units.

Terms: Aut, Win, Spr | Units: 1-3 | Repeatable for credit | Grading: Satisfactory/No Credit

### **EE 47: Press Play: Interactive Device Design NOT GIVEN IN 2016-17**

Introduction to the human-centered and technical workings behind interactive devices ranging from cellphones and video controllers to smart cars and appliances. Students build a working MP3 player prototype of their own design, using embedded microcontrollers, digital audio decoders and component sensors, and other electronic hardware. Topics include electronics prototyping, interface prototyping, sensors and actuators, micro-controller development, physical prototyping, and user testing. Prerequisite: CS106A and X or consent of instructor.

### **EE 392D: Designing Civic Technologies with Virtual Reality NOT GIVEN IN 2016-17**

In this class students develop prototypes for virtual reality applications, which strive for a positive impact on society. The students work in interdisciplinary teams, and the projects are developed following the human-centered design process of need-finding, rapid prototyping, user-testing and iterations. We approach virtual reality as a civic technology in the following focus areas: education, environment, health care, democratic decision-making and journalistic storytelling. The class collaborates with industry and organizational partners in those respective areas for needfinding, prototyping and user-testing.

**ENGLISH 124: The American West (AMSTUD 124A , ARTHIST 152, HISTORY 151, POLISCI 124A)**

The American West is characterized by frontier mythology, vast distances, marked aridity, and unique political and economic characteristics. This course integrates several disciplinary perspectives into a comprehensive examination of Western North America: its history, physical geography, climate, literature, art, film, institutions, politics, demography, economy, and continuing policy challenges. Students examine themes fundamental to understanding the region: time, space, water, peoples, and boom and bust cycles. Terms: Spr | Units: 5 | UG Reqs: GER:DB-Hum, GER:EC-AmerCul, WAY-A-II, WAY-SI | Grading: Letter (ABCD/NP)

**ENGR 70A: Programming Methodology (CS 106A)**

Introduction to the engineering of computer applications emphasizing modern software engineering principles: object-oriented design, decomposition, encapsulation, abstraction, and testing. Uses the Java programming language. Emphasis is on good programming style and the built-in facilities of the Java language. No prior programming experience required. Summer quarter enrollment is limited.

Terms: Aut, Win, Spr, Sum | Units: 3-5 | UG Reqs: GER:DB-EngrAppSci, WAY-FR | Grading: Letter or Credit/No Credit

**ENGR 70B: Programming Abstractions (CS 106B)**

Abstraction and its relation to programming. Software engineering principles of data abstraction and modularity. Object-oriented programming, fundamental data structures (such as stacks, queues, sets) and data-directed design. Recursion and recursive data structures (linked lists, trees, graphs). Introduction to time and space complexity analysis. Uses the programming language C++ covering its basic facilities. Prerequisite: 106A or equivalent. Summer quarter enrollment is limited.

Terms: Aut, Win, Spr, Sum | Units: 3-5 | UG Reqs: GER:DB-EngrAppSci, WAY-FR | Grading: Letter or Credit/No Credit

**ENGR 70X: Programming Abstractions (Accelerated) (CS 106X)**

Intensive version of 106B for students with a strong programming background interested in a rigorous treatment of the topics at an accelerated pace. Additional advanced material and more challenging projects. Prerequisite: excellence in 106A or equivalent, or consent of instructor.

Terms: Aut, Win | Units: 3-5 | UG Reqs: GER:DB-EngrAppSci, WAY-FR | Grading: Letter or Credit/No Credit

**ENGR 130: Science, Technology, and Contemporary Society NOT GIVEN IN 2016-17**

Key social, cultural, and values issues raised by contemporary scientific and technological developments; distinctive features of science and engineering as sociotechnical activities; major influences of scientific and technological developments on 20th-century society, including transformations and problems of work, leisure, human values, the fine arts, and international relations; ethical conflicts in scientific and engineering practice; and the social shaping and management of contemporary science and technology.

**ENGR 281: Designing Media that Matters**

The combination of always-on smartphones, instant access to information and global social sharing is changing behavior and shifting cultural norms. How can we design digital experiences that make this change positive? Join the d.media team and find out! This course is project-based and hands-on. Three projects will explore visual design, interaction design and behavioral design all in the context of today's technology landscape and in service of a socially positive user experience. See <http://dmedia.stanford.edu>, Admission by application. See [dschool.stanford.edu/classes](http://dschool.stanford.edu/classes) for more information.

Terms: Win | Units: 2-3 | Grading: Letter or Credit/No Credit

**FILMPROD 101: Screen Writing I: Visual Writing**

A writing workshop that is an exploration of visual storytelling. Beginning with visual literacy, the class progresses from basic cinematic techniques through scene exercises to revisions and ultimately to connecting scenes in order to build sequences of script pages. Open to all majors.

Terms: Win | Units: 4 | Grading: Letter (ABCD/NP)

**FILMPROD 104/301: Screenwriting II: Intermediate Screenwriting**

Priority to Film and Media Studies majors. Craft, form, and approaches to writing for the screen. Prerequisites: FP104 Visual Writing or EGL190F Fiction into Film and consent of the instructor. Terms: Spr | Units: 5 | Grading: Letter (ABCD/NP)

**FILMPROD 105/305: Script Analysis**

Analysis of screenplay and film from the writer's perspective, with focus on ideation, structure, and dramatic tension in narrative features. Sources include screenplays and screenings.

Terms: Aut | Units: 4 | Grading: Letter or Credit/No Credit

**FILMPROD 106: Image and Sound: Filmmaking for the Digital Age**

Despite the rise of emerging forms like two-minute YouTube videos, six second Vines, or interactive storytelling modules, many core principles of visual storytelling remain unchanged. In this hands-on film production class students will learn a broad set of filmmaking fundamentals (basic history, theory, and practice) and will apply them creating film projects using tools such as iPhones, consumer cameras and FCPX.

Terms: Aut, Win, Spr | Units: 3 | UG Reqs: WAY-CE | Grading: Letter (ABCD/NP)

**FILMPROD 110: Screen Writing III: Advanced Screenwriting**

Advanced writing workshop in which students develop and complete a feature-length screenplay. Prerequisites: FP101 Screenwriting and approval of the instructor. Enrollment is limited.

Terms: Win | Units: 5 | Grading: Letter (ABCD/NP)

**FILMPROD 114: Introduction to Film and Video Production**

Hands-on. Techniques of film and video making including conceptualization, visualization, story structure, cinematography, sound recording, and editing. Enrollment limited to 12 students. Priority to junior/senior Film & Media Studies majors.

Terms: Aut, Spr | Units: 5 | UG Reqs: WAY-CE | Grading: Letter (ABCD/NP)

**FILMSTUD 4: Introduction to Film Study**

Formal, historical, and cultural issues in the study of film. Classical narrative cinema compared with alternative narrative structures, documentary films, and experimental cinematic forms. Issues of cinematic language and visual perception, and representations of gender, ethnicity, and sexuality. Aesthetic and conceptual analytic skills with relevance to cinema.

Terms: Win | Units: 5 | UG Reqs: GER:DB-Hum, WAY-A-II | Grading: Letter (ABCD/NP)

**FILMSTUD 6: Introduction to Media**

What is a medium? This course starts from the assumption that the answer to this question is not as obvious as it might at first appear. Clearly, we know some media when we see them: radio, film, and television are in many ways paradigmatic media of the twentieth century. But what about the computational, networked media of the twenty-first century? Are these still media in the same sense, or has the nature of media changed with the emergence of digital technologies? And what, for that matter, about pre-technical media? Is painting a medium in the same sense that oil or acrylic are media, or in the sense that we speak of 'mixed media'? Is language a medium? Are numbers? Is the body? As we shall see, the question of what a medium is raises a number of other questions of a theoretical or even philosophical nature. How is our experience of the world affected or shaped by media? Are knowledge and perception possible apart from media, or are they always mediated by the apparatuses, instruments, or assemblages of media? What is the relation between the forms and the contents of media, and how does this relation bear on questions of aesthetics, science, technology, or politics? The lecture-based course addresses these and other questions and seeks in this way to introduce a way of thinking about media that goes beyond taken-for-granted ideas and assumptions, and that has a potentially transformative effect on a wide range of theoretical and practical interests.

Terms: Aut | Units: 5 | UG Reqs: WAY-A-II | Grading: Letter (ABCD/NP)

**FILMSTUD 7: Introduction to Television Studies NOT GIVEN IN 2016-17**

Television is arguably the most influential and ubiquitous mass medium of the last half century. Because of its familiarity and popularity, it is also often the medium most overlooked, dismissed, and maligned. Drawing from the history of television and of television scholarship, this course builds a theoretical framework for understanding this pivotal cultural form. We will cover interdisciplinary approaches to studying TV texts, TV audiences, and TV industries, including questions of the boundaries of "television" (from independent and avant-garde video to convergence). In the process, we'll develop our own methodological tools as critical television viewers.

**FILMSTUD 114/314: Reading Comics**

The modern medium of comics, a history that spans 150 years. The flexibility of the medium encountered through the genres of humorous and dramatic comic strips, superheroes, undergrounds, independents, journalism, and autobiography. Innovative creators including McCay, Kirby, Barry, Ware, and critical writings including McCloud, Eisner, Groenstee. Topics include text/image relations, panel-to-panel relations, the page, caricature, sequence, seriality, comics in the context of the fine arts, and relations to other media. Terms: Aut | Units: 4 | UG Reqs: GER:DB-Hum | Grading: Letter (ABCD/NP)

**FILMSTUD 129: Animation and the Animated Film (ARTHIST 329)**

The fantasy of an image coming to life is ancient, but not until the cinema was this fantasy actualized. The history of the movies begins with optical toys, and contemporary cinema is dominated by films that rely on computer animation. This course considers the underlying fantasies of animation in art and lit, its phenomenologies, its relation to the uncanny, its status as a pure cinema, and its place in film theory. Different modes of production and style to be explored include realist



animation, abstract animation; animistic animation; animated drawings, objects, and puppets; CGI, motion capture, and live/animation hybrids.

Terms: Spr | Units: 4 | Grading: Letter or Credit/No Credit

### **FILMSTUD 165A/365A: Fashion Shows: From Lady Godiva to Lady Gaga NOT GIVEN IN 2016-17**

The complex and interdependent relationship between fashion and art. Topics include: the ways in which artists have used fashion in different art forms as a means to convey social status, identity, and other attributes of the wearer; the interplay between fashion designers and various art movements, especially in the 20th century; the place of prints, photography, and the Internet in fashion, in particular how different media shape how clothes are seen and perceived. Texts by Thorstein Veblen, Roland Barthes, Dick Hebdige, and other theorists of fashion.

### **FILMSTUD 251: Media in Transition NOT GIVEN IN 2016-17**

In a culture obsessed with "new" media, we're bombarded with hype about the present as a revolutionary phase of convergence. But everything old was once new, and pioneering media of the past also had to negotiate existing technologies, ideologies, and fantasies. This seminar is organized around case studies of transitional media moments. In exploring the material and discursive aspects of remediation through theoretical, historical, and media archaeological readings, we'll ask: what is a medium and how do they emerge and evolve?

### **HISTORY 151: THE AMERICAN WEST (AMSTUD 124A , ARTHIST 152, ENGLISH 124, POLISCI 124A)**

The American West is characterized by frontier mythology, vast distances, marked aridity, and unique political and economic characteristics. This course integrates several disciplinary perspectives into a comprehensive examination of Western North America: its history, physical geography, climate, literature, art, film, institutions, politics, demography, economy, and continuing policy challenges. Students examine themes fundamental to understanding the region: time, space, water, peoples, and boom and bust cycles. Terms: Spr | Units: 5 | UG Reqs: GER:DB-Hum, GER:EC-AmerCul, WAY-A-II, WAY-SI | Grading: Letter (ABCD/NP)

### **HISTORY 254: Popular Culture and American Nature NOT GIVEN IN 2016-17**

Despite John Muir, Aldo Leopold, and Rachel Carson, it is arguable that the Disney studios have more to do with molding popular attitudes toward the natural world than politicians, ecologists, and activists. Disney as the central figure in the 20th-century American creation of nature. How Disney, the products of his studio, and other primary and secondary texts see environmentalism, science, popular culture, and their interrelationships.

### **LINGUIST 131: Language and Thought (PSYCH 131/262) NOT GIVEN IN 2016-17**

The psychology of language including: production and understanding in utterances; from speech sounds to speaker's meaning; children's acquisition of the first language; and the psychological basis for language systems. Language functions in natural contexts and their relation to the processes by which language is produced, understood, and acquired. Prerequisite: 1 or LINGUIST 1.

### **ME101: Visual Thinking**

Lecture/lab. Visual thinking and language skills are developed and exercised in the context of solving design problems. Exercises for the mind's eye. Rapid visualization and prototyping with emphasis on fluent and flexible idea production. The relationship between visual thinking and the creative process. Freshmen and Sophmores are recommended to take this section of ME101. Limited enrollment. Attend the first day of class.

Terms: Aut, Win, Spr | Units: 4 | UG Reqs: GER:DB-EngrAppSci, WAY-CE | Grading: Letter or Credit/No Credit

### **ME 302: The Future of the Automobile NOT GIVEN IN 2016-17**

This quarter, the seminar will take a specific focus on "Vehicle Communication Systems", which connect vehicles to the outside world and with one another. Respective concepts include online media and services in the vehicle, vehicles communicating with a centralized traffic management infrastructure, and vehicles communicating among themselves to avoid collisions and improve traffic flow. This class consists in the first half of lectures by an industry expert and in the second half of group work when students will develop scenarios for vehicle communication systems. The goal of the course is to develop a technical understanding as well as an understanding for the interactions of technology, business, and society with a specific automotive focus and assess technology in a larger context.

### **MUSIC 8A: Rock, Sex, and Rebellion**

Development of critical listening skills and musical parameters through genres in the history of rock music. Focus is on competing aesthetic tendencies and subcultural forces that shaped the music. Rock's significance in American culture, and the minority communities that have enriched rock's legacy as an expressively diverse form. Lectures, readings, listening, and video screenings. Attendance at all lectures is required. Terms: Spr | Units: 3 | UG Reqs: GER:DB-Hum, GER:EC-AmerCul, WAY-A-II, WAY-ED | Grading: Letter or Credit/No Credit

**OSPBEIJ 42: Chinese Media Studies**

Fundamental changes in Chinese media. Issues such as: how Chinese media emerge and evolve against the background of modern Chinese history; how they interact with government, sponsors, receivers, and other social institutions; and implications for Chinese social development. Terms: Spr | Units: 4 | UG Reqs: GER:DB-SocSci, GER:EC-GlobalCom | Grading: Letter (ABCD/NP)

**OSPFLOR 49: On-Screen Battles: Filmic Portrayals of Fascism and World War II**

Structural and ideological attributes of narrative cinema, and theories of visual and cinematic representation. How film directors have translated history into stories, and war journals into visual images. Topics: the role of fascism in the development of Italian cinema and its phenomenology in film texts; cinema as a way of producing and reproducing constructions of history; film narratives as fictive metaphors of Italian cultural identity; film image, ideology, and politics of style. Terms: Win | Units: 5 | UG Reqs: GER:DB-Hum, WAY-A-II | Grading: Letter (ABCD/NP)

**OSPFLOR 67: The Celluloid Gaze: Gender, Identity and Sexuality in Cinema**

Film in the social construction of gender through the representation of the feminine, the female, and women. Female subjects, gaze, and identity through a historical, technical, and narrative frame. Emphasis is on gender, identity, and sexuality with references to feminist film theory from the early 70s to current methodologies based on semiotics, psychoanalysis, and cultural studies. Advantages and limitations of methods for textual analysis and the theories which inform them. Primarily in Italian.

Terms: Spr | Units: 4 | UG Reqs: GER:DB-Hum, GER:EC-Gender, WAY-A-II, WAY-ED | Grading: Letter (ABCD/NP)

**OSPMADR 71: Sociology of Communication**

Understanding the sociocultural diversity of communication in Spain with the help of theoretical and practical tools. How communication happens through language and other means; significance of images in today's world; vision of the world produced by media; problems of social communication from perspective of reception. Offered at the Universidad Complutense with an additional tutorial for Stanford students.

Terms: Aut | Units: 5 | UG Reqs: WAY-SI | Grading: Letter (ABCD/NP)

**OSPSANTG 118X: Artistic Expression in Latin America**

Elite, mass-media, and popular cultural changes in Chile under conditions of economic and political liberalization. The reception of cultural meanings from the center of the world social system (U.S., EU, and Japan), reformulation to respond to local conditions, and export in the shape of cultural artifacts. Innovative elements rooted in the regional and local culture. Terms: Sum | Units: 5 | UG Reqs: GER:DB-SocSci, GER:EC-GlobalCom, WAY-ED | Grading: Letter (ABCD/NP)

**POLISCI 102/123: Politics and Public Policy (AMSTUD 123X, PUBLPOL 101/ 201)**

American political institutions (the Presidency, Congress, and the Court) and political processes (the formation of political attitudes and voting) have for some time now been criticized as inadequate to the task of making modern public policy. Against the backdrop of American culture and political history we examine how public policy has been and is being made. We use theories from Political Science and Economics to assess the state of the American system and the policy making process. We use case studies and lectures to analyze contemporary issues including environmental policy, taxes and spending, gun control, economic growth and inequality and mobility. In some of these issue areas we use comparative data from other countries to see how the U.S. is doing relative to other countries. In addition to class room lecture and discussion, student groups are formed to analyze policy issues of relevance to them. (This course has merged with Political Science 2.) Terms: Win | Units: 4-5 | UG Reqs: GER:DB-SocSci, WAY-SI | Grading: Letter or Credit/No Credit

**POLISCI 124A: THE AMERICAN WEST (AMSTUD 124A, ARTHIST 152, ENGLISH 124, HISTORY 151)**

The American West is characterized by frontier mythology, vast distances, marked aridity, and unique political and economic characteristics. This course integrates several disciplinary perspectives into a comprehensive examination of Western North America: its history, physical geography, climate, literature, art, film, institutions, politics, demography, economy, and continuing policy challenges. Students examine themes fundamental to understanding the region: time, space, water, peoples, and boom and bust cycles. Terms: Spr | Units: 5 | UG Reqs: GER:DB-Hum, GER:EC-AmerCul, WAY-A-II, WAY-SI | Grading: Letter (ABCD/NP)

**POLISCI 334: Philanthropy and Civil Society (EDUC 374, SOC 374)**

Cross-listed with Law (LAW 781), Political Science (POLISCI 334) and Sociology (SOC 374). Associated with the Center for Philanthropy and Civil Society (PACS). Year-long workshop for doctoral students and advanced undergraduates writing senior theses on the nature of civil society or philanthropy. Focus is on pursuit of progressive research and writing contributing to the current scholarly knowledge of the nonprofit sector and philanthropy. Accomplished in a large part through peer review. Readings include recent scholarship in aforementioned fields. May be repeated for credit for a maximum of 9 units.

Terms: Aut, Win, Spr | Units: 1-3 | Repeatable for credit | Grading: Satisfactory/No Credit

**PSYCH 75: Introduction to Cultural Psychology**

The cultural sources of diversity in thinking, emotion, motivation, self, personality, morality, development, and psychopathology. Terms: Win | Units: 5 | UG Reqs: GER:DB-SocSci, GER:EC-GlobalCom, WAY-ED, WAY-SI | Grading: Letter or Credit/No Credit

**PSYCH 131/262: Language and Thought (LINGUIST 131) NOT GIVEN IN 2016-17**

The psychology of language including: production and understanding in utterances; from speech sounds to speaker's meaning; children's acquisition of the first language; and the psychological basis for language systems. Language functions in natural contexts and their relation to the processes by which language is produced, understood, and acquired. Prerequisite: 1 or LINGUIST 1.

**PSYCH 245: Social Psychological Perspectives on Stereotyping and Prejudice NOT GIVEN IN 2016-17**

Classic and contemporary social psychological approaches to prejudice and stereotyping. Emphasis is on how stereotypes are employed and maintained, and the influence of stereotyping and prejudice on behavior in domains including education, employment, politics, and law. Limited enrollment.

**PUBLPOL 101/ 201: Politics and Public Policy (AMSTUD 123X, POLISCI 102/123)**

American political institutions (the Presidency, Congress, and the Court) and political processes (the formation of political attitudes and voting) have for some time now been criticized as inadequate to the task of making modern public policy. Against the backdrop of American culture and political history we examine how public policy has been and is being made. We use theories from Political Science and Economics to assess the state of the American system and the policy making process. We use case studies and lectures to analyze contemporary issues including environmental policy, taxes and spending, gun control, economic growth and inequality and mobility. In some of these issue areas we use comparative data from other countries to see how the U.S. is doing relative to other countries. In addition to class room lecture and discussion, student groups are formed to analyze policy issues of relevance to them. (This course has merged with Political Science 2.) Terms: Win | Units: 4-5 | UG Reqs: GER:DB-SocSci, WAY-SI | Grading: Letter or Credit/No Credit

**PUBLPOL 104/204: Economic Policy Analysis (ECON 150)**

The relationship between microeconomic analysis and public policy making. How economic policy analysis is done and why political leaders regard it as useful but not definitive in making policy decisions. Economic rationales for policy interventions, methods of policy evaluation and the role of benefit-cost analysis, economic models of politics and their application to policy making, and the relationship of income distribution to policy choice. Theoretical foundations of policy making and analysis, and applications to program adoption and implementation. Prerequisites: ECON 50 and ECON 102B. Terms: Win | Units: 4-5 | UG Reqs: WAY-AQR | Grading: Letter or Credit/No Credit

**PUBLPOL 194/294: Technology Policy NOT GIVEN IN 2016-17**

How the U.S. federal government promotes, uses, and regulates new technologies; tensions between representative governance and the need for elite expertise in policymaking; contemporary debates over international security, energy, health, information technology, and economic competitiveness. Recommended: POLISCI 2.

**SINY 116: Off the iPhone and Into the City: Creating a Photography Project**

Learn components of photography projects and image making including content selection, intention, context, and audience. Talks by professional photographers; field trips to in the city. Two response papers about an exhibition, publication, or long-form web project during their time in New York.

Terms: Aut, Win | Units: 4 | Grading: Letter or Credit/No Credit

**SINY 122: The Agile City**

Examine the economic, cultural and environmental forces transforming the urban experience globally and understand how cities become agile to adapt to rapidly evolving urban challenges. This course would draw from case studies in New York and elsewhere, using guest experts and site visits or walking tours.

Terms: Aut | Units: 4 | UG Reqs: WAY-A-II, WAY-SI | Grading: Letter or Credit/No Credit

**SINY 124: New York and the Art World**

In an influential essay of 1964 responding to the work of Andy Warhol and Jasper Johns, the philosopher Arthur Danto defined an "artworld" as "an atmosphere of artistic theory." More generally, the term art world has come to mean a social, cultural and economic milieu consisting of art professionals (artists, collectors, dealers, historians, educators and critics) and institutions (the media, museums, galleries, schools, auction houses and other markets, such as art fairs). Since the end of World War II and the migration of European artists associated with the School of Paris, New York has been considered the capital of the art world.

This course considers the definitions and practices associated with the New York art world through readings in history and theory and extensive on-the-ground engagement with its pivotal figures and sites. Field trips to museums, galleries and

other cultural institutions showcase the wider implications and professional aspects of current art making, as well as the exhibition, distribution and reception of contemporary art. Some background in art history is helpful but not required.

Terms: Aut | Units: 4 | Grading: Letter (ABCD/NP)

### **SINY 130: Disrupting the News: How Technology is Transforming the Media**

Examine how technology has transformed the way news is produced, delivered and consumed from disruption in business models to changes in access. Students read works by leading media scholars, study user data from news organizations and meet key executives in New York City's digital-media market.

Terms: Win | Units: 4 | Grading: Letter or Credit/No Credit

### **SINY 132: Ingenious Entrepreneurship**

Examine factors impacting entrepreneurship, including idea generation, writing a business plan, raising capital, developing products or services, the art of marketing and incorporating an entrepreneurial mindset into internships, coursework and future employment. An emphasis will be on media and marketing and leveraging the resources of a major city such as New York.

Terms: Win | Units: 4 | Grading: Letter or Credit/No Credit

### **SIW 184: Whose History? A Smithsonian Overview NOT GIVEN IN 2016-17**

### **SOC 120/220: Interpersonal Relations NOT GIVEN IN 2016-17**

Forming ties, developing norms, status, conformity, deviance, social exchange, power, and coalition formation; important traditions of research have developed from the basic theories of these processes. Emphasis is on understanding basic theories and drawing out their implications for change in a broad range of situations, families, work groups, and friendship groups.

### **SOC 148/248: Comparative Ethnic Conflict (CSRE 148, 248) NOT GIVEN IN 2016-17**

The construction and meanings of racial identities in the U.S. Attention is on multiracial identities and the shifting boundaries of racial categories in contemporary America. Causes and consequences of racial and ethnic conflict, including nationalist movements, ethnic genocide, civil war, ethnic separatism, politics, indigenous peoples' movements, and minority rights movements around the world.

### **SOC 374: Philanthropy and Civil Society (EDUC 374, POLISCI 334)**

Cross-listed with Law (LAW 781), Political Science (POLISCI 334) and Sociology (SOC 374). Associated with the Center for Philanthropy and Civil Society (PACS). Year-long workshop for doctoral students and advanced undergraduates writing senior theses on the nature of civil society or philanthropy. Focus is on pursuit of progressive research and writing contributing to the current scholarly knowledge of the nonprofit sector and philanthropy. Accomplished in a large part through peer review. Readings include recent scholarship in aforementioned fields. May be repeated for credit for a maximum of 9 units.

Terms: Aut, Win, Spr | Units: 1-3 | Repeatable for credit | Grading: Satisfactory/No Credit

### **STATS 101: Data Science 101**

This course will provide a hands-on introduction to statistics and data science. Students will engage with the fundamental ideas in inferential and computational thinking. Each week, we will explore a core topic comprising three lectures and two labs (a module), in which students will manipulate real-world data and learn about statistical and computational tools. Students will engage in statistical computing and visualization with current data analytic software (Jupyter, R). The objectives of this course are to have students (1) be able to connect data to underlying phenomena and to think critically about conclusions drawn from data analysis, and (2) be knowledgeable about programming abstractions so that they can later design their own computational inferential procedures. Open to undergraduates and graduates.

Terms: Aut, Spr | Units: 5 | Grading: Letter or Credit/No Credit

### **SYMSYS 209: Battles Over Bits NOT GIVEN IN 2016-17**

The changing nature of information in the Internet age and its relationship to human behavior. Philosophical assumptions underlying practices such as open source software development, file sharing, common carriage, and community wireless networks, contrasted with arguments for protecting private and commercial interests such as software patents, copy protection, copyright infringement lawsuits, and regulatory barriers. Theory and evidence from disciplines including psychology, economics, computer science, law, and political science. Prerequisite: PSYCH 40, 55, 70, or SYMSYS 202.

### **SYMSYS 210: Learning Facial Emotions: Art & Psychology NOT GIVEN IN 2016-17**

Artistic and psychological learning approaches for emotion recognition from facial expressions. The advantages of learning by image-based microexpressions, subtle expressions, macro expressions, art drawing and actor mimicry when there are cognitive deficits due to conditions such as autism. Comparative analysis uses brain studies, learning theory, and human-computer interaction. Studio component conveys the artistic and psychological approaches. Prerequisites:

PSYCH 1, SYMSYS 100 or consent of instructor. Go to [www.stanford.edu/~dwilkins/Symsys210Enroll.doc](http://www.stanford.edu/~dwilkins/Symsys210Enroll.doc) to sign up for a Permission Number.

**SYMSYS 211: Learning Facial Emotions: Art, Psychology, Human-Computer Interaction NOT GIVEN IN 2016-17**

Learning to recognize facial emotions by drawing a live model versus the psychology method of using classified images of subtle and micro expressions. Dimensions of analysis include cognitive modeling and neuroscience. The design of human-computer interaction systems for people with cognitive deficits such as autism and Aspergers, which integrate the art and psychology approaches using methods such as robot heads, avatars, and facial recognition software. Prerequisites: PSYCH 1 or consent of instructor.

**TAPS 126: Sound Stories**

This is a small seminar designed for students interested in creating scored sonic stories for radio or podcast. Students will examine the craft elements of the medium, popularized by programs like This American Life, Radiolab and Serial. You will write and produce your own piece, be it documentary, inquiry, or some combination of these genres. Plus you will have the opportunity to meet at work with some of the best storytellers in America. Terms: Spr | Units: 4 | UG Reqs: WAY-CE | Grading: Letter or Credit/No Credit

**TAPS 176A: Narrative Design**

This class examines narrative design in performed storytelling, especially live drama, oral storytelling, and radio, and compares it to narrative design in other forms, such as print, photography, and the graphic novel. After considering what media theory, psychology and neurobiology understand about how different forms of narratives operate on us, students will create a "base narrative" in print and then versions of that narrative in two different other forms. The goal is for students to understand narrative design principles both across and specific to media forms and be able to apply them to move audiences. Students will have the opportunity to meet and work with master storytellers including Anthony Doerr, author of the Pulitzer prize winning novel All The Light We Cannot See. Terms: Win | Units: 4 | Grading: Letter or Credit/No Credit

**TAPS 176B: Documentary Fictions (AFRICAAM 176B) NOT GIVEN IN 2016-17**

More and more of our best fiction, plays, and comics are being created out of documentary practices such as in-depth interviewing, oral histories, and reporting. Novels like Dave Egger's What is the What and plays like Anna Deavere Smith's Let Me Down Easy act as both witnesses and translators of people's direct experience and push art into social activism in new ways. This course takes a close look at a diverse range of these contemporary works and explores how to adopt their research and aesthetic strategies for work of your own. We start with a brief look back at the recent origins of this trend and look at excerpts from forerunners such as Richard Wright, Truman Capote, and Bertolt Brecht. We then turn to the rise of documentary fictions in the last few decades and read works by Eggers, Adam Johnson, G.B. Tran, Maria Hummel, and Daniel Alarcon and watch performances by the Tectonic Theater Project and Elevator Repair Service. Students write one analytic essay and then conduct or study interviews to design a work of their own. The course will feature class visits by a number of our authors and a special half-day workshop with Smith.

**END**

---