**Course Descriptions**

**ARTS**

**ART-SHU 250 *Visual Culture and Social Art Practice: Collaborations and Community Interactions*.** What role does art play in our contemporary society?  Who is it for, what does it represent, and why? How can we, as visual culture participants and producers, ensure that we are relevant, engaged, engaging, and inclusive? How does locality and culture play a part in how we think about and present what we are making?

The purpose of this course is two-fold. Students will gain an understanding of Social Art Practice in China (including projects such as Bishan Village, The China Rural Reconstruction Academy, Grass Stage and the Xucun Project) and engage directly with Shanghai through outreach and collaborative projects. This is an opportunity for students to interact artistically and directly with Chinese communities as well as consider themselves in relation to those communities. Through the lens of social and relational art practices, they will develop and realize projects specific to various communities in Shanghai. Through open, experimental, and cross-disciplinary studio practice, students will develop one comprehensive, semester-long, collaborative project.

*Prerequisite: None.*

**ART-SHU 255 *Printmaking in an Expanded Field.*** Printmaking in China has a long and varied history. Originally, stamps and official seals were carved out of stone, jade, and other hard materials.  Eventually, softer wood was used as it was vastly easier to carve and more economical, thus establishing a tradition of Chinese relief printing on a vast scale. Students will gain an understanding of printmaking in China through its history, development and contemporary practices. They will learn techniques, modes, forms, and applications of printmaking – relief prints (stamps and wood cuts), monotypes (transfers and rubbings), intaglio (dry point engraving), stencils, and mixed media technique – in a conceptual framework of contemporary printmaking practices and global visual culture.

Students will also engage in selected readings to ground their visual pursuits in an historical and classical understanding as well as a theoretical, critical and contemporary context. Through a semester-long research project, they will be challenged to critically examine their own work in a contemporary global context.

*Prerequisite: None.*

**ART-SHU 306 *Moving Images.*** Moving images have become one of the most widely used media art forms because it allows both the artistic concentration of photography & the free-flowing imagery of movement.  Students acquire rudimentary skills in shooting & editing while working toward a personal statement in video. This course is open to all students with or without an art background. Note that attendance in the first class meeting is mandatory, otherwise you will be dropped from the course. *Prerequisite: None.*

**BIOLOGY**

**BIOL-SHU 22 *Foundations of Biology II.*** Our objective is to provide a concrete foundation in the principles of modern molecular and cellular biology.  These concepts form almost all basis for the great discoveries now being made in biology and the medical science.  In this course, we will discuss how proteins and biomolecules are sorted in the cell, how cells maintain structural framework, how cells multiply, how cells regulate transport cross membranes, how cells interact with environment, and how cancer cells arise.  In addition, we will discuss about principle experimental methods of modern cell biology.  An emphasis is place on understanding molecular mechanism of essential process, but not memorizing details.  In recitations, students will discuss modern research papers related to the topics that are covered in lecture.  Students should be able to understand the biology of the paper and criticize its potential pitfall.  *Prerequisite:* MATH-SHU 121 Calculus or MATH-SHU 201 Honors Calculus AND BIOL-SHU 21 Foundations of Biology I

**BIOL-SHU 123 *FoS Biology Laboratory.*** The course will teach students the skills needed in molecular biology research such as the hand-on techniques of microscopy, transformation, gene expression, PCR, gel electrophoresis, SDS-PAGE, and chromatography. The students will first learn these basic biological techniques in short experiment sets and then apply them as part of a Genetically-Modified Food project. The lab course will also emphasize literature search, scientific writing, peer reviewing, lab notes taking, poster and power point presentations, data analysis, and best practices in lab safety.

Prerequisite: Foundation of Biology I or II

**BUSINESS**

**BUSF-SHU *10J Creativity and Innovation.*** To compete today in a fast-changing world, organizations and individuals need a steady stream of innovative strategies and unexpected solutions to stay ahead of the game—solutions that revive stagnant markets or completely reinvent the competitive dynamics of an industry. This course is about fostering a culture of creative thinking that provides the framework and motivation to generate those strategies and execute those solutions. It is an essential skill for any student with the desire to transform organizational processes and behaviors, and a willingness to challenge the status quo. The course provides many opportunities to apply these new ways of thinking through class exercises and a course project, where you will develop innovative solutions for a chosen topic. Teams will submit two assignment deliverables.  This course is a Non-finance elective course.  *Prerequisite: None.*

**BUSF-SHU 202 *Foundations of Finance.*** This course is a rigorous, quantitative introduction to financial market structures and financial asset valuation. It has three goals: 1. To develop the concepts of arbitrage, the term structure of interest rates, diversification, the Capital Asset Pricing Model (CAPM), valuation of an individual firm, efficient and inefficient markets, performance evaluation of investment management , and valuation of derivative securities, particularly options. 2. To provide sufficient background knowledge about financial institutions and market conventions for students seeking an overview of capital markets as an introduction to advanced finance courses. 3. To introduce the principles of asset valuation from an applied perspective. The majority of the class is concerned with the valuation of financial securities. These valuation issues are heavily used in portfolio management and risk management applications. Throughout the course every effort will be made to relate the course material to current financial news. To take this course, students must be comfortable with statistics, linear algebra, calculus, and microeconomics. *Prerequisites BUSF-101 and ECON-150*.

**BUSF-SHU 229 *Behavioral Finance*.**This course uses human psychology and market frictions to shed light on asset returns, corporate finance patterns, and various Wall Street institutional practices. It starts with motivating evidence of return predictability in stock, bond, foreign exchange, and other markets. The course then proceeds to themes including the role of arbitrageurs in financial markets, the psychological and judgmental biases of average investors, and the financing patterns (such as capital structure and dividend policies) of firms that raise capital in inefficient securities markets and/or are led by irrational managers.

*Prerequisites:  Corporate Finance.*

**BUSF-SHU 232 *Entrepreneurship Explored*.** This course investigates the conspicuous activities of entrepreneurship such as raising capital, running factories, organizing supply chains and working out how to take existing products to new markets alongside the more private and primary first move behind entrepreneurial activity: sensitivity to pleasures and pains that others might overlook. You will gain useful tools and strategies you may apply whether you want to start a startup, thrive in a large organization, and everything between. Most classes use cases, an effective way to gain accelerated experience by absorbing a large number of stories of new ventures in a short time. These cases are complemented by visits from guest entrepreneurs and economists, who will share their ideas about entrepreneurship and economic dynamism, as well as field trips to Shanghai startups, and a team design challenge. This course is not just for students who want to be entrepreneurs. Any student who is driven to create change should enroll. *Prerequisite: None.*

**BUSF-SHU 286 *Chinese Financial Markets.*** This course introduces the institutions, instruments, and empirical regularities of Chinese financial markets and the role these markets play in the broader Chinese economy. The goal of the course is to provide students with a comprehensive understanding of Chinese financial markets. It focuses on current issues and debates about Chinese financial markets, including the Chinese banking system, RMB exchange rates, Chinese stock markets and bond markets, mutual fund and hedge fund industry, Chinese derivative markets and other important topics. The similarities and differences between Chinese financial markets and more developed markets will be highlighted. *Prerequisites: Foundations of Finance or Principles of Finance.*

**BUSF-SHU 303 *Corporate Finance.*** This course analyzes the major financial decisions made by corporate managers. The major topics include the objective of the firm, investment valuation and capital budgeting, risk management, capital structure and dividend policy. Insights from behavioral corporate finance that help better understand corporate decisions in practice will also be discussed. There will be emphasis on both developing the tools and mindset of the financial practitioner as well as examining specific applications in the form of examples, case discussions, and classroom simulations. *Prerequisite: BUSF-SHU 202*.

**BUSF-SHU 304 *Futures and Options.*** This course covers the theoretical and practical aspects of futures, options, and other derivative instruments, which have become some of the most important tools of modern finance. While the primary focus is on financial derivatives, contracts based on commodities, credit risk, and other nonfinancial variables are also covered. Topics include market institutions and trading practices, valuation models, hedging, and other risk management techniques. The course requires relatively extensive use of quantitative methods and theoretical reasoning. *Prerequisite: BUSF-202.*

**BUSF-SHU 308 *Hedge Fund Strategies*.** This course aims to provide an in-depth understanding of the strategies used by hedge funds, employing a hands-on approach based on case studies and real data. The hedge fund industry has grown rapidly over the last decade aided in part by the private nature of funds and light regulation that has enabled managers to employ strategies not available to traditional fund managers. The course examines critical aspects of hedge fund investment styles including the trading mechanism, risk-return profiles of investment styles, trading costs, risk management and performance measurement. Strategies covered include event driven strategies, equity, debt, FX, cross-market strategies, global macro and shareholder activism. Distinguished guest speakers will be invited to provide a real-life perspective and to discuss key issues. *Prerequisites: Corporate Finance*

**BUSF-SHU 350 *Principles of Managerial Accounting.*** Introduces students to the evolving role that managerial accounting has played and is expected to play in servicing the informational needs of managers in the planning, organizing, and controlling functions. Highlights the attention-directing, decision-support, and decision-influencing roles of managerial accounting, while helping students learn to structure business decisions systematically and identify the information relevant to a decision. Trains students to think analytically about improving existing systems to further a firm’s competitive advantage. *Prerequisite: None.*

**BUSF-SHU 200D** ***Business Consulting in China***. This course provides a consultant’s perspective on business consulting, particularly in China context. It introduces the principles, end-to-end processes, frameworks and best practices of business consulting. The course addresses how consulting firms work, what it is like working in a consulting firm and being on a consulting project. Students will form project teams and apply the principles and frameworks to real-life business consulting projects from mid-small companies in China. Prerequisites: Management and Organizations and/or Intro to Marketing, or upon approval by the instructor; requires Junior or Senior standing

**BUSF-SHU 222 *Risk Management in Financial Institutions*** This course examines the management of risks in a wide range of financial activities, with a particular focus on market risk, credit risk, and liquidity risk. It uses quantitative models to estimate credit losses, economic capital and value at risk, and to perform stress tests and scenario analysis. The course also analyzes the consequences of technological change, globalization, monetary policy, and the entry of new types of institutions into existing financial markets. It emphasizes the importance of systemic risk, moral hazard, and new regulations in light of the recent financial crisis.

**Social Foundations**

**CCSF-SHU 123 *Contemporary Chinese Political Thought (formerly China's Political Thought in the Post-Maoist Era*).** This course introduces students to perspectives on contemporary Chinese political and social thought as presented in academic publications, media reports, social commentary and postings on the Chinese Internet. It covers selected key topics in the disciplines of political, social, and cultural studies. It examines and compares Chinese and Western views on major developments and current issues. The course also introduces students to a variety of styles of writing and research methods as well as skills of cultural translation relevant to the study of contemporary China and Chinese thought. *Prerequisite: None.*

**COMPUTER ENGINEERING**

**CENG-SHU 201 *Digital Logic.*** This module provides a rigorous introduction to topics in digital logic design. Introductory topics include: classification of digital systems, number systems and binary arithmetic, error detection and correction, and switching algebra. Combinational design analysis and synthesis topics include: logic function optimization, arithmetic units such as adders and subtractors, and control units such as decoders and multiplexers. In-depth discussions on memory elements such as various types of latches and flip-flops, finite state machine analysis and design, random access memories, FPGAs, and high-level hardware description language programming such as VHDL or Verilog. Timing hazards, both static and dynamic, programmable logic devices, PLA, PAL and FPGA will also be covered. *Prerequisite: Intro to Programming or Intro to Computer Science.*

**CHEMISTRY**

**CHEM-SHU 125 *Foundations of Chemistry I.*** This course constitutes an introduction to general aspects of chemistry for science, engineering and math majors. Topics include the theories of atomic structure, stoichiometry, properties of gases, kinetic molecular theory, thermodynamics, quantum mechanics, electronic structure of atoms, periodicity of the elements, chemical bonding, and molecular structure. A particular emphasis is placed on developing physical and chemical intuition through problem solving. *Prereq or coreq: MATH-SHU 121 (Calculus) or MATH-SHU 201 (Honors Calculus)*

**CHEM-SHU 225 *Organic Chemistry I.*** This course uses an interactive, problems-based approach to study the structure and bonding of organic materials, conformational analysis, stereochemistry, and spectroscopy, topics that partly trace their roots to the development of quantum theory. The topics covered include basic reaction mechanisms such as substitution and elimination, and the reactions of aliphatic and aromatic hydrocarbons, alcohols, ethers, amines, carbonyl compounds, and carboxylic acids. The course incorporates modern analytical methods that are the cornerstone of contemporary organic chemistry.*Prereqs: CHEM-SHU 126 (Foundations of Chemistry II) and CHEM-SHU 127 (FoS Chemistry Laboratory). Coreq: CHEM-SHU 225L (Organic Chemistry I Lab). This satisfies a Required Course of the Chemistry Major.*

**CHEM-SHU 225L *Organic Chemistry I Lab*.** This laboratory course will introduce students to important concepts and techniques for carrying out, purifying, and analyzing organic chemical reactions. Purification methods such as recrystallization, extraction, distillation, and column chromatography will be utilized. Students will be introduced to organic analysis methods by determining the composition and purity of their synthesized compounds through physical property measurements (melting point, boiling point), thin-layer chromatography (TLC), gas chromatography (GC), and infrared (IR), ultraviolet (UV) and visible light spectroscopy. The knowledge and critical thinking skills gained in this course will prepare students for a wide array of potential future challenges, including the upper level courses, organic requirements for medical schools, and independent research. *Coreq: CHEM-SHU 225 (Organic Chemistry I). This satisfies a Required Course of the Chemistry Major.*

**CHEM-SHU 312 *Analytical Chemistry.*** Analytical Chemistry uses qualitative and quantitative analytical tools for ascertaining the chemical composition of a substance. In this course, students will be introduced to instrumental methods, including titrations, spectroscopy (UV-Vis, FTIR, NMR, Mass Spectroscopy, Atomic Absorption Spectroscopy) and chromatography. Quantitative measurement methods will be introduced along with the statistical concepts and tools of estimation, confidence, accuracy and precision. Students will learn the theoretical and practical aspects of Analytical Chemistry through lectures and laboratory demonstrations. *Prereqs: CHEM-SHU 126 (Foundations of Chemistry II) and CHEM-SHU 127 (FoS Chemistry Laboratory). This satisfies an Elective Course of the Chemistry Major.*

**CRWR-SHU245 *Speculative Fictions.*** Science fiction, fantasy, horror, weird fiction, alternative histories—all fall under the heading of *speculative fiction*. This class has three basic components: 1) reading and discussing a focused set of works of speculative fiction (and watching a few films), framed by a set of critical texts; 2) research; and 3) frequent writing exercises and assignments, culminating in a semester project.

 Students will read and discuss to understand better how speculative fiction works, both in terms of basic narrative techniques common to all fiction as well as with regard to challenges, such as *worldbuilding*, that may be considered unique to *speculative* fiction. Students will conduct research necessary to both better understand those texts and their authors’ techniques and thinking, and to do work necessary to support their own creative experiments in writing their own speculative fiction and/or critical work (research is a big part of the successful speculative fiction writer’s practice).  All students will begin their writing process by generating a range of story ideas by way of writing experiments and assignments before committing to a semester project. Once students have settled their semester projects, they will conduct research alongside the drafting of scenes for their final project, with the research helping them understand and begin to build a speculative world. Students will write a focused research paper as well as a creative work — most likely a short story, perhaps an episode of a larger envisioned project — informed and shaped by the research they conduct. Students are welcome to work to incorporate the work they do in this class into IMA or creative writing projects that exceed the scope of this class (so, for instance, IMA students might work to integrate their work for this class into their interactive projects).

*Elective Category: Digital Humanities & Social Sciences*

*Prerequisite: None*

**COMPUTER SCIENCE**

**CSCI-SHU 210 *Data Structures.*** Use and design of data structures, which organize information in computer memory. Stacks, queues, linked lists, binary trees: how to implement them in a high-level language, how to analyze their effect on algorithm efficiency, and how to modify them. Programming assignments. *Prerequisite: Intro to Computer Science or Instructor's consent. Equivalency: This course counts for CSCI-UA 102 Data Structures (NY).*

**CSCI-SHU 215 *Operating Systems.*** Covers the principles and design of operating systems. Topics include process scheduling and synchronization, deadlocks, memory management (including virtual memory), input-output, and file systems. Programming assignments. *Prerequisite: Data Structures; Computer Architecture or Computer Systems Organization.*

**CSCI-SHU 410 *Software Engineering.*** An intense hands-on study of practical techniques and methods of software engineering. Topics include: advanced object-oriented design, design patterns, refactoring, code optimization, universal modeling language, threading, user interface design, enterprise application development and development tools. All topics are integrated and applied during the semester-long group project. The aim of the project is to prepare students for dynamics in a real workplace. Members of the group will meet on a regular basis to discuss the project and to assign individual tasks. Students will be judged primarily on the final project presentations. *Prerequisites: CSCI-215 and 220.*

**CSCI-SHU 2314 *Discrete Mathematics.*** This course is an introduction to discrete mathematics, emphasizing proof and abstraction, as well as applications to the computational sciences. Topics include sets, relations, and functions, graphs and trees, algorithms, proof techniques, and order of magnitude analysis, Boolean algebra and combinatorial circuits, formal logic and languages, automata, and combinatorics, probability, and statistics. *Co-requisite MATH-SHU 121 or MATH-SHU 201. Equivalent to MATH-UA 120.*

**ECONOMICS**

**ECON-SHU 1** ***Principles to Macroeconomics*.** Focuses on the economy as a whole (the "macroeconomy"). Begins with the meaning and measurement of important macroeconomic data (on unemployment, inflation, and production), then turns to the behavior of the overall economy. Topics include long-run economic growth and the standard of living; the causes and consequences of economic booms and recessions; the banking system and the Federal Reserve; the stock and bond markets; and the role of government policy. *Prerequisite: None.*

**ECON-SHU 10 *Intermediate Microeconomics*.** Rigorous examination of consumer choice, profit-maximizing behavior on the part of firms, and equilibrium in product markets. Topics include choice under uncertainty, strategic interactions between firms in noncompetitive environments, intertemporal decision making, and investment in public goods.  Prerequisites: Principles of Microeconomics or Microeconomics for Business or for students who entered NYU-SH pre Fall 2015 Microeconomics and either Calculus or Mathematics for Economics.

**ECON-SHU 225 *Advanced Economic Theory.*** Designed to introduce students to some of the main model-building techniques that have been developed by microeconomists. Intended for advanced undergraduates who have taken the necessary preparatory courses in economics and mathematics. Any of the following three basic topics may be covered. The first topic is the static theory of consumer behavior both in a certain world and in an uncertain world, including game theory. The second topic is the theory of general equilibrium. The third topic is the theory of dynamic optimization. In addition to the coverage of the economics, the advanced mathematical techniques that are needed to understand the material are reviewed. *Prerequisites: Intermediate Micro AND (Math for Econ 1 OR Multivariate Calculus).*

**ECON-SHU 238 History of Modern Economic Growth: Exploring China From a Comparative Perspective.** The course introduces the history of modern economic growth, with a special focus on China. It will be organized around two main themes: the Industrial Revolution and the Great Divergence. To understand why some nations became developed but the others failed, this course tries to analysis the important evidences and theories about how institution, geography, technology and culture shape the long-term economic development. The class will first focus on how did modern economic growth take place and spread worldwide; and then we move to apply these frameworks to China and explore the historical trajectory of the rise of China. *Prerequisite: None.*

**ECON-SHU 301 *Econometrics.*** Examines a number of important areas of econometrics. The topics covered include identification and estimation of simultaneous equations models; model specification and testing; estimation of discrete choice models; and the analysis of duration models. In addition to covering the relevant theoretical issues, the course includes the application of these methods to economic data. *Prerequisite: MATH 233 OR MATH 150 OR BUSF 101.*

**ECON-SHU 342 *Behavioral Economics*.** This course explores the effects of psychological factors on economic behavior. We will analyze the observations from the real world that cannot be well explained by classical economic models, and enrich the standard model by incorporating psychological phenomena, such as bounded rationality, loss aversion, time inconsistency and social preferences. We will present both theoretical models and empirical evidence from experiments or real world data. Applications include marketing, asset pricing, game theory, consumption and savings, and public policy. Prerequisites: Intermediate Microeconomics and Econometrics.

**GLOBAL CHINA STUDIES**

**GCHN-SHU 110 *The Concept of China.*** From the Warring States period to the present, what have Chinese and others understood to be the meaning of “China,” and what have been the broad implications of this understanding? This course is divided into four chronological periods: Antiquity—from the period of the ‘central kingdoms’ to the formation of the early empire; Middle Period—China Among Equals; Early Modern: 1350-1910—China, Global Trade, and Imperialism; Modern: 1910-present—China Redux. *Prerequisite: None.*

**GCHN-SHU 164 *The Stuff of Legends: The Many Meanings of the Early Silk Road(s)***. Much has been said and written about ‘The Silk Road’ since Ferdinand Freiherr von Richthofen coined the term in 1877. Fostered by spectacular finds made by so-called ‘explorers’ such as Sir Aurel Stein, Paul Pelliot, Sven Hedin and others it quickly became the subject of countless museum exhibitions and legends. In times when almost any location – virtual or real – is but one mouse click away, the catchphrase ‘Silk Road’ has not lost any of its original appeal. Quite the contrary, the term is almost ubiquitous in all kinds of media. Yet, it is never quite clear what exactly the Silk Road concept really entails. What does it mean to you, for instance? Searching for an answer, you will encounter numerous websites, books, scholarly and popular articles, or TV documentations that seek to unravel its many mysteries and even travel agencies that aim at revealing its myths. By consulting archaeological as well as written sources this course is going to evaluate all aspects of early Silk Road history – trade, travel, war, religion, ideologies, and cultural exchange – from its earliest age through the Mongolian Era (13th century). The main goal is, however, not to look at every aspect in isolation as it is often done, but to bring them all together. This way it will become clear that actual reality was considerably more complex than is generally claimed. Only the interplay of several factors allowed The Silk Road to become a pre-modern ‘success story’ probably only rivaled by the internet. Prerequisites: None.

**GCHN-SHU 243 *Chinese Environmental Studies***. How and why has the understanding of humans’ relationship to nature changed in China, and how effectively has the Chinese state responded to environmental challenges at the local, national and global levels? Examines changing approaches to resource exploitation and sustainable development taking into account the impact of different political frameworks. Prerequisite: None.

**HIST-SHU 208 *War and Peace: Europe Since 1900*.** This course will provide a broad introduction to the political, social and cultural history of Europe since 1900. The location of the most violent conflict in human history during the first half of the twentieth century, Europe’s postwar development was based on a principle of peace through prosperity and the political ideal of an ‘ever closer union’. In recent years, however, the combined economic and migrant crises have put this postwar consensus to a test. Taking the continent’s delicate union as its central concern, the seminar will familiarize students with key themes, methods and problems in Modern European History. Structured chronologically, individual sessions will examine European modernity and fin-de-siècle culture; empires and colonialism; the causes, experiences and effects of the First and Second World Wars; the Holocaust; Europe’s role in the Global Cold War; the crisis-ridden 1970s; and the crucial question of whether a distinctive European identity has developed over time.

**HIST-SHU 225 *The Global Space Age.*** Over the course of the twentieth century the infinite void that surrounds planet Earth has stimulated the human imagination as never before. For several decades, anticipation of human spaceflight was intimately bound with futuristic visions of techno scientific progress, while space exploration became key to societal self-images. This course charts the rise and fall of the Age of Space from a global perspective. Individual sessions will be devoted to the ‘rocket fad’ of the Weimar Republic, Nazi ‘wonder weapons’, the so-called Sputnik shock and the American moon landings, as well asproviding an introduction to the historical origins of techno-nationalism, from the Cold War to today’s Space Race in Asia.

**HIST-SHU 312 *China Encounters the World.*** This is a lecture course on China’s encounters with the world in the late 19th and 20th centuries. The course analyzes the age-old Chinese “Central Kingdom” self-image and how the image was overturned during modern times in face of Western and Japanese challenges; it explores the Chinese “victim mentality” and its impact on China’s modern international experience; it examines China’s foreign policy issues in the context of its political, economic, social and cultural developments in broader terms; it also pays special attention to the role of “human agencies” in the shaping of historical processes.

**INTERACTIVE MEDIA ARTS**

**INTM-SHU 101 *Interaction Lab.*** In this foundation course students will be asked to think beyond the conventional forms of human computer interaction (i.e. the keyboard and mouse) to develop interfaces that consider the entire human body, the body’s capacity for gesture, as well as the relationship between the body and its environment. Students will learn the fundamentals of electronics and programming as they build projects using the Arduino microcontroller platform. Arduino is a small computer based on open source hardware and software. When used in conjunction with various sensors and actuators, Arduino is capable of gathering information about and acting upon the physical world. In addition to these physical computing techniques, students will also learn to harness the methods of traditional computation. The fundamentals of programming: variables, conditionals, iteration, functions, arrays and objects, will be explored using the Processing programming language. Processing has a simplified syntax and approachable computer graphics programming model, making it an ideal platform for first-time programmers. Students will gain a deeper appreciation of the expressive possibilities of computation as they learn to author their own software, and not simply use that which has been provided to them. Additional topics will include algorithmic drawing and animation techniques, digital modeling and fabrication, data exchange, manipulation, and presentation, as well as control of images, audio and video, including computer vision techniques. Structured weekly exercises are aimed at building specific skills, however students are free to pursue their own diverse interests in their midterm and final projects.
*Elective Category: Electronics & Physical Computing if counted as an elective.*
*Prerequisite: None*

**INTM-SHU 110 *Application Lab*.** In this foundation course students will be exposed to current trends and provocative topics at the intersection of interactive media and business, and they will be asked to produce project-based responses to the challenges posed to them by guest speakers, taken from readings, and as a result of critical dialog. Throughout the semester students will be introduced to emerging business models and trends including open source. User experience design, user testing, agile development methods, source code control, as well as computer programming fundamentals will be the focus of the first third of the semester. HTML, CSS, and JavaScript (including: variables, conditionals, iteration, functions, arrays, objects and data structures) will be introduced then. Rapid mobile application development frameworks will be the topic of the middle third, and application programming interfaces (APIs), microcontrollers, sensors, and actuators, as well as Internet of Things (IoT) platforms, will be the vehicles for student exploration in the final third. The role and value of collaboration will be better appreciated as students learn to face the challenges and benefits of group work. Students will be expected to produce a series of iterative projects that establish their newfound understanding of the topics introduced to them. This is a required course for the IMB Major.
*Elective Category: Business of Emerging Media if counted as an elective.
Prerequisite: None*

**INTM-SHU 120 *Communications Lab.*** In this foundation course, designed to provide students with a framework to effectively communicate through digital means, students will explore the possibilities of digital media by successively producing projects that make use of digital images, audio, video, and the Web. Students learn in a laboratory context of hands-on experimentation, and principles of interpersonal communications, media theory, and human factors will be introduced in readings and investigated through discussion. Students will learn the principles of digital imaging, recording and editing audio and video, and the basics of fundamental web languages HTML, CSS and JavaScript, in order to establish a diverse digital toolkit. Both traditional and experimental outputs, including online and interactive media platforms, will be explored. Weekly assignments, group and independent projects, as well as project reports and documentation will be assigned in each of the core areas of study. *Elective Category: New Media & Entertainment if counted as an elective.
Prerequisite: None*

**INTM-SHU 214 *User Experience Design*.** User Experience Design (UXD) is a design process focused on producing interactive products and systems that provide a high level of satisfaction to users through concern for human factors such as ergonomics, accessibility, and usability. User experiences unfold over time, and can be crafted to an extent, however a user’s will and other unpredictable circumstances together shape the final outcome. Students in this class will critique existing projects, products, and services, and learn to create more successful user experiences based on real-world development processes, in addition to the application of industry standard techniques and tools. Students will create design concepts and mockups, develop user personas, wireframes, user experience sketches and flows, and ultimately video prototypes. While UXD principles are most often used to create commercial products such as hardware devices and software applications, the concepts and skills prove equally useful in the development of participatory art and performance projects.
*Elective Category: Art & Design*

**INTM-SHU 221** ***Creating Immersive Worlds.*** This introductory course will focus on building virtual worlds and understanding what makes them compelling experiences for others. Throughout the course, students will become familiar with critical concepts such as play testing and object-oriented programming in addition to developing proficiency in software tools such as Unity (3D game engine), Blender (3D modelling), Adobe Photoshop (texturing) and GitHub (source code control). Students will work in collaborative teams to create interactive virtual worlds.

*Elective Category: New Media & Entertainment*

*Prerequisite or Corequisite:  Application Lab, Communications Lab or Interaction Lab*

**INTM-SHU 235A *Topics in Art & Design: Exhibition Next*.** What is an exhibition in a museum of today and how should it be experienced? What is its role in society? How does it engage the audience of tomorrow? This class will explore how emerging technologies can be applied to museum and exhibition design to enhance a museum visitors’ experience. Class discussions will include topics and themes such as curatorial practices, public space, content and form, audience and environment, meaningful interfaces and interactive experiences in a museum context. The course will begin with visiting and immersing students in various museums, art spaces, and exhibitions in Shanghai. Students will explore and research on the functions of a museum as an institution to public audiences. Through museum visits, students will write observations of each trip based on their own experience to design a “better” museum or exhibition as their final project. Students will work in a team or individually to design their own exhibition through the design process of submitting a museum proposal, building a demonstrated diorama and writing a museum manifesto, etc. By the end of the course, students will install and present their work in various mediums*.
Elective Category: Art & Design
Prerequisite: None.***INTM-SHU 239 *Digital Fabrication*.** Digital Fabrication is the process of using design of modeling software to generate digital files which can then be physically produced through a variety of methods, including laser cutting, 3D printing and computer numeric control (CNC). The ability to fabricate directly from our computers or design files used to be an exotic and expensive option not widely available, but recent changes within this field have brought these capabilities to within our reach. In this class students will learn how to design and model for and to operate fabrication machines. Emphasis will be put on designing functional parts that can fit into a larger project or support other components as well as being successful on a conceptual and aesthetic level. In this class students will discover methods to design and model using computer aided design (CAD) software. We will then utilize computer aided manufacturing (CAM) software to generate instructions that various machines can follow to fabricate our designs. We will also look at methods for 3D scanning, data manipulation and conversion, mold making, as well as printed circuit board (PCB) fabrication.

*Elective Category: Art & Design*

*Prerequisite or Corequisite: Application Lab, Communications Lab or Interaction Lab*

**INTM-SHU 265 *Topics in Digital Humanities & Social Sciences: Acoustic Ethnography of the Yangtze River Delta.*** We live in a world immersed in sound yet we rarely attend to how sound can reflect our social structure or reveal cultural meaning. This course introduces students to acoustic ethnography, soundscape studies and narrative, non-narrative audio storytelling. We will gather and analyze the acoustic environment of China, using them to create ethnography through text and sound. Ethnography (literally, “culture-writing”) is both the act of gathering data about culture through observation and interviews as well as the practice of writing analytically about cultural difference. Visual ethnography incorporates the analysis of visual and material aspects of our social environment into creative, multimedia rich projects. With an ethnographic approach to sound, we will document the rich tapestry of sounds around us, in the context of the Yangtze River Delta region and think about how this conveys China’s culture, society and history. Through lectures, discussion, readings, listening assignments, field studies and projects, we will re-learn how to listen, observe and record the sounds in our environment. We will study Chinese sound art and Chinese cultural productions in music, film, television and multimedia installation. We will contextualize Chinese sound art against major theoretical approaches to sound including archives and preservation, form vs. content, and social studies of science. Students will work collaboratively or individually on a final project that combines sound recording and production, to create an ethnographic analysis of an aspect of social and cultural life in the Yangtze River Delta region. Students will gain experience in gathering ethnographic data and transform it into an analytical or creative project integrating, sound art and text. Prior knowledge to sound editing and Chinese language is not required.

*Category: Digital Humanities & Social Sciences*

*Prerequisite: None*

**INTM-SHU 280D *Topics in New Media & Entertainment: Realtime Audiovisual Performance Systems (RAPS).***From the history of visual music and abstract film to the contemporary notion of live cinema, this course will be an exploration of the synesthetic relationship between sound and visuals in a realtime performance setting. Dating back as far as the 18th century, systems have been invented to produce images alongside music linking the two through formalized arrangements. Current media technologies make developing such systems both more approachable and more expansive in their scope. Through readings, viewings, and case studies students will gain an understanding of the history and theory of live audiovisuals. During the course students will team up to develop and master a realtime audiovisual system of their own invention. The class will culminate in a show in which they will present their work through a live performance.
*Elective Category: New Media & Entertainment*

*Prerequisite: None*

**INTM-SHU 280E *Topics in New Media & Entertainment: Aesthetics for New Realities*.** A workshop course in which teams of students will develop new works by exploring how new forms of media such as virtual, augmented and mixed reality are platforms for new aesthetic possibilities. Digital cinema, computer games, virtual reality and augmented reality share many common methods in the production of their content, with default assumptions about how they differ from each other. Approaching this as a range of expressive possibility gives a basis for more original and thoughtful approaches, including those that are less defined by existing categories as well as those that are more innovative within categorical norms. New ways of making cinema should lead to new kinds of expressions, while the emergence of virtual reality needs aesthetics that evoke more of its possibilities than the recapitulation of cinematic story-telling or video game interactivity. This class will use an iterative process of ideation and prototyping as it engages and develops the methods of narrative, interactivity, immersion, experience, imagination, spatiality and temporality. Readings and lectures will provide context with the history of art, literature, music.

Elective Category: New Media & Entertainment

*Prereq: App Lab, Comm Lab, Inter Lab, Creating Immersive Worlds or AR/VR Fundamentals*

**INTM-SHU 284*****Digital Sculpting for Facial Animation.***This 14-week course breaks down into 4 stages : 1. basic topology of head model (student’s profile photos as reference), 2. high-poly sculpting and projection texturing, 3. blend shapes animation, 4. final project. In the final project, students get to choose either lip-sync animation or conceptual piece utilizing the created head models. The course covers digital modelling / sculpting techniques including polygonal modelling, digital sculpting and blend-shape facial animation. Overview of digital editing / compositing and sound design will also be introduced to assist with students’ final project at the end of the semester. Category: New Media & Entertainment.  *Elective Category: New Media & Entertainment
Prerequisite: None*

**INTIM-SHU 288 *Kinetic Interfaces.***Students in this course will use computer vision and motion tracking tools and techniques to create kinetic interfaces that exploit the body’s capacity for movement to control software and hardware systems. The applicability of kinetic interfaces to practical as well as creative applications will be investigated as students are challenged to design their own solutions. Webcams, the Leap Motion Controller and the Microsoft Kinect will all be considered as input devices. Students will be introduced to the topics of pixel manipulation, as well as face, hand, blob and skeletal tracking. And Projection mapping, a technique that turns surfaces within an environment into dynamic display surfaces, will be explored as an output method. New Category: Physical Computing & Experimental Interfaces.
*Elective Category: Computation & Data*
*Prerequisite: Application Lab, Communications Lab or Interaction Lab*

**INTM-SHU 295-001 *Digital Media & Culture.*** Born Digital, Growing Up Digital, Teaching Digital Natives, Understanding the Digital Generation ... these are just some of the titles in a veritable explosion of guidebooks on how thinking, learning, and doing have changed in a world transformed by digital, networked, and social media. In this course, we take a close look at the theories and prophecies on the "Net Gen" and "iGen," and we think critically, contextually, and historically about the ways in which new media forms and practices shape identity, community, sociality, creativity, privacy, civic engagement, and everyday life.

*Category: Seminar*

*Prerequisite: None*

**JOUR-SHU 9202  *Methods and Practice: Journalism.*** It provides an introduction to the work of the reporter, with particular focus on covering China, and offers students a chance to learn and practice basic journalism skills, including news writing, descriptive & feature writing, and writing for TV etc. Feedback on assignments is given in individual meetings.  Visiting speakers and field trips also offer insights into the role of the journalist and the challenges faced. Prerequisites: None.

**LIT-SHU 101 *Foundations: What is Literature*?**This course provides an introduction to literary theories and methodologies. We will analyze such different approaches to literary expressions as classical, modern, structuralist, post-structuralist approaches; Marxist, colonial and post-colonial approaches, including feminist and post-human methodologies for different literatures. The course will emphasize the shifts and turns in these approaches. The aim is to acquire knowledge of a variety of literary approaches at work when reading literature and of the relationships between text, author, writing and audience.

*Prerequisites: None.*

**MATHEMATICS**

**MATH-SHU 233 *Theory of Probability.*** This course is an introduction for mathematics majors to the mathematical treatment of random phenomena occurring in the natural, physical, and social sciences. Topics covered include axioms of mathematical probability, combinatorial analysis, the binomial distribution, Poisson and normal approximations, random variables, probability distributions, generating functions, and Markov chains and their applications. *Prerequisite: Grade of C or better in MATH-SHU 123 (Multivariable Calculus) and 140 (Linear Algebra). Not open to students who have taken MATH-SHU 235 (Probability and Statistics).*

**MATH-SHU 234 *Mathematics of Statistics and Data Science Part 1.*** This course is the first part of an introduction to the mathematical tools of modern statistical analysis and of data-science. This class asks for a good prior understanding of probability theory, of calculus and of linear algebra. In this first part, we will cover the core concepts of statistics, both from the Bayesian and the classical or frequentist point of views. We will use the book by Larry Wasserman "All of Statistics”. We will assume that Part I on Probability is known (Chapters 1 to 5), and cover Part II on Statistical Inference, and some of Part III on Statistical Models and Methods, i.e. the Bootstrap, Parametric Inference, Bayesian inference, Hypothesis testing, Statistical Decision Theory, Linear and Logistic Regression, and possibly a light introduction to Graphical Models and Classification. This class should be followed by a second class in the Spring 2019 centered on some of the mathematical questions raised by the high-dimensional aspects of statistics and data science, and in particular by machine learning. *Prerequisite: Grade of C or better in MATH-SHU 121 (Calculus), 140 (Linear Algebra) and 233 (Theory of Probability).*

**MATH-SHU 235 (formerly 150) *Probability and Statistics.*** This course comprises a combination of the theory of probability with techniques of modern statistical analysis. It is designed to acquaint the student with both probability and statistics in the context of their applications to the sciences. In probability: mathematical treatment of chance; combinatorics; binomial, Poisson, and Gaussian distributions; law of large numbers and the normal distribution; application to coin-tossing, radioactive decay, and so on. In statistics: sampling; normal and other useful distributions; testing of hypotheses; confidence intervals; correlation and regression; and applications to scientific, industrial, and financial data. *Prerequisite: Grade of C or better in MATH-SHU 121 (Calculus). Not open to students who have taken MATH-SHU 233 (Theory of Probability).*

**MATH-SHU 265 *Linear Algebra and Differential Equations*.** This course is an introduction to linear algebra and ordinary differential equations. Topics covered include the fundamental concepts of linear algebra such as matrix theory, determinants, vector spaces, subspaces, basis, linear transformations, eigenvectors, eigenvalues and the inner product spaces, as well as the fundamental techniques of ordinary differential equations such as first order differential equations, linear differential equations and systems. *Pre-requisite: Grade of C or better in MATH-SHU 121 (Calculus).*

**MATH-SHU 329 (formerly 203) *Honors Analysis II*.** This course is a continuation of Analysis I, with emphasis on functions of several variables. Topics covered include Euclidean spaces, continuity of function of several variables, partial derivatives, differentiability, extrema, Lagrange multipliers. It introduces the ideas of Lebesgue integration,  multiple integrals, change of variable, line integrals, and the formulas of Green in two and three dimesions. *Prerequisite: Grade of C or better in MATH-SHU 328 (Honors Analysis I) and MATH-SHU 141 (Honors Linear Algebra I).*

**MATH-SHU 362 *Honors Ordinary Differential Equations.*** This course introduces the main ideas of ordinary differential equations, with a particular emphasis on proofs, in comparison with the course MATH-SHU 262. It will cover vector fields, proof of local existence and uniqueness of solutions of first-order differential equations by Picard’s fixed point iteration, stability, higher order linear differential equations and their set of fundamental solutions (with proof of characterisation by the Wronskian), series solutions of second order linear differential equations (ordinary points, proof of Fuchs Theorem, regular singular points and indicial equation), Laplace transform and numerical methods, nonlinear systems, boundary value problems. *Prerequisite: Grade C or better in MATH-SHU 121 (Calculus). The course MATH-SHU 140 (Linear Algebra) is also highly recommended.*

**MGMT-SHU 301 *Management and Organizations*.** This course addresses contemporary management challenges stemming from changing organizational structures, complex environmental conditions, new technological developments, and increasingly diverse workforces. It highlights critical management issues involved in planning, organizing, controlling, and leading an organization. Ultimately, it aims to strengthen students’ managerial potential by providing general frameworks for analyzing, diagnosing, and responding to both fundamental and complex organizational situations. It also provides opportunities for students to enhance their communication and interpersonal skills, which are essential to effective management. The structure of the course encourages learning at multiple levels: through in-class lectures, exercises, and discussions; in small teams carrying out projects; and in individual reading, study, and analysis. *Prerequisite: None.*

**MKTG-SHU 1 *Introduction to Marketing.*** Evaluates, from the management point of view, marketing as a system for the satisfaction of human wants and a catalyst of business activity. Deals with the subject at all levels, from producer to consumer, and emphasizes the planning required for the efficient use of marketing tools in the development and expansion of markets. Concentrates on the principles, functions, and tools of marketing, including quantitative methods. Utilizes cases to develop a problem-solving ability in dealing with specific areas. *Prerequisite: Academic level should be greater than freshmen.*

**MKTG-SHU 2 *Consumer Behavior*.** This course presents a comprehensive, systematic, and practical conceptual framework for understanding people as consumers—the basic subject matter of all marketing. It draws on the social sciences to evaluate the influence of both individual and ecological factors on market actions. Students discuss relevant psychological and sociological theories and study how they can be used to predict consumers' reactions to strategic marketing decisions. Basic methodologies for research in consumer behavior are developed and applied. Course emphasis is on developing applications of behavioral concepts and methods for marketing actions.

**MKTG-SHU 3 *Advertising Management.***This course provides students with a comprehensive framework and tools to understand the advertising process and to appreciate managerial and theoretical perspectives in advertising. It tackles the stages in developing an advertising plan- from analyzing the situation and defining clear advertising objectives to execution. Students learn tools related to various skill areas in advertising, including account planning, media planning and buying, and copywriting/art direction, while developing a broader appreciation of how each skill area fits into the overall structure of the advertising process. Coursework involves a comprehensive group project that utilizes learning in all functional areas of advertising, while simulating the development of an advertising campaign. *Prerequisite: Intro to Marketing (MKTG-SHU 1)*

**MKTG-SHU 9 *Research for Customer Insights*.** This course provides students with both research and managerial perspectives in the development and application of marketing research tools and procedures. It describes the development of research designs from problem formulation to analysis and submission of the research report. It also covers the analysis of techniques in marketing research, such as focus groups, experimental design, surveys, sampling, statistical analysis, and reporting. Cases are utilized in the development of methods and in specific areas of application.

**MKTG-SHU 57 *Digital Marketing*.**Provides an introduction to fundamental concepts in digital marketing. Students will learn through business case studies reflecting recent frameworks in the field, and in-class exercises on metrics and methods for evaluating the success of digital marketing. Students will also explore the psychology of virality and social influence in digital contexts. *Prerequisite: Intro to Marketing*.

**NEURAL SCIENCE**

**NEUR-SHU 201 *Introduction to Neural Science.***An introductory lecture course covering the fundamental principles of neuroscience. Topics will include: principles of brain organization; structure and ultrastructure of neurons; neurophysiology and biophysics of excitable cells; synaptic transmission; neurotransmitter systems and neurochemistry; neuropharmacology; neuroendocrine relations; molecular biology of neurons; development and plasticity of the brain; aging and diseases of the nervous system; organization of sensory and motor systems; structure and function of cerebral cortex; modeling of neural systems. *Prerequisite: BIOL-SHU 22 (Foundations of Biology II) or permission by the instructor.*

**NEUR-SHU 265 *Neural Bases of Speech and Language.*** How does our brain work to enable us to speak and understand language? Are there special parts of the brain dedicated to speech and language? What is it like to be abnormal at speech or lose language? This course provides an introduction of the neuroscience research of speech and language, and interdisciplinary field at the heart of human cognitive neuroscience. Lectures cover basic aspects of language processing in the healthy brain, ranging from early sensory perception to higher level semantic interpretation, as well as a range of neurological and development language disorders, including aphasias, dyslexia, and other speech and language impairment. Functional neuroimaging and electrophysiological techniques will be introduced. The goal of this course is to let students acquire basic knowledge of neurolinguistics, as well as familiarise the ideas of interdisciplinary research in the intersection of cognitive science and neuroscience. *Prerequisite: None.*

**PHIL-SHU 70 *Logic.*** This is an introductory course in formal logic. No prior knowledge of logic, mathematics or philosophy will be assumed. We will study a number of logical systems, and learn some methods for producing derivations and determining validity in these systems.  We will also learn how to translate sentences and arguments from ordinary language into these systems, and examine some applications of logic to traditional philosophical problems. *Prerequisite: None.*

**PHIL-SHU 150 (formerly HUMN-** **SHU 203) *Central Problems in Philosophy.*** Albert: This course is an introduction to the problems and methods of contemporary philosophy. Topics may include: 1. What is the relationship between mind and body? 2. Can belief in the existence of the external world be justified? 3. Are there any good arguments for the existence of God? 4. Can we act freely if everything that we do is determined by laws of nature? 5. Is there a theory of how we ought to live?  *Prerequisite: None.*

**PSYC-SHU 101 *Introduction to Psychology*.** This course highlights the fundamental principles and interesting experiments within the field of psychology, aiming to help students understand mind and behavior of themselves and others. It provides a comprehensive overview of scientific study of thought and behavior, covering a wide range of topics such as the biological and evolutionary bases of behavior, sensation and perception, learning, memory, intelligence and thinking, lifespan development, emotion and motivation, human personality, social behavior, behavioral disorders, and psychological treatment of disorders. Opportunities to apply knowledge gained in class are available through various in-class and out-of-class activities.  By the end of this course you will have gained a much better understanding and appreciation of who you are and how you work. *Prerequisite: None.*

**PSYC-SHU 329 *Parenting and Culture*.**Examination of parenting views & practice across socio-cultural groups, discussion of similarities & differences in parenting around the globe, how parenting changes over the life course of the child, & how parenting shapes children’s development. *Prerequisite: PSYC-SHU 101.*

**PSYC-SHU 352 *Psychology of Human Sexuality.*** The course provides an overview of empirical research into the psychology of human sexuality. The course surveys findings from basic research, theories regarding human sexuality, sexual functioning and its psychological correlates, and clinical research into sexual problems and their treatment. Topics covered include psychological aspects related to sexual and gender minorities, including affirmative counseling approaches for LGBTQ individuals; current scientific understanding of sexual variations as well as sexual harassment and coercion; sex as a commodity; and psychological aspects related to HIV/AIDS and its prevention. The study of human sexuality is inherently multidisciplinary as sexuality is a biopsychosocial phenomenon. Even though the course focuses on the psychological level of analysis, cultural, societal and legal aspects related to sexuality in a global context are relevant to many of the topics covered. As an example, we explore the topic of sexual racism/racial fetishism as well as legislation related to sexuality in different societies. *Prerequisite: PSYC-SHU 101.*

**SOCIAL SCIENCE**

**SOCS-SHU 160 *Introduction to International Politics.*** What are the causes of war?  Why are some countries able to cooperate over issues like trade or the environment, while others are not?  What is the role of international organizations and alliances, such as the UN, NATO, and the EU in the international state system?  This course will give students an introduction to thinking analytically and systematically about outcomes in the international system, will teach them the prevailing major theories about these issues, and will equip students to begin to formulate their own answers to these questions.  Students will learn a set of formal tools to analyze complex world events, which will prepare them for upper level international relations and other social science courses, as well as to become comfortable applying social science methodologies and theories to better understanding the world around us.  The class will use some basic math, including introductory game theory, and some background in inferring statistical results will be helpful, but is not required. Over the course of the semester students will be challenged to apply the models and theories from class to real world situations. *Prerequisite: None.*

**SOCS-SHU 170 *Introduction to Global Health.*** This course provides an introduction to current challenges in global public health. The central concepts and tools will be introduced, and health policies and health systems will be analyzed in different environments. We will discuss the role of demographics, geography, and socio-economic factors like income, resources and infrastructures disparities. We will discuss in depth a few important case studies, such as the rise of life expectancy and the epidemiological transition, and aging and global health, underline the role of environmental factors in global health, and discuss the new trends of global health for the immediate future.

*Prerequisite: None.*

**SOCS-SHU 241 *Cultures of Business and Work*.** Anthropologists often study the unfamiliar cultural practices of marginalized people in faraway corners of the world. But what happens if we turn an analytical eye to powerful corporations, small businesses, and the workaday world of middle-income people as well? In this course we examine cultures of business – the norms, values, and unwritten rules of workplaces. We explore why factory floors in China are laid out how they are, why Japanese businessmen have to sing karaoke after work to get promoted, and why Silicon Valley success stories follow familiar narratives. In order to understand these diverse business settings, we examine major analytical approaches to business and work that focus on political economy, race, ethnicity, and gender. Throughout the class, we discuss what “corporate culture” and “office culture” mean, and consider the implications of this for anthropology’s longstanding investigation into “culture” more broadly. Through seminar discussions, current event presentations, and a final case study paper, students develop their own analytical perspectives on business and work. *Prerequisite: None.*

**SOCS-SHU 245 *Ethnographic Thinking*.** While ethnography––literally “to write” (grapho) “people” (ethnos)––has become synonymous with anthropology, it signifies a range of research methodologies widely used within the social sciences. The course considers discussions and debates about ethnographic research, ethics, and representation within the social sciences and beyond. The readings survey ethnographic theory and practice through a number of conceptual and methodological domains, including the problems they raise. Course topics are: objectivity, critiques of representation, participant-observation, cultural relativism, ethno-history, archives, conflict, interpretation and discourse analysis, verifiability, and life histories. *Prerequisite: None.*

**SOCS-SHU 270 *Social Change in Contemporary China*.** This course surveys post-1949 Chinese society, focusing on socioeconomic changes since 1978. It draws from scholarly work on China in sociology, economics, and political science. It explores the basic institutional make-up of Chinese society, the structural changes brought forth in the economic reform era, and how these institutions configure social life in contemporary China. Attention is paid to both changes from and continuities with the pre-reform past. After taking this course, students will be equipped with background information necessary to understand China’s complex economic, political, and social phenomena, and the impact of reform on social structures/institutions, individuals’ life chances, and social relations in contemporary China. *Prerequisite: Successful completion of GPS, or instructor’s permission.*

**SOCS-SHU 272 *The U.S. Constitution: Is It relevant to China?*** This course covers some basic political concepts and legal doctrines lying at the foundation of the United States’ Constitution, with the goal of assessing whether and to what extent these concepts and doctrines are relevant to China.  The basic American concepts include the ideas of popular sovereignty and inalienable individual rights (in particular, freedom of speech), federalism, and separation of powers. The basic doctrines include judicial review to enforce the Constitution against “political” actors; Executive powers to act in the absence of, and interpret, legislation; limits on the legislature’s power to enforce legislation; and the duty of subnational officials to extend the equal protection of the laws to all citizens, regardless of race or geographic origin.  In addition to examining these ideas using American sources, we will also apply them to present-day controversies in China, examining whether these American ideas might improve governance by Chinese officials or inform the interpretation of the Chinese Constitution. Students will be divided into two teams, one team supporting and the other team opposing the use in Chinese law and politics of some version of an American constitutional concept or doctrine. The teams will hold oral arguments, and each team member will submit four briefs of roughly 1,250 words each, attacking or defending four American positions arguing their team's positions on topics ranging from the powers of the Supreme People’s Court to engage in judicial review to the powers of the Chinese executive to detain citizens without judicial process.  Underlying both the discussion of American law and its application to Chinese controversies is a broader question: How is it possible for any law -- mere words on a piece of paper -- practically to control the actions of very powerful political actors like members of Congress, state legislatures, governors, Presidents, and judges? *Prerequisite: None.*

**SOCS-SHU 339 *Comparative Revolutions*.** Why do some countries experience revolution?  What differentiates a revolution from a civil war, military coup, or foreign invasion? Importantly, how do various factors or variables come together to create revolution and can these constitute a generalizable theory of the emergence of revolution? This course is based on the study of revolutions in the modern context. Also, the course will hone your skills in social science writing, in qualitative comparative methods, and in theory building. We will define revolution and examine competing theories about its causes, outcomes, and processes. While examining the cases of France, Russia, and China, we will be particularly concerned about explaining why revolution occurs. We will then consider how more contemporary cases challenge or support those theories, focusing on the case of Iran and expanding the study to other cases while considering examples that might not fit our definition of revolution. As states face tumultuous change, the study of social movements and revolutions becomes particularly salient for both comparative politics and international affairs. *Prerequisite: SOCS-SHU 160 or SOCS-SHU 150*.

**SOCS-SHU 341 *Cross-Strait Relations*.** The relationship across the Taiwan Strait has been a source of tension in East Asia for decades, not only between Taiwan and mainland China, but also as a potential flashpoint in the relationship between China and the United States. Furthermore, Taiwan’s geostrategic position and territorial claims make it of interest to other states in the region. This course aims to introduce students to the complex sources of these tensions and the dynamics of these relationships, all of which are rooted in the two sides' closely linked histories. Students in this course develop a strong grasp of the dynamics of the cross-Strait relationship, including the role of the U.S., while honing their critical thinking and analytical skills through focused discussions of the readings and an independent final paper project.

*Prerequisites: SOCS-SHU 150 Introduction to Comparative Politics or SOCS-SHU 160 Introduction to International Politics or GCHN-SHU 110 The Concept of China.*

**SOCS-SHU 350 *Empirical Research Practice*.** This is a hands-on course in conducting empirical research in behavioral and social sciences with a focus on quantitative methods. The course consists of two major components: First, students work in teams to address a research question provided by the instructor. The teams then plan a small-scale research project, collect empirical data, analyse the data and present the results in a Poster Session. Research projects can involve an experiment, a survey, an observational study or content analysis of empirical materials. The use of the internet as a data collection venue and source of raw materials to analyse is especially encouraged. Second, students write an individual research plan on a topic of their choosing. In some cases, the research plan can be further developed into a Capstone project. The teams are encouraged to make frequent use of instructor office hours for individual consultations.

*Prerequisites: Intro to Psych OR Environment & Society OR Intro to Comparative Politics OR Intro to International Politics (Intro to Psych recommended)*

**SOIM-SHU 65 *Organizational Communication and Its Social Context.*** Students learn how organizations communicate with multiple types of audiences, focusing on the interconnections between business and society. The course uses the stakeholder model of the corporation to introduce the strategic implications of communication for modern organizations. Students focus on strategic and tactical aspects of corporate communication to study and practice the ways in which organizations communicate to their varied internal and external stakeholders. Assignments develop students? abilities in speaking and writing to these varied audiences, both to inform and to persuade. The course emphasizes bridging theoretical fundamentals, and action learning is stressed, which includes applying communication strategy to the following: oral and written business assignments; presentation delivery techniques; visual communication analysis and practice; team communication.