

Bowdoin College Course Guide

Changes made in Polaris are normally reflected in the Course Guide within 24-48 hours. Email courses@bowdoin.edu with any questions regarding the Course Guide.

Information as of May 14, 2019 - Subject to change

<u>Subject</u>	<u>Page</u>
<u>Africana Studies</u>	3
<u>Arabic</u>	9
<u>Art</u>	10
<u>Asian Studies</u>	15
<u>Biochemistry</u>	22
<u>Biology</u>	23
<u>Chemistry</u>	28
<u>Cinema Studies</u>	31
<u>Classics</u>	33
<u>Computer Science</u>	37
<u>Digital and Computational St</u>	41
<u>Earth and Oceanographic Sci</u>	44
<u>Economics</u>	46
<u>Education</u>	50
<u>English</u>	52
<u>Environmental Studies</u>	58
<u>Gender, Sexuality and Women St</u>	64
<u>German</u>	68
<u>Government and Legal Studies</u>	70
<u>History</u>	78
<u>Latin American Studies</u>	85
<u>Mathematics</u>	89
<u>Music</u>	94
<u>Neuroscience</u>	130
<u>Philosophy</u>	132
<u>Physics and Astronomy</u>	134
<u>Psychology</u>	137
<u>Religion</u>	140
<u>Romance Languages and Lits</u>	143
<u>Russian</u>	149
<u>Theater and Dance</u>	151
<u>Independent Studies & Honors Projects</u>	158

Please click on the subject name to navigate to the corresponding course offerings.

Africana Studies

AFRS 1005 b. Women of Color in Politics. Chryl Laird. New Course. Fall 2019

Explores the significant roles that women of color have played in American politics and around the world. Begins with the US context, starting in the antebellum era and moving forward by reading biographies/autobiographies that provide voice to the experiences faced by women of color in both traditional and non-traditional political spaces. These include women of color as close confidants to male political figures (first ladies, wives, and mistresses) and as politicians, judges, activists, and revolutionaries. Then shifts to a more global context considering the perspectives of women of color in countries where they have championed gender equality and feminism, and where they have become powerful political actors. (Same as GOV 1005)

AFRS 1010 b. Deconstructing Racism. Theo Greene. . Fall 2019

Examines the social, political, and historical evolution of racism as a system and the challenges to studying and eradicating racism in contemporary American society. Investigates the construction of race, the various logics used to justify racial thinking, and the visible and invisible forces that perpetuate racial stratification and inequality in American life. Understands the various political and social debates that complicate and undermine how racism is defined and identified. Explores its impact on individuals, institutions, and cultures in the United States, and the various formal and subversive strategies deployed by individuals and collectives for challenging and combatting it. Emphasis on developing a language for discussing, debating, and writing about race and racism sociologically for public and academic audiences. (Same as SOC 1010)

AFRS 1026 c. Fictions of Freedom. Tess Chakkalalakal. New Course. Fall 2019

Explores the ways in which the idea of American freedom has been defined both with and against slavery through readings of legal and literary texts. Students come to terms with the intersections between the political, literary, and historical concept of freedom and its relation to competing definitions of American citizenship. (Same as ENGL 1026)

AFRS 1101 c-ESD. Introduction to Africana Studies. Judith Casselberry. Every Fall. Fall 2019

Focuses on major humanities and social science disciplinary and interdisciplinary African American and African diaspora themes in the context of the modern world. The African American experience is addressed in its appropriate historical context, emphasizing its important place in the history of the United States and connections to African diasporic experiences, especially in the construction of the Atlantic world. Material considered chronologically and thematically builds on historically centered accounts of African American, African diaspora, and African experiences. Introduces prospective Africana studies majors and minors to the field; provides an overview of the predominant theoretical and methodological perspectives in this evolving discipline; and establishes historical context for critical analyses of African American experiences in the United States, and their engagement with the African diaspora.

AFRS 1104 b-ESD, IP. Introduction to African Religions and Cultures. Brian Purnell. Proxy Instructor Listed for Registration. Every Other Fall. Fall 2019

By 2050 over one-quarter of the world's population will live in Africa, and yet African people, cultures, and religions are more misunderstood than any other. This course provides an introduction to the varied and diverse peoples and cultures of Africa, taking religion as the starting point for their ways of life. Rather than providing a survey of specific regions and populations, we will focus on broader categories such as cosmology, family and social structure, history, arts, gender and sexuality, and economics. We will examine the ways traditional forms of religion, Christianity, and Islam have played a fundamental role in shaping the realities of African societies as well as African diaspora traditions. This course is open to all students of all backgrounds and knowledge about Africa. (Same as REL 1104)

AFRS 1109 c-ESD. Black Women's Lives as the History of Africana Studies: Eighteenth and Nineteenth Century. Judith Casselberry. Tess Chakkalal. Non-Standard Rotation. Fall 2019

In conjunction with the 50th anniversary of Africana Studies at Bowdoin, this year long two-part course will address debates and issues of Africana Studies through the lives of Black Women. In part I, students will focus on Early Africana Studies texts, reading works by and about Phillis Wheatley, Sojourner Truth, Frances Harper, Ida B. Wells, and Anna Julia Cooper. We will take up differences and continuities between these thinkers to understand the politics of respectability, work, representation, sexuality, and family across multiple historical contexts. (Same as ENGL 1301, GSWS 1301)

AFRS 1213 c-ESD, VPA. Introduction to Caribbean Dances and Cultures. Adanna Jones. Non-Standard Rotation. Fall 2019

From the folkloric dance forms to popular and secular dance practices, this course journeys through various islands and countries of the Caribbean to learn about their various histories and cultures, including the music, costumes, and basic rhythms, associated with each particular dance form. This in-studio course provides a general introduction to some of the sacred and popular dances of the Caribbean. Although movement is the primary work of this course, what we learn in class may be supplemented by readings and outside research. Please note that no prior experience or training is required. Grading will not be based on technical skill levels, but on mindful, full-bodied participation that demonstrates comprehension and articulation of course materials. (Same as DANC 1213)

AFRS 1581 c-VPA. History of Jazz I. Tracy McMullen. Every Other Fall. Fall 2019

A socio-cultural, historical, and analytical introduction to jazz music from the turn of the twentieth century to around 1950. Includes some concert attendance. (Same as MUS 1281)

AFRS 2052 b-ESD. Race, Ethnicity, and Politics. Chryl Laird. Non-Standard Rotation. Fall 2019

Examines the impact of race and ethnicity on American politics. Key topics include the development of group identity and the mobilization of political activism. Also covers voting rights and representation, as well as impacts on education and criminal justice. Groups addressed include Native Americans, black Americans, Latinos, Asian Americans, and white Americans. (Same as GOV 2052)

AFRS 2236 c-ESD, VPA. Afro-Modern II: Technique. Adanna Jones. Every Other Year. Fall 2019

A continuation of modern dance principles introduced in Dance 1211 with the addition of African-derived dance movement. The two dance aesthetics are combined to create a new form. Technique classes include center floor exercises, movement combinations across the floor, and movement phrases. Students also attend dance performances in the community. (Same as DANC 2241)

AFRS 2360 c-ESD, IP. Recreating Africa: Diasporic Imaginings of Race and Space. Tara Mock. Non-Standard Rotation. Fall 2019

What does it mean to be African? Is the term bound by racial, ethnic, or spatial limitations? Who possesses the rights of access to the cultural products and expressions unique to the continent? The course focuses on how African and African-descended peoples remember and replicate Africa as cognitive object and cultural artifact. The course examines how the concept of Africa, as both home and identity, is recreated and imagined through diasporic perspectives. We will explore questions of home, identity, Afropolitanism, continuity, appropriation, authenticity, historical memory, and creolization using examples from academic scholars, literary figures, and popular culture on the African continent and throughout its many diasporas. In addition to literature and research, film, music, photography, and artwork will be used to develop a critical understanding of the many contemporary forms used to recreate Africa.

AFRS 2365 c-IP. The Rise of Swahili Civilization. David Gordon. Non-Standard Rotation. Fall 2019

Considers the millennium-old interactions between peoples of Africa, the Middle East, and South Asia that created Swahili civilizations stretching from Mogadishu to Madagascar. Themes include the rise of dhow-based maritime trade; the spread of Islam; the slave trade and slavery; Omani, Portuguese, British, Italian, and German colonialisms; late colonial conflicts including the Mau Mau rebellion in Kenya and the revolution in Zanzibari. Ends with the rise of the post-colonial states of Tanzania, Kenya, Mozambique, Madagascar, and Somalia, and rebel insurgencies such as Somali pirates and Islamic fundamentalism. Note: This course is part of the following field(s) of study: Africa. This course meets the non-European/US and pre-modern requirements for the History Major. (Same as HIST 2365)

AFRS 2384 c-ESD, IP. Deities in Motion: Afro-Diasporic Religions. Proxy Instructor Listed for Registration. Brian Purnell. Every Other Fall. Fall 2019

Religion has been central not only in the lives of members of the Black Atlantic World and also in terms of the formation of this world. This class provides a survey of some of the most prominent Afro-Atlantic diasporic religions such as Haïtian Vodou, Brazilian Candomblé, Trinidadian Shango, and Cuban Santería/Regla de Ocha and also explores the particular dynamics of the African religious diaspora. Complicating common assumptions about relations between diaspora and homeland as well as what constitutes a religion, it addresses issues of authenticity and authority, ancestrality, race, gender, transnationalism, and even problematic (mis)representations in Western society and pop culture. We will also pay close attention to the important and complicated role that the Transatlantic Slave Trade played in the formation of these Atlantic societies and aspects of these religious traditions such as conceptions of God and divinities, syncretism, divination, and spirit possession.

AFRS 2409 c-ESD, IP. Spoken Word and Written Text. Charlotte Daniels. Every Semester. Fall 2019

Examines oral and written traditions of areas where French is spoken in Africa, the Caribbean, Europe, and North America from the Middle Ages to 1848. Through interdisciplinary units, students examine key moments in the history of the francophone world, drawing on folktales, epics, poetry, plays, short stories, essays, and novels. Explores questions of identity, race, colonization, and language in historical and ideological context. Taught in French. (Same as FRS 2409, LAS 2209)

PREREQUISITE: FREN 2305 or higher or FRS 2305 or higher or Placement in FRS 2400 level

AFRS 2412 c-ESD, IP. Literature, Power, and Resistance. Meryem Belkaid. Charlotte Daniels. Every Semester. Fall 2019

Examines questions of power and resistance as addressed in the literary production of the French-speaking world from the nineteenth through the twenty-first centuries. Examines how language and literature serve as tools for both oppression and liberation during periods of turmoil: political and social revolutions, colonization and decolonization, the first and second world wars. Authors may include Hugo, Sand, Sartre, Fanon, Senghor, Yacine, Beauvoir, Condé, Césaire, Djébar, Camus, Modiano, Perec, and Piketty. Students gain familiarity with a range of genres and artistic movements and explore the myriad ways that literature and language reinforce boundaries and register dissent. Taught in French. (Same as FRS 2410, LAS 2210)

PREREQUISITE: FREN 2305 or higher or FRS 2305 or higher or Placement in FRS 2400 level

AFRS 2530 b-IP. Politics and Societies in Africa. Ericka Albaugh. Non-Standard Rotation. Fall 2019

Surveys societies and politics in sub-Saharan Africa, seeking to understand the sources of current conditions and the prospects for political stability and economic growth. Looks briefly at pre-colonial society and colonial influence on state-construction in Africa, and concentrates on three broad phases in Africa's contemporary political development: (1) independence and consolidation of authoritarian rule; (2) economic decline and challenges to authoritarianism; (3) democratization and civil conflict. Presumes no prior knowledge of the region. (Same as GOV 2530)

AFRS 2653 c. Interracial Narratives. Guy Mark Foster. Non-Standard Rotation. Fall 2019

Violence and interracial sex have long been conjoined in U.S. literary, televisual, and filmic work. The enduring nature of this conjoining suggests there is some symbolic logic at work in these narratives, such that black/white intimacy functions as a figural stand-in for negative (and sometimes positive) commentary on black/white social conflict. When this happens, what becomes of “sex” as a historically changing phenomenon when it is yoked to the historically unchanging phenomenon of the “interracial”? Although counter-narratives have recently emerged to compete with such symbolic portrayals, i.e. romance novels, popular films and television shows, not all of these works have displaced this earlier figural logic; in some cases, this logic has merely been updated. Explores the broader cultural implications of both types of narratives. Possible authors/texts: Richard Wright, Chester Himes, Ann Petry, Lillian Smith, Jack Kerouac, Frantz Fanon, Kara Walker, Amiri Baraka, Alice Walker, Octavia Butler, John R. Gordon, Kim McLarin, *Monster’s Ball*, *Far From Heaven*, and *Sex and the City*.

(Same as ENGL 2653, GSWS 2283)

AFRS 2660 c-VPA. African Americans and Art. Dana Byrd. Non-Standard Rotation. Fall 2019

Investigates the intersection of African American life and art. Topics include the changing definitions of “African American Art,” the embrace of African cultural production, race and representation in slavery and freedom, art as source of inspiration for social movements, and the politics of exhibition. Our mission is to develop art-historical knowledge about this critical aspect of American art history, while facilitating ways of seeing and writing about art.

(Same as ARTH 1500)

AFRS 2823 c-IP. Sacred Icons and Museum Pieces: The Powers of Central African Art. David Gordon. Non-Standard Rotation. Fall 2019

Seminar. The art of Central Africa inspired European avant-garde artists from Pablo Picasso to Paul Klee. This course explores art as a historical source. What does the production, use, commerce, and display of art reveal about politics, ideology, religion, and aesthetics? Prior to European colonialism, what was the relationship between art and politics in Central Africa? How did art represent power? What does it reveal about gender relations, social divisions, and cultural ideals? The course then turns to the Euro-American scramble for Central African art at the onset of European colonialism. How did the collection of art, its celebration by European artists, and display in European and American museums transform patterns of production, cultural functions and aesthetic styles of Central African art? The course ends with current debates over the repatriation of African art. Note: This course is part of the following field(s) of study: Africa. This course meets the non-European/ US History requirements. (Same as ARTH 2390, HIST 2823)

AFRS 3205 c-IP. African Popular Music and Cultural Hybridity: Sounds, Discourses, and Critical Issues. Marceline Saibou. Non-Standard Rotation. Fall 2019

Examines the politics and poetics of cultural hybridity in the context of select popular music genres in and from Africa, and critically engages with related scholarly, nationalist, and popular discourses. Musical genres covered range from early twentieth-century West African palmwine music to contemporary manifestations of hip hop across the African continent, and include musical products of post-independence cultural policies and the transnational marketing niche of “Afropop”. The rise and popularity of these genres is historicized and analyzed in the context of major social, ideological, political, and economic forces that have shaped Africa over the past 100 years, including colonialism, modern urbanization, independence movements, and globalization. Course materials include writings from the fields of ethnomusicology, cultural studies, and postcolonial theory, musical audio and video recordings, journalistic and promotional sources, as well as film documentaries. (Same as MUS 3205)

PREREQUISITE: MUS 2000 - 2969 or AFRS 2000 - 2969 or MUS 3000 or higher or AFRS 3000 or higher

AFRS 3213 c. Aesthetics in Africa and Europe. Hanetha Vete-Congolo. Non-Standard Rotation. Fall 2019

Aesthetics -- the critical reflection on art, taste, and culture; as much as beauty, the set of properties of an object that arouses pleasure--are central to all aspects of society-building and human life and relationships. Examines the notions of aesthetics and beauty, from pre-Colonial to contemporary times in cultures of the African and Western civilizations as expressed in various humanities and social sciences texts, as well as the arts, iconography, and the media. Considers the ways Africans and afro-descendants in the New World responded to the Western notions of aesthetics and beauty. Authors studied may include Anténor Firmin, Jean Price Mars, Senghor, Damas, Césaire, Cheick Anta Diop, Fanon, Glissant, Chamoiseau, Gyekye Kwame, Socrates, Plato, Jean-Baptiste du Bos, Diderot, Le père André, Baumgarten, Kant, Schopenhauer, Hegel, Hugo. (Same as FRS 3213, LAS 3213)

PREREQUISITE: Two of: | either FRS 2409 (same as AFRS 2409 and LAS 2209) or FRS 2410 (same as AFRS 2412 and LAS 2210) or FRS 3000 or higher | and either FRS 2409 (same as AFRS 2409 and LAS 2209) or FRS 2410 (same as AFRS 2412 and LAS 2210) or FRS 3000 or higher

Arabic

ARBC 1101 c. Elementary Arabic I. Batool Khattab. Every Fall. Fall 2019

An introductory course that presumes no previous knowledge of Arabic. Students begin to acquire an integrated command of speaking, reading, writing, and listening skills in Modern Standard Arabic. Some exposure to Egyptian Colloquial Arabic as well. Class sessions conducted primarily in Arabic.

ARBC 2203 c. Intermediate Arabic I. Batool Khattab. Every Fall. Fall 2019

A continuation of first-year Arabic, aiming to enhance proficiency in listening, speaking, reading, and writing through the study of more elaborate grammar structures and exposure to more sophisticated, authentic texts.

PREREQUISITE: ARBC 1102

ARBC 2305 c-IP. Advanced Arabic. Pamela Klasova. Every Fall. Fall 2019

Continues the “Al-Kitaab” series to take students to an intermediate or high-intermediate level of proficiency. Reading, writing, speaking, and listening activities cover a variety of topics and rely on authentic, unedited materials

PREREQUISITE: ARBC 2204

Art

ARTH 1010 c. Visual Culture and the Holocaust. Natasha Goldman. Non-Standard Rotation. Fall 2019

Since 1945, memorials, works of art in public space, and museums have been dedicated to remembering the Holocaust. Examines works of art and museums produced in, among other countries, Germany, Israel, Poland, and the United States. Nathan Rapoport's Warsaw Ghetto Monument in Poland, Peter Eisenman's Holocaust Memorial in Berlin, and the United States Holocaust Memorial Museum in Washington, DC, among other sites, are addressed. Historical and art historical context, as well as theories of memory and trauma, provide lenses through which works are interpreted. A range of stylistic approaches of memorials, including representational, abstract, minimal, conceptual, postmodern, and new media art, are explained and explored. Two field trips include visits to the Boston Holocaust Memorial and the Holocaust and Human Rights Center in Augusta, Maine.

ARTH 1014 c. Matisse and Picasso. Pamela Fletcher. Non-Standard Rotation. Fall 2019

Examines the painting of Pablo Picasso and Henri Matisse, in the context of modern painting, philosophy, and history. Particular attention is paid to the creative exchanges and rivalries between the two artists, as well as their role in the popular understanding of modern art and the role of the artist in society.

ARTH 1300 c-IP, VPA. Introduction to the Arts of Ancient Mexico and Peru. Susan Wegner. Non-Standard Rotation. Fall 2019

A chronological survey of the arts created by major cultures of ancient Mexico and Peru. Mesoamerican cultures studied include the Olmec, Teotihuacan, the Maya, and the Aztec up through the arrival of the Europeans. South American cultures such as Chavín, Nasca, and Inca are examined. Painting, sculpture, and architecture are considered in the context of religion and society. Readings in translation include Mayan myth and chronicles of the conquest. (Same as LAS 1300)

ARTH 1500 c-VPA. African Americans and Art. Dana Byrd. Non-Standard Rotation. Fall 2019

Investigates the intersection of African American life and art. Topics include the changing definitions of "African American Art," the embrace of African cultural production, race and representation in slavery and freedom, art as source of inspiration for social movements, and the politics of exhibition. Our mission is to develop art-historical knowledge about this critical aspect of American art history, while facilitating ways of seeing and writing about art.

(Same as AFRS 2660)

ARTH 2090 c-VPA. Greek Archaeology. Proxy Instructor Listed for Registration. Robert Sobak. Every Other Fall. Fall 2019

Introduces the techniques and methods of classical archaeology as revealed through an examination of Greek material culture. Emphasis upon the major monuments and artifacts of the Greek world from prehistory to the Hellenistic age. Architecture, sculpture, fresco painting, and other “minor arts” are examined at such sites as Knossos, Mycenae, Athens, Delphi, and Olympia. Considers the nature of this archaeological evidence and the relationship of classical archaeology to other disciplines such as art history, history, and classics. Assigned reading supplements illustrated presentations of the major archaeological finds of the Greek world. (Same as ARCH 1101)

ARTH 2140 c-VPA. The Gothic World. Kate Gerry. Non-Standard Rotation. Fall 2019

Introduces students to art produced in Europe and the Mediterranean from the twelfth through the early fifteenth century. Following a general chronological sequence, investigates the key artistic monuments of this period in a variety of media, including architecture, painting, manuscript illumination, stained glass, sculpture, and the decorative arts. Explores a particular theme in each class meeting through the close analysis of a single monument or closely related set of monuments, as well as those that students may encounter in future studies.

ARTH 2220 c-VPA. The Medici's Italy: Art, Politics, and Religion, 1300-1600. Susan Wegner. Non-Standard Rotation. Fall 2019

An exploration of the painting, sculpture, and architecture from Giotto's revolutionary paintings in 1300 through the fifteenth century with masters such as Donatello and up to High Renaissance giants, Leonardo da Vinci, Titian, Raphael, and Michelangelo. Examines art-making and function within the society that used it, including the role of women as patrons, artists and subjects of art. Readings in translation of sixteenth-century artists' biographies, art criticism, and popular literature. Class will make use of collections in the Bowdoin College Museum of Art, the Boston Museum of Fine Arts, and the Isabella Stewart Gardner Museum in Boston.

ARTH 2390 c-IP. Sacred Icons and Museum Pieces: The Powers of Central African Art. David Gordon. Non-Standard Rotation. Fall 2019

Seminar. The art of Central Africa inspired European avant-garde artists from Pablo Picasso to Paul Klee. This course explores art as a historical source. What does the production, use, commerce, and display of art reveal about politics, ideology, religion, and aesthetics? Prior to European colonialism, what was the relationship between art and politics in Central Africa? How did art represent power? What does it reveal about gender relations, social divisions, and cultural ideals? The course then turns to the Euro-American scramble for Central African art at the onset of European colonialism. How did the collection of art, its celebration by European artists, and display in European and American museums transform patterns of production, cultural functions and aesthetic styles of Central African art? The course ends with current debates over the repatriation of African art. Note: This course is part of the following field(s) of study: Africa. This course meets the non-European/ US History requirements. (Same as AFRS 2823, HIST 2823)

ARTH 2420 c-VPA. Realism and Its Discontents: European Art, 1839-1900. Pamela Fletcher. Non-Standard Rotation. Fall 2019

A survey of European art from the advent of photography to the turn of the century. The nineteenth century witnessed an explosion of urban growth, increasing political and economic power for the middle and working classes, and revolutionary scientific and technological discoveries. How did the visual arts respond to and help shape the social forces that came to define Western modernity? Questions to be addressed include: What was the impact of photography and other technologies of vision on painting's relation to mimesis? How did new audiences and exhibition cultures change viewers' experiences and expectations of art? How did artists respond to the new daily realities of modern urban life, including the crowd, the commodity, railways, and electric light? Artists discussed include Courbet, Frith, Manet, Ford Madox Brown, Julia Margaret Cameron, Whistler, Ensor, Gauguin, and Cézanne.

ARTH 2450 c-VPA. American Furniture by Design. Dana Byrd. Non-Standard Rotation. Fall 2019

A scholarly inquiry into furniture produced and used in the United States from the seventeenth century through the twentieth century. Students learn traditional woodworking skills and build their own objects. Through hands-on examination of American furniture in local collections, students develop the language, methodology, and interpretive skills for object analysis. Both typical and exceptional forms of furniture from each era are studied and historicized, including those for domestic, ecclesiastical, and presentation purposes.

ARTH 3370 c-IP, VPA. Medieval Art and the Modern Viewer: Building an Exhibition with Wyvern Collection. Kate Gerry. Non-Standard Rotation. Fall 2019

The long-term loan of the Wyvern Collection of medieval art to the BCMA offers an opportunity for hands-on research in a museum setting. Students work directly with medieval works of art to conduct object-based research, develop some of the components of an exhibition, and explore specific aspects of medieval art history. As a group, students develop an exhibition concept and consider questions related to the display of objects. Individually, students research works of art and their cultural context, and write museum labels, wall text, and essays. Topics for research and discussion might include religion, gender, and globalism in the Middle Ages; history and theory of collecting and display.

PREREQUISITE: ARTH 1000 - 2969 or ARTH 3000 or higher

VART 1101 c-VPA. Drawing I. The Department. Every Semester. Fall 2019

An introduction to drawing, with an emphasis on the development of perceptual, organizational, and critical abilities. Studio projects entail objective observation and analysis of still-life, landscape, and figurative subjects; exploration of the abstract formal organization of graphic expression; and the development of a critical vocabulary of visual principles. Lectures and group critiques augment studio projects in various drawing media.

VART 1201 c-VPA. Printmaking I. Carrie Scanga. Every Semester. Fall 2019

How do we design images that visually express what we want to communicate? This question is at the heart of the printmaking discipline, which originated in the book and news printing industries and was later adopted as a tool by visual artists. Offers an exploration of image making through traditional and digital craft. Basic printmaking strategies and materials are introduced, such as ink, pressure, stencils, and multiples. Practices fine art print processes (digital, relief, and intaglio) using contemporary formats such as zines, stenciling, found objects, and collaboration. Exposure to historical and contemporary examples of printmaking through library special collections and museum visits, trips to local print shops and artists' studios, demonstrations, visiting artist projects, and critiques supplement learning in the printmaking studio. Prior experience with other methods of image making, such as drawing or photography, is not required.

VART 1301 c-VPA. Painting I. Mark Wethli. Every Semester. Fall 2019

An introduction to painting, with an emphasis on the development of perceptual, organizational, and critical abilities. Studio projects entail objective observation and analysis of still-life, landscape, and figurative subjects; exploration of the painting medium and chromatic structure in representation; and the development of a critical vocabulary of painting concepts. Lectures and group critiques augment studio projects in painting media.

PREREQUISITE: VART 1101

VART 1401 c-VPA. Photography I. Proxy Instructor Listed for Registration. Michael Kolster. Every Semester. Fall 2019

Photographic visualization and composition as consequences of fundamental techniques of black-and-white still photography. Class discussions and demonstrations, examination of masterworks, and field and laboratory work in 35mm format. Students are encouraged to provide their own 35mm film manually adjustable cameras, but the department has cameras for loan if necessary.

VART 1601 c-VPA. Sculpture I. The Department. Every Semester. Fall 2019

An introduction to sculpture, with emphasis on the development of perceptual, organizational, and critical abilities. Studio projects entail a variety of sculptural approaches, including exploration of the structural principles, formal elements, and critical vocabulary of the sculpture medium. Lectures and group critiques augment studio projects in paper, wood, and other media.

VART 2301 c-VPA. Painting II. Mark Wethli. Non-Standard Rotation. Fall 2019

A continuation of the principles introduced in Visual Arts 1301, with studio problems based on direct experience.

PREREQUISITE: VART 1301

VART 2402 c-VPA. Photography and Color. Proxy Instructor Listed for Registration. Michael Kolster. Non-Standard Rotation. Fall 2019

A continuation of principles encountered in Visual Arts 1401, with an added emphasis on the expressive potential of color. Cameras of various formats, from the 35mm to the 4x5, are used to complete assignments. Approaches to color film exposure and digital capture, manipulation, and printing are practiced and the affect of color is examined. Through reading assignments, slide presentations, and discussions, students explore historical and cultural implications of color photography. Weekly assignments and group critiques structure class discussion.

PREREQUISITE: VART 1401

VART 3800 c. Art and Time. James Mullen. Non-Standard Rotation. Fall 2019

Guided Independent Studio Practice. An exploration of the role of time in the visual arts. Through class assignments and independent projects, examines how artists can invoke and transform time. Attention given to historical and contemporary precedents. Seminar discussions, field trips, and class critiques. Not open to students who have credit for Visual Arts 2801.

PREREQUISITE: Two of: || VART 1100 - 2969|| and VART 1100 - 2969

VART 3801 c. Narrative Structures. Carrie Scanga. Non-Standard Rotation. Fall 2019

Guided Independent Studio Practice. Explores narrative content, forms, processes, meanings, and approaches in the visual arts, especially in the context of contemporary practice, through interdisciplinary media, as determined jointly by faculty and students in the course.

PREREQUISITE: Two of: || VART 1100 - 2969|| and VART 1100 - 2969

Asian Studies

ASNS 1046 b. Global Media and Politics. Henry Laurence. Non-Standard Rotation. Fall 2019

Examines the impact of media including the Internet, newspapers, and television, on politics and society in cross-national perspective. Asks how differences in the ownership and regulation of media affect how news is selected and presented, and looks at various forms of government censorship and commercial self-censorship. Also considers the role of the media and “pop culture” in creating national identities, perpetuating ethnic stereotypes, and providing regime legitimation; and explores the impact of satellite television and the Internet on rural societies and authoritarian governments. (Same as GOV 1026)

ASNS 1560 c-IP. Merchants, Mughals, Mendicants: India and the Early Modern World. Rachel Sturman. Non-Standard Rotation. Fall 2019

Introductory exploration of the history of the Indian subcontinent and its connections to the broader world in an era shaped by the vibrant movement of people, goods, and ideas across the Indian Ocean, Europe, and Central Asia. Note: This course is part of the following field(s) of study: South Asia. It also fulfills the non Euro/US and pre-modern requirements for history majors and minors. (Same as HIST 1440)

ASNS 2002 c-ESD, IP. The Foundations of Chinese Thought. Ya Zuo. Non-Standard Rotation. Fall 2019

Seminar. Addresses Chinese thought from the time of Confucius, ca. sixth century B.C.E., up to the beginning of the Common Era. The first half of the time period nurtured many renowned thinkers who devoted themselves to the task of defining and disseminating ideas. The latter half witnessed the canonization of a number of significant traditions, including Confucianism. Major problems that preoccupied the thinkers include order and chaos, human nature, the relationship between man and nature, among others. Students instructed to treat philosophical ideas as historically conditioned constructs and to interrogate them in contexts. Note: This course is part of the following field(s) of study: East Asia. It fulfills the pre-modern and non Euro/US requirements for history majors and minors. (Same as HIST 2780)

ASNS 2010 c-IP. The Emergence of Chinese Civilization. Ya Zuo. Non-Standard Rotation. Fall 2019

Introduction to ancient Chinese history (2000 B.C.E. to 800 C.E.). Explores the origins and foundations of Chinese civilization. Prominent themes include the inception of the imperial system, the intellectual florescence in classical China, the introduction and assimilation of Buddhism, the development of Chinese cosmology, and the interactions between early China and neighboring regions. Class discussion of historical writings complemented with literary works and selected pieces of the visual arts. Note: This course fulfills the pre-modern requirement for history majors. (Same as HIST 2320)

ASNS 2071 c-IP. China's Urbanization: Art and Architecture. Shu-chin Tsui. Non-Standard Rotation. Fall 2019

Explores visual cultural trends in modern China with socialist and post-socialist conditions as the contextual setting and visual cultural studies the theoretical framework. Discussion topics include but not limited to the following: architecture, from the Imperial Palace to the Bird's Nest stadium; art, from socialist realism to post-socialist experiment; advertising, from Shanghai modern to global consumerism; and digital media, from the Internet to bloggers. Questions central to the course ask how visual cultural trends reflect and react to China's social-economic transitions, and how the state apparatus and the people participate in cultural production and consumption. This is a research-oriented course. Students gain knowledge about contemporary Chinese culture as well as skills in the critical analysis of cultural artifacts and trends.

ASNS 2075 c-IP, VPA. Ecocinema: China's Ecological and Environmental Crisis. Shu-chin Tsui. Every Other Spring. Fall 2019

Examines how China's economic development has caused massive destruction to the natural world and how environmental degradation affects the lives of ordinary people. An ecological and environmental catastrophe unfolds through the camera lens in feature films and documentaries. Central topics include the interactions between urbanization and migration, humans and animals, eco-aesthetics and manufactured landscapes, local communities and globalization. Considers how cinema, as mass media and visual medium, provides ecocritical perspectives that influence ways of seeing the built environment. The connections between cinema and environmental studies enable students to explore across disciplinary as well as national boundaries. Note: Fulfills the non-US cinema requirement and the film theory requirement for cinema studies minors. (Same as CINE 2075, ENVS 2475)

ASNS 2300 c-ESD, IP. Literature of World War II and the Atomic Bomb in Japan: History, Memory, and Empire. Vyjayanthi Selinger. Non-Standard Rotation. Fall 2019

A study of Japan's coming to terms with its imperialist past. Literary representations of Japan's war in East Asia are particularly interesting because of the curious mixture of remembering and forgetting that mark its pages. Postwar fiction delves deep into what it meant for the Japanese people to fight a losing war, to be bombed by a nuclear weapon, to face surrender, and to experience Occupation. Sheds light on the pacifist discourse that emerges in atomic bomb literature and the simultaneous critique directed toward the emperor system and wartime military leadership. Also examines what is missing in these narratives -- Japan's history of colonialism and sexual slavery -- by analyzing writings from the colonies (China, Korea, and Taiwan). Tackles the highly political nature of remembering in Japan. Writers include the Nobel prize-winning author Ôe Kenzaburô, Ôoka Shôhei, Kojima Nobuo, Shimao Toshio, Hayashi Kyoko, and East Asian literati like Yu Dafu, Lu Heruo, Ding Ling, and Wu Zhou Liu.

ASNS 2320 b-ESD, IP. Japanese Politics and Society. Henry Laurence. Every Fall. Fall 2019

Comprehensive overview of modern Japanese politics in historical, social, and cultural context. Analyzes the electoral dominance of the Liberal Democratic Party, the nature of democratic politics, and the rise and fall of the economy. Other topics include the status of women and ethnic minorities, education, war guilt, nationalism, and the role of the media. (Same as GOV 2450)

ASNS 2552 c-IP. Hindu Literatures. Proxy Instructor Listed for Registration. Elizabeth Pritchard. Non-Standard Rotation. Fall 2019

In this exploration of Hindu texts, we delve into some of the most ancient and beloved literature from the Indian subcontinent. Students read major scriptural sources, including the Vedas and Upanishads. In our study of the epics (the Ramayana and the Mahabharata, including the Bhagavad Gita), we discuss translations from Sanskrit and popular retellings of these stories into other languages and media. We discuss the Puranas, reading the story of the warrior Goddess in the Devi Mahatmyam and investigate visual representations of gods and goddesses. We also sample Sanskrit classical poetry and devotional literature to the Goddess translated from Bengali. (Same as REL 2220)

ASNS 2601 c-IP. Militancy and Monasticism in South and Southeast Asia. Belinda Kong. Proxy Instructor Listed for Registration. Non-Standard Rotation. Fall 2019

Examines monastic communities throughout South and Southeast Asia and the ways they have been at the forefront of right-wing religious politics in the twentieth and twenty-first centuries. Across Asia, Hindu and Buddhist monks have been playing a political role that some consider contradictory to their spiritual image. Investigates how various monastic communities harness political power today as well as how different communities in early-modern Asia used their spiritual standing and alleged supernatural powers to influence emperors and kings. (Same as REL 2228)

ASNS 2611 b-ESD, IP. The World's Most Dangerous Place?: Gender, Islam, and Politics in Contemporary Pakistan. Shenila Khoja-Moolji. Every Other Fall. Fall 2019

The January 2008 cover image of *The Economist* calls Pakistan "The world's most dangerous place." Indeed, Pakistan has been variously called a "terrorist state," a "failed state," and a "lawless frontier." This course engages in an academic study of the gender, religion, and politics in Pakistan to deepen students' understanding of the world's sixth-most populous country. We begin with accounts of the British colonization of South Asia and the nationalist movements that led to the creation of Pakistan. We then consider the myriad issues the nation has faced since 1947, focusing in particular on the debates surrounding gender and Islam, and Pakistan's entanglements with the US through the Cold War and the War on Terror. In addition to historical and ethnographic accounts, the course will center a number of primary texts (with English translations) including political autobiographies, novels, and terrorist propaganda materials. Students will write a research paper as the final product. (Same as GSWS 2271)

ASNS 2620 b-ESD, IP. Sociological Perspectives on Asia(ns) and Media. Shruti Devgan. Non-Standard Rotation. Fall 2019

Explores Asian national and diasporic/transnational social contexts through the lens of various media, including print, film, television, advertising, music, and digital media. Helps understand how media construct societies and cultures and, in turn, how social institutions, interactions, and identities get reflected in media. Focuses on South Asia to explore questions of ideology and power; political economy of media; construction and representations of gender, sexuality, race, social class, nation, and religion; generations; and social movements and change. (Same as SOC 2520)

PREREQUISITE: Two of: | either SOC 1000 - 2969 or SOC 3000 or higher | and SOC 1101 or ANTH 1101

ASNS 2831 c. Religion on the Move: Religion, Migration, and Mobilization. Proxy Instructor Listed for Registration. Elizabeth Pritchard. Non-Standard Rotation. Fall 2019

Contemporary migration and globalization patterns have transformed where and how religious traditions are practiced, radically altering the landscape of local religion around the world. While migration has been integral to the development of many religious traditions, this course considers the role of colonialism, transnational religious networks, and the global flows of people and ideas in the creation of new religious identities. Readings highlight debates about the relation of religion to gender, ethnicity, and nationality, including the global popularity of yoga, Hindu identity in diaspora, transnational networks of Islamic learning, and changing gender norms in Buddhist monasteries. Through historical primary sources and recent ethnographies, this course focuses on questions such as: How is religious identity transformed by migration? Do religious rituals change in diaspora? And what role does religion play in shaping trends of globalization? (Same as REL 2229)

ASNS 2875 c-IP. Korea Beyond Borders: Contemporary Literature and Film. John Kim. Non-Standard Rotation. Fall 2019

Examines the ways in which contemporary Korean literature and film take on the world. Looks beyond received cultural and historical boundaries by exploring how the world figures within the Korean cultural imagination, as well as how Korea might fit in with the rest of the world. Drawing from, but not limited to, the fiction and films emerging after the IMF (International Monetary Fund) and Asian financial crises of the 1990s and as part of the recent global surge of Korean pop culture, follows Korean writers, filmmakers, and their characters, as they move between national borders (North/South Korea, Japan, China, Vietnam Soviet Union, Europe, Australia, and the US) and boundaries of genre, form, language, and identity. Explores themes of history and memory; relocation and dislocation; capitalism and globalism; technology and reimagining the human. Authors and filmmakers may include: Han Kang, J. M. Lee, Bong Joon-ho, Min Jin Lee, Lee Chang-dong, Kim Youngha, and Bae Suah.

ASNS 2920 b-IP. Political and Economic Development in East Asia. Proxy Instructor Listed for Registration. Paul Franco. Non-Standard Rotation. Fall 2019

Provides an introduction to diversity and development in East Asia. The course first focuses on the rise and decline of a China and a Japan-centric order before WWII and discusses their historical impacts on today's domestic politics and international relations. The course then traces the postwar political economic developments. It examines the economic miracles in Asian countries, and discusses their democratization. It also presents the process of Chinese economic reform and its impacts on the regional order. The course finishes with the examination of the Asian financial crisis and its impacts on regional politics. (Same as GOV 2444)

ASNS 2921 b-IP. International Relations in East Asia. Proxy Instructor Listed for Registration. Paul Franco. Non-Standard Rotation. Fall 2019

Analyzes relations between the various states in East Asia, and between those states and countries outside the region, including the United States. The course addresses empirical and theoretical questions including: what are the threats to peace and prosperity in the region, and how are the different countries responding? What explains the foreign policy strategies of different countries including China and Japan, and how have they changed over time? How can broader theories of international relations inform, and be informed by, the nature of foreign policy choices in this region? Is East Asia headed toward greater cooperation or conflict? (Same as GOV 2694)

CHIN 1101 c. Elementary Chinese I. Songren Cui. Xiaoke Jia. Every Fall. Fall 2019

A foundation course for communicative skills in modern Chinese (Mandarin). Five hours of class per week. Introduction to the sound system, essential grammar, basic vocabulary, and approximately 350 characters (simplified version). Develops rudimentary communicative skills. No prerequisite. Followed by Chinese 1102.

CHIN 1103 c. Advanced Elementary Chinese I. Yinqiu Ma. Every Fall. Fall 2019

An accelerated course for elementary Chinese designed for heritage speakers and for students who have had some background in Chinese language. Emphasis on improvement of pronunciation, consolidation of basic Chinese grammar, vocabulary enhancement, reading comprehension, and writing. Five hours of class per week and individual tutorials. Followed by Chinese 1104. Students should consult with the program about appropriate placement.

CHIN 2203 c. Intermediate Chinese I. Xiaoke Jia. Yinqiu Ma. Every Fall. Fall 2019

An intermediate course in modern Chinese. Five hours of class per week. Consolidates and expands the knowledge of grammar and vocabulary, with 400 additional characters. Further improves students' Chinese proficiency with a focus on accuracy, fluency, and complexity. Followed by Chinese 2204.

PREREQUISITE: CHIN 1102 or CHIN 1104 or Placement in CHIN 2203

CHIN 2205 c. Advanced-Intermediate Chinese I. Songren Cui. Every Fall. Fall 2019

A pre-advanced course in modern Chinese. Three hours of class per week. Upgrades students' linguistic skills and cultural knowledge to explore edited or semi-authentic materials. Followed by Chinese 2206.

PREREQUISITE: CHIN 2204 or Placement in CHIN 2205

CHIN 3307 c. Advanced Chinese I. Xiaoke Jia. Every Fall. Fall 2019

An advanced course in modern Chinese. Three hours of class per week. Designed to develop mastery of the spoken and written language. Emphasis given to reading and writing, with focus on accuracy, complexity, and fluency in oral as well as written expression. Assigned work includes written composition and oral presentations. Repeatable when contents are different.

PREREQUISITE: CHIN 2206 or Placement in CHIN 3307

JPN 1101 c. Elementary Japanese I. Hiroo Aridome. Every Fall. Fall 2019

An introductory course in modern Japanese language. In addition to mastering the basics of grammar, emphasis is placed on active functional communication in the language, as well as reading and listening comprehension. Context-oriented conversation drills are complemented by audio materials. Basic cultural information also presented. The two kana syllabaries and sixty commonly used kanji are introduced. No prerequisite. Followed by Japanese 1102.

JPN 2203 c. Intermediate Japanese I. Vyjayanthi Selinger. Every Fall. Fall 2019

An intermediate course in modern Japanese language, with introduction of advanced grammatical structures, vocabulary, and characters. Continuing emphasis on acquisition of well-balanced language skills based on an understanding of the actual use of the language in the Japanese sociocultural context. Introduces an additional 100 kanji.

PREREQUISITE: JPN 1102 or Placement in JPN 2203

JPN 2205 c. Advanced-Intermediate Japanese I. Hiroo Aridome. Every Fall. Fall 2019

Building on the fundamentals of Elementary and Intermediate Japanese, students increase their proficiency in both the spoken and written language. A variety of written and audiovisual Japanese language materials (essays, movies, manga, etc.) are used to consolidate and expand mastery of more advanced grammatical structures and vocabulary. Students read or watch relevant materials, discuss in class, and then write and/or present on selected Japan-related topics.

PREREQUISITE: JPN 2204 or Placement in JPN 2205

JPN 3307 c. Advanced Japanese I. Hiroo Aridome. Every Fall. Fall 2019

An advanced course in modern Japanese designed to develop mastery of the spoken and written language. A variety of written and audiovisual Japanese language materials (essays, movies, manga, etc.) are used. This is a project-oriented class and students learn to express complex thoughts and feelings, as well as how to properly conduct oneself in a formal Japanese job interview situation.

PREREQUISITE: JPN 2206 or Placement in JPN 3307

Biochemistry

BIOC 2124 a-MCSR, INS. Biochemistry and Cell Biology. Bruce Kohorn. Every Fall. Fall 2019

Focuses on the structure and function of cells as we have come to know them through the interpretation of direct observations and experimental results. Emphasis is on the scientific (thought) processes that have allowed us to understand what we know today, emphasizing the use of genetic, biochemical, and optical analysis to understand fundamental biological processes. Covers details of the organization and expression of genetic information, and the biosynthesis, sorting, and function of cellular components within the cell. Concludes with examples of how cells perceive signals from other cells within cell populations, tissues, organisms, and the environment. Three hours of lab each week. Not open to students who have credit for Biology 2423. (Same as BIOL 2124)

PREREQUISITE: BIOL 1102 or BIOL 1109 or Placement in BIOL 2000 level

Biology

BIOL 1026 a. Approaches to Neuroscience. Hadley Horch. Non-Standard Rotation. Fall 2019

Students will be introduced to the basics of neurobiology, and begin to understand the challenges inherent to studying the brain. Topics will include basic neuronal function, animal behavior, mutations and mental illness, drugs and addiction, neuroethics, and consciousness. Readings from journal articles, websites, and popular press science books will be used. Critical thinking skills will be practiced through several writing assignments as well as in-class discussions and debates.

BIOL 1068 a-INS. Cancer Biology. Stephanie Richards. Non-Standard Rotation. Fall 2019

Examines the biological basis of cancer, including the role of oncogenes and tumor suppressors in regulating how the cell divides, how environmental agents and viruses can induce DNA mutations leading to cancerous growth, and the genetic basis of cancerous cells. Examines diagnostic procedures and explores emerging technologies that are developing new treatments based on cancer cell characteristics.

BIOL 1101 a-MCSR, INS. Biological Principles I. Anne McBride. Every Fall. Fall 2019

The first in a two-semester introductory biology sequence. Topics include fundamental principles of cellular and molecular biology with an emphasis on providing a problem-solving approach to an understanding of genes, RNA, proteins, and cell structure and communication. Focuses on developing quantitative skills, as well as critical thinking and problem solving skills. Lecture and weekly laboratory/discussion groups. To ensure proper placement, students must take the biology placement examination and must be recommended for placement in Biology 1101. Students continuing in biology will take Biology 1102 , not Biology 1109 , as their next biology course.

PREREQUISITE: Placement in BIOL 1101

BIOL 1109 a-MCSR, INS. Scientific Reasoning in Biology. The Department. Every Semester. Fall 2019

Lectures examine fundamental biological principles, from the sub-cellular to the ecosystem level with an emphasis on critical thinking and the scientific method. Laboratory sessions will help develop a deeper understanding of the techniques and methods used in the biological science by requiring students to design and conduct their own experiments. Lecture and weekly laboratory/discussion groups. To ensure proper placement, students must take the biology placement examination and must be recommended for placement in Biology 1109.

PREREQUISITE: Placement in BIOL 1109

BIOL 1174 a-MCSR. Biomathematics. Mary Lou Zeeman. William Barker. Every Fall. Fall 2019

A study of mathematical modeling in biology, with a focus on translating back and forth between biological questions and their mathematical representation. Biological questions are drawn from a broad range of topics, including disease, ecology, genetics, population dynamics, and neurobiology. Mathematical methods include discrete and continuous (ODE) models and simulation, box models, linearization, stability analysis, attractors, oscillations, limiting behavior, feedback, and multiple time-scales. Within the biology major, this course may count as the mathematics credit or as biology credit, but not both. Students are expected to have taken a year of high school or college biology prior to this course. (Same as MATH 1808)

PREREQUISITE: MATH 1600 or higher or Placement in MATH 1700 (M) or Placement in MATH 1750 (M) or Placement in MATH 1800 (M) or Placement in 2000, 2020, 2206 (M)

BIOL 2124 a-MCSR, INS. Biochemistry and Cell Biology. Bruce Kohorn. Every Fall. Fall 2019

Focuses on the structure and function of cells as we have come to know them through the interpretation of direct observations and experimental results. Emphasis is on the scientific (thought) processes that have allowed us to understand what we know today, emphasizing the use of genetic, biochemical, and optical analysis to understand fundamental biological processes. Covers details of the organization and expression of genetic information, and the biosynthesis, sorting, and function of cellular components within the cell. Concludes with examples of how cells perceive signals from other cells within cell populations, tissues, organisms, and the environment. Three hours of lab each week. Not open to students who have credit for Biology 2423. (Same as BIOC 2124)

PREREQUISITE: BIOL 1102 or BIOL 1109 or Placement in BIOL 2000 level

BIOL 2135 a-MCSR, INS. Neurobiology. Hadley Horch. Patsy Dickinson. Every Fall. Fall 2019

Examines fundamental concepts in neurobiology from the molecular to the systems level. Topics include neuronal communication, gene regulation, morphology, neuronal development, axon guidance, mechanisms of neuronal plasticity, sensory systems, and the molecular basis of behavior and disease. Weekly lab sessions introduce a wide range of methods used to examine neurons and neuronal systems. (Same as NEUR 2135)

PREREQUISITE: BIOL 1102 or BIOL 1109 or Placement in BIOL 2000 level

BIOL 2175 a-MCSR, INS. Developmental Biology. William Jackman. Every Fall. Fall 2019

An examination of current concepts of embryonic development, with an emphasis on experimental design. Topics include cell fate specification, morphogenetic movements, cell signaling, differential gene expression and regulation, organogenesis, and the evolutionary context of model systems. Project-oriented laboratory work emphasizes experimental methods. Lectures and three hours of laboratory per week.

PREREQUISITE: BIOL 1102 or BIOL 1109 or Placement in BIOL 2000 level

BIOL 2210 a-MCSR, INS. Plant Ecophysiology. Barry Logan. Every Fall. Fall 2019

Examines the functional attributes of plants and the manner in which they vary across the plant kingdom by the processes of evolution and acclimation. Topics of focus include photosynthesis and protection against high-light stress, the acquisition and distribution of water and mineral nutrients, and environmental and hormonal control of development. Special topics discussed may include plant parasitism, carnivory, the origins and present state of agriculture, plant responses to global climate change, plant life in extreme environments, and the impacts of local land-use history on plant communities. Contemporary research instrumentation is used in weekly laboratories, some conducted in the field, to enable first-hand exploration of phenomena discussed in lecture. (Same as ENVS 2223)

PREREQUISITE: BIOL 1102 or BIOL 1109 or Placement in BIOL 2000 level

BIOL 2327 a-INS. Ecology. Mary Rogalski. Shana Stewart Deeds. Every Fall. Fall 2019

Ecology, the study of how organisms interact with each other and their environment, incorporates topics from how organisms cope with environmental stressors to global carbon cycling. Addresses current questions in ecology, from global change to food security to invasive species. Lectures, labs, primary and popular literature emphasize how scientists use the tenets of ecology to address current environmental issues. Labs, excursions, and student research include ecological studies of plant-insect interactions, collection of long-term data on salamander populations, and emphasis on the natural history of midcoast Maine. An optional field trip will be included (details TBA). (Same as ENVS 2227)

PREREQUISITE: BIOL 1102 or BIOL 1109 or ENVS 2201 (same as BIOL 1158 and CHEM 1105) or Placement in BIOL 2000 level

BIOL 2333 a-MCSR, INS. Benthic Ecology. Amy Johnson. Olaf Ellers. Brittany Jellison. Every Fall. Fall 2019

The principles of ecology emphasizing the hard- and soft-bottom communities of Casco Bay and Harpswell Sound. Field trips and field exercises demonstrate the quantitative principles of marine ecological research, including good practices in sampling designs and field experiments. A class field project designs and implements a long-term study, based at the Bowdoin Marine Laboratory, to monitor and detect changes in community structure driven by climate change in the twenty-first century. Assumes a basic knowledge of biological statistics. Taught in residence at the Schiller Coastal Studies Center. Benthic Ecology is a course-module in the Bowdoin Marine Science Semester and is taught with three other co-requisite courses. (Same as ENVS 2333)

BIOL 2503 a-MCSR, INS. Methods in Ocean Change Ecology. Brittany Jellison. Amy Johnson. Olaf Ellers. Every Fall. Fall 2019

Explores how marine organisms, populations, communities, and ecosystems will respond to global ocean change. Concepts in ecology, behavior, physiology, and evolution will be highlighted to demonstrate how marine systems are affected by ocean change factors such as warming, ocean acidification, hypoxia, habitat loss, and invasive species. Emphasizes in-depth discussion of key literature to exemplify the theory, study design, and analysis tools marine scientists employ to research current and projected ocean change. Also integrates laboratory, fieldwork, and computer activities to illustrate approaches to monitoring and predicting shifts in biological communities. A trip to Hawaii will allow students to get hands on experience monitoring ecosystem health and change in a coral reef system. Taught in residence at Schiller Coastal Studies Center. Ocean change ecology is a course-module in the Bowdoin Marine Science Semester and is taught with three other co-requisite courses. (Same as ENVS 2233)

PREREQUISITE: Two of: || either BIOL 1102 or BIOL 1109 || and MATH 1000 or higher

BIOL 2553 a-INS. Neurophysiology. Patsy Dickinson. Every Fall. Fall 2019

A comparative study of the function of the nervous system in invertebrate and vertebrate animals. Topics include the mechanism that underlie both action potentials and patterns of spontaneous activity in individual nerve cells, interactions between neurons, and the organization of neurons into larger functional units. Lectures and four hours of laboratory work per week. (Same as NEUR 2553)

PREREQUISITE: Two of: || either BIOL 1102 or BIOL 1109 || and either BIOL 2135 or BIOL 2214 or PSYC 2050

BIOL 3117 a-MCSR, INS. Current Topics in Marine Science. Olaf Ellers. Amy Johnson. Brittany Jellison. Every Fall. Fall 2019

An advanced seminar focusing on aspects of marine science relevant to student research projects in the Bowdoin Marine Science Semester. Students choose topics and learn to (1) search for information in the scientific literature; (2) evaluate the utility of papers to their research topic; (3) spot holes in existing understanding; (4) formulate hypothesis driven research questions; (5) integrate across research papers and apply that integrated knowledge to their own topic. Students will also advance their ability to write research plans and papers including producing a grant proposal modeled on a National Science Foundation Graduate Research Fellowship Program (GRFP). Students will also visit several Maine Marine Research facilities and infrastructure to understand the current state of marine fisheries, regulatory and research activities in Maine. Taught in residence at Schiller Coastal Studies Center. Topics in Marine Science is a course-module in the Bowdoin Marine Science Semester and is taught with three other co-requisite courses. (Same as ENVS 2217)

PREREQUISITE: Two of: || either BIOL 1102 or BIOL 1109 || and MATH 1000 or higher

BIOL 3304 a-INS. The RNA World. Anne McBride. Every Fall. Fall 2019

Seminar exploring the numerous roles of ribonucleic acid, from the discovery of RNA as a cellular messenger to the development of RNAs to treat disease. Topics also include RNA enzymes, interactions of RNA viruses with host cells, RNA tools in biotechnology, and RNA as a potential origin of life. Focuses on discussions of papers from the primary literature.

PREREQUISITE: BIOL 2112 or BIOL 2118 or BIOL 2124 (same as BIOC 2124) or BIOL 2423 (same as BIOC 2423) or CHEM 2320 (same as BIOC 2320)

BIOL 3311 a. Motor Systems Neurobiology. Proxy Instructor Listed for Registration. Patsy Dickinson. Non-Standard Rotation. Fall 2019

In this course you will learn about the main animal models used in the study of how the nervous system controls motor behavior as animals, including humans, interact with the environment. The course will cover the principal motor systems (including those for walking, flying, swimming, breathing and others) focusing in particular on bridging the gap between molecular/cellular neuroscience and higher-level perception and behavior. Topics to be covered include: neuroanatomy, neurophysiology and functions of the most studied animal behaviors, and the groups of interconnected neurons (termed neural circuits) that control them. Students will read, interpret, analyze and discuss seminal (classical) and recent scientific papers from influential motor systems neurobiology laboratories. The course will also discuss the relevance of these neuronal motor systems to human diseases. (Same as NEUR 3311)

PREREQUISITE: BIOL 2112 or BIOL 2124 (same as BIOC 2124) or BIOL 2135 (same as NEUR 2135) or BIOL 2175 or BIOL 2553 (same as NEUR 2553) or BIOL 2566 (same as NEUR 2566) or PSYC 2750 (same as NEUR 2750) or PSYC 2751

BIOL 3314 a-INS. Advanced Genetics and Epigenetics. Jack Bateman. Every Fall. Fall 2019

A seminar exploring the complex relationship between genotype and phenotype, with an emphasis on emerging studies of lesser-known mechanisms of inheritance and gene regulation. Topics include dosage compensation, parental imprinting, paramutation, random monoallelic expression, gene regulation by small RNAs, DNA elimination, copy number polymorphism, and prions. Reading and discussion of articles from the primary literature.

PREREQUISITE: BIOL 2112

Chemistry

CHEM 1058 a-INS. Drug Discovery. Danielle Dube. Non-Standard Rotation. Fall 2019

The process of drug discovery of medicinal compounds has evolved over millennia, from the shaman's use of medicinal herbs to the highly evolved techniques of rational design and high-throughput screening used by today's pharmaceutical industry. Examines past and present approaches to drug discovery, with an emphasis on the natural world as a source of drugs, historical examples of drug discovery, and the experiments undertaken to validate a drug. Encourages students to take initial steps to identify novel therapeutics and to directly compare conventional versus herbal remedies in integrated laboratory exercises. Assumes no background in science. Not open to students who have credit for a chemistry course numbered 1000 (100) or higher.

CHEM 1091 a-INS. Introductory Chemistry and Quantitative Reasoning I. Michael Danahy. Every Fall. Fall 2019

The first course in a two-semester introductory college chemistry sequence covering the same content as Chemistry 1101/1102 with additional instruction focused on developing quantitative reasoning and problem-solving skills in the context of learning chemistry. Topics include the properties of matter, atomic and molecular structure, quantum and periodic trends, chemical bonding, intermolecular forces, stoichiometry, and aqueous solutions. Three hours of lecture, mandatory one-hour problem-solving session, and three hours of laboratory work per week. To ensure proper placement, students must take the chemistry placement examination prior to registration and must be recommended for placement in Chemistry 1091. Not open to students who have taken Chemistry 1101, 1102, or 1109. Students continuing in chemistry take Chemistry 1092 as their next chemistry course.

PREREQUISITE: Placement in CHEM 1091

CHEM 1093 a-MCSR. Introduction to Quantitative Reasoning in the Physical Sciences. Proxy Instructor Listed for Registration. Madeleine Msall. Every Fall. Fall 2019

Climate science. Quantum Physics. Bioengineering. Rocket science. Who can understand it? Anyone with high school mathematics (geometry and algebra) can start. Getting started in physics requires an ability to mathematically describe real world objects and experiences. Prepares students for additional work in physical science and engineering by focused practice in quantitative description, interpretation, and calculation. Includes hands-on measurements, some introductory computer programming, and many questions about the physics all around us. Registration for this course is by placement only. To ensure proper placement, students must have taken the physics placement examination prior to registering for Physics 1093. (Same as PHYS 1093)

PREREQUISITE: Placement in PHYS 1093

CHEM 1101 a-INS. Introductory Chemistry I. Jeffrey Nagle. Every Fall. Fall 2019

The first course in a two-semester introductory college chemistry sequence. Introduction to the states of matter and their properties, stoichiometry and the mole unit, properties of gases, thermochemistry, atomic structure, and periodic properties of the elements. Lectures, review sessions, and four hours of laboratory work per week. To ensure proper placement, students must take the chemistry placement examination and must be recommended for placement in Chemistry 1101. Students continuing in chemistry take Chemistry 1102, not Chemistry 1109, as their next chemistry course.

PREREQUISITE: Placement in CHEM 1101 or Placement in CHEM 1109/1101

CHEM 1109 a-MCSR, INS. General Chemistry. Elizabeth Stemmler. Every Semester. Fall 2019

A one-semester introductory chemistry course. Introduction to models of atomic structure, chemical bonding, and intermolecular forces; characterization of chemical systems at equilibrium and spontaneous processes; the rates of chemical reactions; and special topics. Lectures, review sessions, and four hours of laboratory work per week. Students who have taken Chemistry 1102 may not take Chemistry 1109 for credit. To ensure proper placement, students must take the chemistry placement examination and must be recommended for placement in Chemistry 1109.

PREREQUISITE: Placement in CHEM 1109/1101 or Placement in CHEM 1109 or Placement in 2000/1109 or Placement in CHEM 2000 level

CHEM 2100 a-MCSR, INS. Chemical Analysis. Elizabeth Stemmler. Every Fall. Fall 2019

Methods of separating and quantifying inorganic and organic compounds using volumetric, spectrophotometric, electrometric, and chromatographic techniques are covered. Chemical equilibria and the statistical analysis of data are addressed. Lectures and four hours of laboratory work per week.

PREREQUISITE: CHEM 1092 or CHEM 1102 or CHEM 1109 or CHEM 2000 - 2969 or Placement in CHEM 2000 level or Placement in 2000/1109

CHEM 2250 a. Organic Chemistry I. The Department. Every Fall. Fall 2019

Introduction to the chemistry of the compounds of carbon. Describes bonding, conformations, and stereochemistry of small organic molecules. Reactions of hydrocarbons, alkyl halides, and alcohols are discussed. Kinetic and thermodynamic data are used to formulate reaction mechanisms. Lectures, review sessions, and four hours of laboratory work per week.

PREREQUISITE: CHEM 1092 or CHEM 1102 or CHEM 1109 or CHEM 2000 - 2969 or Placement in CHEM 2000 level or Placement in 2000/1109

CHEM 2510 a-MCSR, INS. Chemical Thermodynamics and Kinetics. Kana Takematsu. Every Fall. Fall 2019

Thermodynamics and its application to chemical changes and equilibria that occur in the gaseous, solid, and liquid states. The behavior of systems at equilibrium and chemical kinetics are related to molecular properties by means of statistical mechanics and the laws of thermodynamics. Lectures and four hours of laboratory work per week. Mathematics 1800 is recommended.

PREREQUISITE: Three of: || either CHEM 1092 or CHEM 1102 or CHEM 1109 or CHEM 2000 - 2969 or Placement in CHEM 2000 level or Placement in 2000/1109 || and either PHYS 1130 or PHYS 1140 || and MATH 1700 or higher or Placement in MATH 1800 (M) or Placement in 2000, 2020, 2206 (M)

CHEM 3200 a. Advanced Organic Chemistry: Organometallic Chemistry. Richard Broene. Non-Standard Rotation. Fall 2019

In-depth study of compounds containing metal-carbon bonds and their reactions, with emphasis on synthesis and spectroscopy. A mechanistic approach is used to discover how these species act as catalysts or intermediates in synthetic organic reactions. Special techniques for handling these often sensitive molecules are introduced.

PREREQUISITE: Two of: || CHEM 2260 || and CHEM 2400

Cinema Studies

CINE 1101 c-VPA. Film Narrative. Tricia Welsch. Every Year. Fall 2019

An introduction to a variety of methods used to study motion pictures, with consideration given to films from different countries and time periods. Examines techniques and strategies used to construct films, including mise-en-scène, editing, sound, and the orchestration of film techniques in larger formal systems. Surveys some of the contextual factors shaping individual films and our experiences of them (including mode of production, genre, authorship, and ideology). No previous experience with film studies is required.

CINE 2075 c-IP, VPA. Ecocinema: China's Ecological and Environmental Crisis. Shu-chin Tsui. Every Other Spring. Fall 2019

Examines how China's economic development has caused massive destruction to the natural world and how environmental degradation affects the lives of ordinary people. An ecological and environmental catastrophe unfolds through the camera lens in feature films and documentaries. Central topics include the interactions between urbanization and migration, humans and animals, eco-aesthetics and manufactured landscapes, local communities and globalization. Considers how cinema, as mass media and visual medium, provides ecocritical perspectives that influence ways of seeing the built environment. The connections between cinema and environmental studies enable students to explore across disciplinary as well as national boundaries. Note: Fulfills the non-US cinema requirement and the film theory requirement for cinema studies minors. (Same as ASNS 2075, ENVS 2475)

CINE 2426 c. The Horror Film in Context. Aviva Briefel. Non-Standard Rotation. Fall 2019

Examines the genre of the horror film in a range of cultural, theoretical, and literary contexts. Considers the ways in which horror films represent violence, fear, and paranoia; their creation of identity categories; their intersection with contemporary politics; and their participation in such major literary and cinematic genres as the gothic, comedy, and family drama. Texts may include works by Craven, Cronenberg, De Palma, Freud, Hitchcock, Kristeva, Kubrick, Poe, Romero, and Shelley. Note: Fulfills the film theory requirement for Cinema Studies minors. (Same as ENGL 2426, GSWS 2426)

CINE 2645 VPA. Filmmaking and Born-Digital Storytelling. Erin Johnson. Non-Standard Rotation. Fall 2019

Considers filmmaking in a networked world, as well as the cultural implications of new technologies. Students will create innovative, internet-based films that engage in the changing digital landscape of ubiquitous computing. Students will learn the basics of film production including digital camera operation, sound recording, lighting, non-linear editing, basic compositing and green screen - tools needed to create compelling films, interactive videos, VR and AR experiences, and innovative transmedia projects. Additionally, students will study the history and proliferation of cinema engaged with digital technologies and the internet. (Same as DCS 2645)

PREREQUISITE: DCS 1000 - 2969 or DCS 3000 or higher or CINE 1000 - 2969 or CINE 3000 or higher

CINE 2831 b-IP. Ethnographic Film. April Strickland. Non-Standard Rotation. Fall 2019

Considers the development of ethnographic film from an anthropological lens and international perspectives. Starting with the advent of the documentary and concluding with ethnographic new media, investigates how, why, and to what end film has been used as a tool by anthropologists and the communities that they work with to expand discussions about the modern world. Topics include filmmaking as a methodology for social scientists, the connections between ethnographic film and self-determination efforts in minority communities, critical examinations of media-making practices--onscreen and off--and the global impact these factors have had. (Same as ANTH 2340)

PREREQUISITE: ANTH 1101 or SOC 1101

CINE 2860 c. Character, Plot, Scene, Theme, Dream: The Fundamentals of Screenwriting. Anthony Walton. Non-Standard Rotation. Fall 2019

Introduction to the basic practices of writing for the screen, including concepts, techniques, and predictable problems. Students study and analyze films and scripts from the perspective of the screenwriter and complete a writing project of their own. Note: Fulfills the creative writing concentration requirement for English majors. (Same as ENGL 2860)

CINE 3310 c. Gay and Lesbian Cinema. Tricia Welsch. Non-Standard Rotation. Fall 2019

Considers both mainstream and independent films made by or about gay men and lesbians. Four intensive special topics each semester, which may include classic Hollywood stereotypes and euphemisms; the power of the box office; coming of age and coming out; the social problem film; key figures; writing history through film; queer theory and queer aesthetics; revelation and revaluations of film over time; autobiography and documentary; the AIDS imperative. Writing intensive; attendance at evening film screenings is required. Note: Fulfills the film theory requirement for cinema studies minors. (Same as GSWS 3310)

PREREQUISITE: CINE 1000 or higher or FILM 1000 or higher

Classics

ARCH 1012 c. The Archaeology of Ritual and Myth in the Ancient Mediterranean. T.B.A. Non-Standard Rotation. Fall 2019

Examines ancient religious traditions and practice through the study of artifacts from the ancient Mediterranean housed in the Bowdoin College Museum of Art. Students actively engage in the analysis of artifacts from Egypt, Assyria, Etruria, Greece, and Italy that represent aspects of ancient religious practice. Student writing assignments draw inspiration from select objects from the collection that include many examples of sculpture, pottery, and coins. Illustrated presentations and assigned reading provide the archaeological contexts for the artifacts under study, as well as explore the cultural narratives recounted in history and myth. Sites such as Giza, Kalhu, Delphi, Olympia, Athens, Pompeii, and Rome are explored as the settings for the rituals and myths that helped define the cultures of the ancient Mediterranean world. Class meetings take place in the Museum of Art.

ARCH 1101 c-VPA. Greek Archaeology. Proxy Instructor Listed for Registration. Robert Sobak. Every Other Fall. Fall 2019

Introduces the techniques and methods of classical archaeology as revealed through an examination of Greek material culture. Emphasis upon the major monuments and artifacts of the Greek world from prehistory to the Hellenistic age. Architecture, sculpture, fresco painting, and other “minor arts” are examined at such sites as Knossos, Mycenae, Athens, Delphi, and Olympia. Considers the nature of this archaeological evidence and the relationship of classical archaeology to other disciplines such as art history, history, and classics. Assigned reading supplements illustrated presentations of the major archaeological finds of the Greek world. (Same as ARTH 2090)

CLAS 1017 c. The Heroic Age: Ancient Supermen and Wonder Women. Michael Nerdahl. Non-Standard Rotation. Fall 2019

The modern concept of the superhero is an enduring vestige of the ancient concept of the hero, the ancient Greek word used to describe men of exceptional ability. Looks at heroes and heroines in ancient literature and culture, considering a range of sources from ancient Babylon to imperial Rome. Considers the changing definition of hero, the cultural values associated with heroism, the role played by gender and sexuality in the definition of the hero, and analogues to ancient heroes in modern cinema. Examines more nebulous and problematic models for the ancient villain and considers how contrasting definitions of hero and antihero can be used to understand ancient thought concerning human nature.

CLAS 1111 c-ESD, IP. History of Ancient Greece: From Homer to Alexander the Great. Robert Sobak. Non-Standard Rotation. Fall 2019

Surveys the history of Greek-speaking peoples from the Bronze Age (ca. 3000-1100 B.C.E) to the death of Alexander the Great in 323 B.C.E. Traces the political, economic, social, religious, and cultural developments of the Greeks in the broader context of the Mediterranean world. Topics include the institution of the polis (city-state); hoplite warfare; Greek colonization; the origins of Greek science; philosophy and rhetoric; and fifth-century Athenian democracy and imperialism. Necessarily focuses on Athens and Sparta, but attention is also given to the variety of social and political structures found in different Greek communities. Special attention is given to examining and attempting to understand the distinctively Greek outlook in regard to gender, the relationship between human and divine, freedom, and the divisions between Greeks and barbarians (non-Greeks). A variety of sources -- literary, epigraphical, archaeological -- are presented, and students learn how to use them as historical documents. Note: This course is part of the following field(s) of study: Europe. It fulfills the pre-modern requirement for history majors and minors. (Same as HIST 1111)

CLAS 2736 c-ESD. Ancient Greek Medicine. Jennifer Clarke Kosak. Non-Standard Rotation. Fall 2019

Seminar. Explores the development of scientific thinking in the ancient Greek world by examining the history of Greek medicine. Topics include the development of Greek rationalist thought; concepts of health and disease; notions of the human body, both male and female; the physician's skills (diagnosis, prognosis, remedy); similarities and differences between religious and scientific views of disease; concepts of evidence, proof, and experiment; Greek medical thinking in the Roman world. All readings in English. This course emphasizes the skills and approaches to writing in the Classics discipline.

CLAS 3310 c-IP. Imagining Rome. Barbara Weiden Boyd. Non-Standard Rotation. Fall 2019

The mythical fate-driven foundation of Rome and the city's subsequent self-fashioning as caput mundi (capital of the world) have made the city an idea that transcends history, and that has for millennia drawn historians, poets, artists, and, most recently, filmmakers to attempt to capture Rome's essence. As a result, the city defined by its ruins is continually created anew; this synergy between the ruins of Rome -- together with the mutability of empire that they represent -- and the city's incessant rebirth through the lives of those who visit and inhabit it offers a model for understanding the changing reception of the classical past. This research seminar explores the cycle of ancient Rome's life and afterlife in the works of writers and filmmakers such as Livy, Virgil, Tacitus, Juvenal, Petrarch, Shakespeare, Keats, Goethe, Gibbon, Hawthorne, Freud, Moravia, Rossellini, Fellini, Bertolucci, and Moretti. All readings in English.

PREREQUISITE: ARCH 1102 (same as ARTH 2100) or ARCH 2204 or ARCH 2207 or ARCH 3301 - 3303 or ARCH 3311 or CLAS 1010 - 1011 or CLAS 1017 - 1018 or CLAS 1101 or CLAS 1112 (same as HIST 1112) or CLAS 2212 (same as HIST 2002) or CLAS 2214 (same as HIST 2008) or CLAS 2229 (same as GSWS 2220) or CLAS 2233 (same as HIST 2009) or CLAS 2241 or CLAS 3305 - 3306 or LATN 2203 or higher

GRK 1102 c. Elementary Greek II. The Department. Every Fall. Fall 2019

A continuation of Greek 1101; introduces students to more complex grammar and syntax, while emphasizing the development of reading proficiency. Includes readings, both adapted and in the original, of Greek authors such as Plato and Euripides. Focuses on Attic dialect.

PREREQUISITE: GRK 1101 or Placement in GRK 1102

GRK 2204 c-IP. Homer. Jennifer Clarke Kosak. Every Fall. Fall 2019

An introduction to the poetry of Homer. Focuses both on reading and on interpreting Homeric epic. All materials and coursework in Greek.

PREREQUISITE: GRK 2203 or Placement in GRK 2204

LATN 1101 c. Elementary Latin I. Michael Nerdahl. Every Fall. Fall 2019

A thorough presentation of the elements of Latin grammar. Emphasis is placed on achieving a reading proficiency.

LATN 2203 c. Intermediate Latin for Reading. Michael Nerdahl. Every Fall. Fall 2019

A review of the essentials of Latin grammar and syntax and an introduction to the reading of Latin prose and poetry. Materials to be read change from year to year, but always include a major prose work. Equivalent of Latin 1102, or two to three years of high school Latin is required.

PREREQUISITE: LATN 1102 or Placement in LATN 2203

LATN 2215 c-IP. The Swerve: Lucretius' De rerum natura. Barbara Weiden Boyd. Non-Standard Rotation. Fall 2019

T. Lucretius Carus (c. 94-55 BCE) is the author of a poem “on the nature of things,” composed in six books of didactic-epic hexameters. A student of Epicurean philosophy, Lucretius adapts both the beliefs and proto-scientific discoveries of one of classical antiquity’s most influential intellectual traditions to Latin poetry; his poem proves a model both for subsequent classical poets and for the rationalist movements of the Renaissance. In this seminar, we will read selections from the poem in Latin, and the entire work in English, and consider recent scholarly approaches to Lucretius’ work. We will also devote several weeks at the end of the semester to Lucretius’ post-classical influence and reception. This is a bilevel course, with students at the 2215 and 3315 levels meeting together but with a different syllabus for each level.

LATN 3315 c-IP. The Swerve: Lucretius' *De rerum natura*. Barbara Weiden Boyd. Non-Standard Rotation. Fall 2019

T. Lucretius Carus (c. 94-55 BCE) is the author of a poem “on the nature of things,” composed in six books of didactic-epic hexameters. A student of Epicurean philosophy, Lucretius adapts both the beliefs and proto-scientific discoveries of one of classical antiquity’s most influential intellectual traditions to Latin poetry; his poem proves a model both for subsequent classical poets and for the rationalist movements of the Renaissance. In this seminar, we will read selections from the poem in Latin, and the entire work in English, and consider recent scholarly approaches to Lucretius’ work. We will also devote several weeks at the end of the semester to Lucretius’ post-classical influence and reception. This is a bilevel course, with students at the 2215 and 3315 levels meeting together but with a different syllabus for each level.

Computer Science

CSCI 1055 a-MCSR. The Digital World. Allen Harper. Every Spring. Fall 2019

Explores the means and the results of the digital revolution. Questions how information is coded and stored; how it can be safeguarded. Considers how the widespread coding and transmission of data impact issues such as privacy and intellectual property. Examines these topics through the study and use of techniques from computer science, such as programming and cryptography. Closed to students with credit for any course in computer science or digital and computational studies.

CSCI 1101 a-MCSR. Introduction to Computer Science. The Department. Every Semester. Fall 2019

What is computer science, what are its applications in other disciplines, and what is its impact in society? A step-by-step introduction to the art of problem solving using the computer and programming. Provides a broad introduction to computer science and programming through real-life applications. Weekly labs provide experiments with the concepts presented in class. Assumes no prior knowledge of computers or programming. Final examination grade must be C or better to serve as a prerequisite for Computer Science 2101.

CSCI 1103 a-MCSR. Programming with Data. Eric Chown. Every Fall. Fall 2019

Intended for students with some programming experience, but not enough to move directly into Data Structures. An accelerated introduction to the art of problem solving using the computer and the Python programming language. Weekly labs and programming assignments focus on "big data" and its impact on the world. (Same as DCS 1300)

PREREQUISITE: CSCI 1055 or DCS 1100 or DCS 1200 or Placement in above CSCI 1101

CSCI 2101 a-MCSR. Data Structures. The Department. Every Semester. Fall 2019

Solving complex algorithmic problems requires the use of appropriate data structures such as stacks, priority queues, search trees, dictionaries, hash tables, and graphs. It also requires the ability to measure the efficiency of operations such as sorting and searching in order to make effective choices among alternative solutions. Offers a study of data structures, their efficiency, and their use in solving computational problems. Laboratory exercises provide an opportunity to design and implement these structures. Students interested in taking Computer Science 2101 are required to pass the computer science placement examination with a grade of C or better before class starts.

PREREQUISITE: CSCI 1101 or Placement in above CSCI 1101 or CSCI 1103

CSCI 2200 a-MCSR. Algorithms. Laura Toma. Stephen Majercik. Every Semester. Fall 2019

An introductory course on the design and analysis of algorithms. Introduces a number of basic algorithms for a variety of problems such as searching, sorting, selection, and graph problems (e.g., spanning trees and shortest paths). Discusses analysis techniques, such as recurrences and amortization, as well as algorithm design paradigms such as divide-and-conquer, dynamic programming, and greedy algorithms.

PREREQUISITE: CSCI 2101

CSCI 2330 a-MCSR. Foundations of Computer Systems. Sean Barker. Every Spring. Fall 2019

A broad introduction to how modern computer systems execute programs, store information, and communicate. Examines the hardware and software components required to go from a program expressed in a high-level programming language like C to the computer actually running the program. Topics include concepts of program compilation and assembly, machine code, data representation and computer arithmetic, basic microarchitecture, the memory hierarchy, processes, and system-level I/O. Regular, programming-intensive projects provide hands-on experience with the key components of computer systems.

PREREQUISITE: CSCI 2101

CSCI 2350 a. Social and Economic Networks. Mohammad Irfan. Stephen Majercik. Every Year. Fall 2019

Examines the social and economic aspects of today's connected world from a multitude of perspectives; namely, network science, sociology, economics, and computer science. The fundamental questions to be addressed are: What does a real-world network look like? What are its effects on various social and behavioral phenomena, such as smoking, obesity, or even videos going viral? How does Google search the Internet and make money doing so? Studies economic implications of networks, including networked economies and markets. Also debates the issue of centrality in networks. No programming background required; basics of probability theory and matrix algebra required. (Same as DCS 2350)

CSCI 2400 a-MCSR. Artificial Intelligence. Stephen Majercik. Every Year. Fall 2019

Explores the principles and techniques involved in programming computers to do tasks that would require intelligence if people did them. State-space and heuristic search techniques, logic and other knowledge representations, reinforcement learning, neural networks, and other approaches are applied to a variety of problems with an emphasis on agent-based approaches.

PREREQUISITE: CSCI 2101

CSCI 2510 a-MCSR. Creating Future Worlds: Computing, Ethics, and Society. Stacy Doore. Every Fall. Fall 2019

Explores ethical and moral narratives associated with advances in computing and emerging technologies. Students will investigate current issues through an interdisciplinary approach using a variety of narratives (current events, fictional, personal, and organizational) that demonstrate how the creators of technologies have a profound impact on our present and future society. Course materials integrate foundational literature in the field of computing ethics and the responsible conduct of technology development. A central focus will be a critical analysis of current professional codes of ethics for computing and their limitations in addressing the complexity of rapidly evolving technologies. Topics include: net neutrality, information privacy and data harvesting, algorithmic bias, autonomous systems, intellectual property, cybercrime, digital disparities, tech corporate culture, and individual professional conduct in a diverse tech workplace. This course emphasizes the skills and approaches to writing in the Computer Science discipline.

PREREQUISITE: CSCI 1101 or CSCI 1103 (same as DCS 1300)

CSCI 3210 a. Computational Game Theory. Mohammad Irfan. Stephen Majercik. Every Year. Fall 2019

Advanced algorithms course with a focus on game theory. Topics include computational complexity, linear programming, approximation algorithms, and algorithms for solving games. Game theory, also known as the mathematical theory of strategic interactions, rose to prominence due to its applicability to a variety of strategic scenarios ranging from markets and auctions to kidney exchanges to social influence. These scenarios often involve complex interactions in large-scale systems, giving rise to many computational questions, including: how algorithms for certain games are devised; how local interactions lead to global outcomes; how individual choices, such as selfishness, impact outcomes.

PREREQUISITE: CSCI 2200

CSCI 3250 a. Computational Geometry. Laura Toma. Stephen Majercik. Every Year. Fall 2019

Computational Geometry refers to the study of geometric problems from a computational point of view, with focus on the design and analysis of algorithms for problems involving collections of points, lines and polygons. Computational Geometry emerged as a field driven by geometric problems in graphics and robotics, and its list of applications has continued to grow to areas such as pattern recognition, graph drawing, surface simplification and meshing, crystallography, molecular simulation, planning and autonomous vehicles. Class covers some of the basic concepts and fundamental geometric problems, such as: convex hulls, art gallery and visibility problems, geometric searching with range trees and kd-trees, intersection problems, proximity problems, point and polygon triangulation, and motion planning. Requirements include regular, programming-intensive projects.

PREREQUISITE: Two of: | CSCI 2200 | | and CSCI 2330

CSCI 3725 a. Computational Creativity. Sarah Harmon. Every Other Year. Fall 2019

Introduces theoretical foundations of modeling and evaluating creativity. Students learn techniques to assess creative systems and implement, analyze, and extend algorithms relevant to the latest state of the art. Special topics may include augmented creativity, hybrid systems, narrative intelligence, and algorithmic composition. Culminates in a final report that describes a novel creative technique or framework.

PREREQUISITE: CSCI 2101

Digital and Computational St

DCS 1020 c. How to Read a Million Books. Crystal Hall. Every Other Fall. Fall 2019

The explosion of digital editions and collections of books gives unprecedented access to rare individual texts and massive bodies of literary and cultural material. What does it mean to read a million books? How does it relate to (or obscure) traditional close reading of texts? Are computer codes and algorithms something that might be read? What kinds of new literary analysis do they make possible? Applies and critiques distant reading as a method of making large text collections accessible to human readers. Readings include single texts from different genres, multi-million book collections, and the most recent criticism and theory related to digital texts.

DCS 1024 c. Serious Games: Critical Play for History. Patrick Rael. Non-Standard Rotation. Fall 2019

Did you know that Monopoly began life a game that criticized modern capitalism? Have you ever wondered what sense it makes that in Sid Meier's Civilization, Abraham Lincoln can found the American tribe in 4,000 BCE? This course explores how commercial video and board games can help us understand the past. In return, understanding something about how the discipline of history works will help us think about games as representations of the past. Games to be studied and played may include: Catan, Diplomacy, Monopoly, Sid Meier's Civilization V, Spirit Island, and Twilight Struggle. Students should expect to complete four structured writing assignments and several shorter writing assignments. The course includes a weekly evening game lab. Note: This course is part of the following field(s) of study: US. (Same as HIST 1024)

DCS 1100 c-MCSR. Introduction to Digital and Computational Studies. Crystal Hall. Fernando Nascimento. Every Fall. Fall 2019

Examines the impact of digital artifacts, networked interaction, and computational analysis on the ways in which we establish new knowledge, engage in creative and social practices, and understand the self. Studies how the combination of large-scale digital data and computational modeling methods shape our agency as decision-makers. Emphasis on how the Liberal Arts shape and are shaped by these processes. Coursework includes quantitative analysis, machine learning, text and network analysis, critical readings in the field, and short, exploratory projects. Assumes no knowledge of programming or any software that will be used.

DCS 1300 a-MCSR. Programming with Data. Eric Chown. Every Fall. Fall 2019

Intended for students with some programming experience, but not enough to move directly into Data Structures. An accelerated introduction to the art of problem solving using the computer and the Python programming language. Weekly labs and programming assignments focus on "big data" and its impact on the world. (Same as CSCI 1103)

PREREQUISITE: CSCI 1055 or DCS 1100 or DCS 1200 or Placement in above CSCI 1101

DCS 2350 a. Social and Economic Networks. Mohammad Irfan. Stephen Majercik. Every Year. Fall 2019

Examines the social and economic aspects of today's connected world from a multitude of perspectives; namely, network science, sociology, economics, and computer science. The fundamental questions to be addressed are: What does a real-world network look like? What are its effects on various social and behavioral phenomena, such as smoking, obesity, or even videos going viral? How does Google search the Internet and make money doing so? Studies economic implications of networks, including networked economies and markets. Also debates the issue of centrality in networks. No programming background required; basics of probability theory and matrix algebra required. (Same as CSCI 2350)

DCS 2640 c-VPA. Interactivity, Computation, and Media Architecture. Erin Johnson. Non-Standard Rotation. Fall 2019

The use of media architecture has become an increasingly common way to engage with our surroundings. Explores how embedded computation affects the way the built environment is experienced. Students consider how digital media is changing notions of place and how we interact with and learn about it. Through short- and long-term projects, students explore how to design and prototype computationally driven experiences, which are embedded into architectural spaces. Reading and writing assignments enhance skills in questioning new media and guide consideration of issues surrounding privacy, surveillance, the digital city, geography of cyberspace, representation and identity, technology in the new global economy, space, and audience. Using the graphical programming language Max, students work with data to alter environments using light, sound, and projection and create digital installations. No previous experience with programming is required.

PREREQUISITE: DCS 1000 - 2969 or DCS 3000 or higher or CSCI 1000 - 2969 or CSCI 3000 or higher

DCS 2645 VPA. Filmmaking and Born-Digital Storytelling. Erin Johnson. Non-Standard Rotation. Fall 2019

Considers filmmaking in a networked world, as well as the cultural implications of new technologies. Students will create innovative, internet-based films that engage in the changing digital landscape of ubiquitous computing. Students will learn the basics of film production including digital camera operation, sound recording, lighting, non-linear editing, basic compositing and green screen - tools needed to create compelling films, interactive videos, VR and AR experiences, and innovative transmedia projects. Additionally, students will study the history and proliferation of cinema engaged with digital technologies and the internet. (Same as CINE 2645)

PREREQUISITE: DCS 1000 - 2969 or DCS 3000 or higher or CINE 1000 - 2969 or CINE 3000 or higher

DCS 3450 Cognition and Environment. Eric Chown. Every Fall. Fall 2019

Human cognition was shaped by an environment unlike the one we live in today. The human capacity for perception and thought are not neutral, rather they are attuned to the physical world in which the mind evolved. The digital world presents the mind with a very different environment, one in which the human capacity to effectively process information is often stretched to its limit. Meanwhile large corporations are using psychology, AI, and machine learning in order to more effectively capture and keep our attention. This course examines the relationship of cognition to the environment, whether it be analog or digital, and focuses on the unusual challenges to cognition that come from operating in today's digital world.

PREREQUISITE: DCS 1100 or DCS 1200

Earth and Oceanographic Sci

EOS 1105 a-INS. Investigating Earth. Jacky Baughman. Every Fall. Fall 2019

Dynamic processes, such as earthquakes and volcanoes, shape the earth. Class lectures and exercises examine these processes from the framework of plate tectonics. Weekly field laboratories explore rocks exposed along the Maine coast. During the course, students complete a research project on Maine geology.

EOS 2005 a. Biogeochemistry: An Analysis of Global Change. Michele LaVigne. Every Fall. Fall 2019

Understanding global change requires knowing how the biosphere, geosphere, oceans, ice, and atmosphere interact. An introduction to earth system science, emphasizing the critical interplay between the physical and living worlds. Key processes include energy flow and material cycles, soil development, primary production and decomposition, microbial ecology and nutrient transformations, and the evolution of life on geochemical cycles in deep time. Terrestrial, wetland, lake, river, estuary, and marine systems are analyzed comparatively. Applied issues are emphasized as case studies, including energy efficiency of food production, acid rain impacts on forests and aquatic systems, forest clearcutting, wetland delineation, eutrophication of coastal estuaries, ocean fertilization, and global carbon sinks. Lectures and three hours of laboratory or fieldwork per week. (Same as ENVS 2221)

PREREQUISITE: EOS 1100 - 1999 or BIOL 1102 or BIOL 1109 or CHEM 1092 or CHEM 1102 or CHEM 1109 or ENVS 1102 or ENVS 1104 or ENVS 1515

EOS 2345 a. Geomorphology: Form and Process at the Earth's Surface. Proxy Instructor Listed for Registration. Phil Camill. Every Other Fall. Fall 2019

Earth's surface is marked by the interactions of the atmosphere, water and ice, biota, tectonics, and underlying rock and soil. Even familiar landscapes beget questions on how they formed, how they might change, and how they relate to patterns at both larger and smaller scales. Examines Earth's landscapes and the processes that shape them, with particular emphasis on rivers, hillslopes, and tectonic and climatic forcing. (Same as ENVS 2270)

PREREQUISITE: EOS 2005 (same as ENVS 2221) or ENVS 2221 or EOS 1105

EOS 2530 a. Poles Apart: Exploration of Earth's High Latitudes. Collin Roesler. Non-Standard Rotation. Fall 2019

Compares and contrasts the tectonic evolution, geography, climate, glaciers and sea ice, ocean circulation and ocean biology of the Arctic and Antarctic regions. Emphasis on the Polar Regions' role in global climate regulation and the sensitivity of these regions to climate change. In addition to scientific readings (textbook chapters and journal articles), students read exploration journals and polar biographies focused on polar exploration from the turn of the twentieth century. Fulfills the within-department elective in the EOS major.

Taught in collaboration with ANTH 2572 Contemporary Arctic Environmental and Cultural Issues in fall 2019 to encourage interdisciplinary Arctic learning at the 2000-level. Students registering for both courses need only fulfill prerequisites for one of the courses; permission of instructor will override missing prerequisites.

(Same as ENVS 2287)

PREREQUISITE: EOS 1105 or EOS 1305 (same as ENVS 1104) or EOS 1505 (same as ENVS 1102) or EOS 2005 (same as ENVS 2221)

EOS 2565 a-MCSR, INS. Coastal Oceanography. Collin Roesler. Non-Standard Rotation. Fall 2019

Coastal oceans lie between the shore and the continental shelves. While they represent less than 10 percent of the global ocean, they are responsible for more than half of the global ocean productivity and are the oceanic regime most experienced by humans. They are also the connection between terrestrial environment and the open ocean, and thus quite sensitive to anthropogenic activities. Interdisciplinary exploration of the coastal ocean includes geologic morphology, tides and coastal currents, river impacts, and coastal ecosystems, with examples taken from global coastal oceans. Weekly labs focus on developing skills in field observation, experimentation, and data analysis in the context of the Gulf of Maine. Fulfills the 2000-level ocean core requirement for the EOS major.

PREREQUISITE: Two of: | EOS 1100 - 1999 | and EOS 2005 (same as ENVS 2221)

Economics

ECON 1050 b-MCSR. Introductory Microeconomics and Quantitative Reasoning. Rachel Connelly. Non-Standard Rotation. Fall 2019

A quantitative reasoning supported introduction to economic analysis and institutions, with special emphasis on the allocation of resources through markets. Covers the same content as Economics 1101 with added instruction in the quantitative skills used in modern microeconomics, providing a firm foundation for further coursework in economics. Students desiring a comprehensive introduction to economic reasoning should take both this course (or Economics 1101) and 1102 . To ensure proper placement, students must fill out economics department placement form and must be recommended for placement in Economics 1050. Not open to students have taken Economics 1101.

PREREQUISITE: MATH 1050 or Placement in ECON 1050

ECON 1101 b-MCSR. Principles of Microeconomics. The Department. Every Semester. Fall 2019

An introduction to economic analysis and institutions, with special emphasis on the allocation of resources through markets. The theory of demand, supply, cost, and market structure is developed and then applied to problems in antitrust policy, environmental quality, energy, education, health, the role of the corporation in society, income distribution, and poverty. Students desiring a comprehensive introduction to economic reasoning should take both Economics 1101 and 1102 . For proper placement students should fill out the economics placement request form and must be recommended for placement in Economics 1101. Not open to students who have taken Economics 1050.

PREREQUISITE: MATH 1050 or Placement in ECON 1101

ECON 1102 b-MCSR. Principles of Macroeconomics. The Department. Every Semester. Fall 2019

An introduction to economic analysis and institutions, with special emphasis on determinants of the level of national income, prices, and employment. Current problems of inflation and unemployment are explored with the aid of such analysis, and alternative views of the effectiveness of fiscal, monetary, and other governmental policies are analyzed. Attention is given to the sources and consequences of economic growth and to the nature and significance of international linkages through goods and capital markets.

PREREQUISITE: ECON 1050 or ECON 1101 or Placement in ECON 1102 or Placement in earned ECON 1101

ECON 2001 b. Economic Policy. Gregory DeCoster. Every Year. Fall 2019

Economic analysis can bring clarity to confused and contentious policy debates. Focuses on using economic analysis to anticipate the potential consequences of implementing major policy proposals, including those relating to globalization, international trade and finance, inequality of income and wealth, economic growth and development, the financial system, the government budget and debt, price stability and employment, and the environment.

PREREQUISITE: ECON 1101 or ECON 1050 or Placement in earned ECON 1101 or Placement in ECON 2000 Level

ECON 2304 b-MCSR, IP. Economics of the European Union. Gonca Senel. Non-Standard Rotation. Fall 2019

Focuses on the core economic aspects of the EU integration while taking into account historical and political influences. Major contemporary macroeconomic issues like monetary unification, fiscal policy in a monetary union, theory of customs unions, labor markets and migration, and financial markets and EU crises analyzed through theoretical approaches and empirical evidence.

PREREQUISITE: Two of: || either ECON 1101 or ECON 1050 or Placement in earned ECON 1101 or Placement in ECON 2000 Level|| and ECON 1102 or Placement in earned ECON 1102 or Placement in ECON 2000 Level

ECON 2409 b. Economics of Money, Banking, and Finance. Gregory DeCoster. Non-Standard Rotation. Fall 2019

Introduction to the functions, structure, and operation of modern monetary and financial systems as they relate to the performance of the economic system. Contemporary debates regarding the effectiveness with which financial institutions and markets fulfill the basic functions of finance in a capitalist economy, and the policy choices of the Federal Reserve System and other regulatory agencies will be emphasized. Formerly Economics 2209. Not open to students who have taken Economics 2301, 3301, 3302.

PREREQUISITE: Two of: || either ECON 1101 or ECON 1050 or Placement in earned ECON 1101 or Placement in ECON 2000 Level|| and ECON 1102 or Placement in earned ECON 1102 or Placement in ECON 2000 Level

ECON 2555 b-MCSR. Microeconomics. The Department. Every Semester. Fall 2019

An intermediate-level study of contemporary microeconomic theory. Analysis of the theory of resource allocation and distribution, with major emphasis on systems of markets and prices as a social mechanism for making resource allocation decisions. Topics include the theory of individual choice and demand, the theory of the firm, market equilibrium under competition and monopoly, general equilibrium theory, and welfare economics.

PREREQUISITE: Three of: || ECON 1050 or either ECON 1101 or Placement in earned ECON 1101 or Placement in ECON 2000 Level|| and ECON 1102 or Placement in earned ECON 1102 or Placement in ECON 2000 Level|| and MATH 1600 or higher or Placement in MATH 1700 (M) or Placement in MATH 1750 (M) or Placement in MATH 1800 (M) or Placement in 2000, 2020, 2206 (M)

ECON 2556 b-MCSR. Macroeconomics. Matthew Botsch. Every Semester. Fall 2019

An intermediate-level study of contemporary national income, employment, and inflation theory. Consumption, investment, government receipts, government expenditures, money, and interest rates are examined for their determinants, interrelationships, and role in determining the level of aggregate economic activity. Policy implications are drawn from the analysis.

PREREQUISITE: Three of: || ECON 1050 or either ECON 1101 or Placement in earned ECON 1101 or Placement in ECON 2000 Level|| and ECON 1102 or Placement in earned ECON 1102 or Placement in ECON 2000 Level|| and MATH 1600 or higher or Placement in MATH 1700 (M) or Placement in MATH 1750 (M) or Placement in MATH 1800 (M) or Placement in 2000, 2020, 2206 (M)

ECON 2557 b-MCSR. Economic Statistics. The Department. Every Semester. Fall 2019

An introduction to the data and statistical methods used in economics. A review of the systems that generate economic data and the accuracy of such data is followed by an examination of the statistical methods used in testing the hypotheses of economic theory, both micro- and macro-. Probability, random variables and their distributions, methods of estimating parameters, hypothesis testing, regression, and correlation are covered. The application of multiple regression to economic problems is stressed. Students who have taken Mathematics 2606 are encouraged to take Economics 3516 instead of this course.

PREREQUISITE: Three of: | | ECON 1050 or either ECON 1101 or Placement in earned ECON 1101 or Placement in ECON 2000 Level | | and ECON 1102 or Placement in earned ECON 1102 or Placement in ECON 2000 Level | | and MATH 1600 or higher or Placement in MATH 1700 (M) or Placement in MATH 1750 (M) or Placement in MATH 1800 (M) or Placement in 2000, 2020, 2206 (M)

ECON 3305 b. Game Theory and Strategic Behavior. Daniel Stone. Non-Standard Rotation. Fall 2019

A rigorous introduction to mathematical game theory, the theory of strategic behavior. Topics include dominance, rationalizability, pure and mixed strategy Nash equilibrium, sequential and repeated games, subgame perfect equilibrium, bargaining, and games of incomplete information. Applications to business, politics, and sports discussed.

PREREQUISITE: ECON 2555

ECON 3401 b. Financial Economics. Matthew Botsch. Non-Standard Rotation. Fall 2019

An introduction to the economics of finance using the tools of intermediate microeconomic theory. Explores the economic role of financial markets in determining the price of risk, allocating capital across space, and moving economic value through time. Particular emphasis on questions of market efficiency and social usefulness. Topics likely to include choice under uncertainty, the time value of money, portfolio optimization, the Capital Asset Pricing Model, the Efficient Market Hypothesis, options and derivatives, and the Modigliani-Miller Theorem. Formerly Economics 3301. Not open to students with credit for Economics 2301 taken in the fall 2014 or fall 2015 semesters.

PREREQUISITE: ECON 2555

ECON 3510 b-MCSR. Poverty and Economic Development. Proxy Instructor Listed for Registration. Rachel Connelly. Non-Standard Rotation. Fall 2019

Seminar. Examines the issue of poverty in developing countries and considers policy interventions and their potential consequences. Begins by broadly characterizing poverty in developing countries before examining the intersection of poverty and such topics as education, risk and shocks, health, and the distribution of resources within households. Teaches current techniques for causal identification in applied microeconomics using examples from a variety of contexts including Sub-Saharan Africa and Asia.

PREREQUISITE: Two of: | | ECON 2555 | | and ECON 2557

ECON 3516 b. Econometrics. Proxy Instructor Listed for Registration. Rachel Connelly. Every Fall. Fall 2019

Seminar. A study of the mathematical formulation of economic models and the statistical methods of testing them. A detailed examination of the general linear regression model, its assumptions, and its extensions. Applications to both micro- and macroeconomics are considered. Though most of the course deals with single-equation models, an introduction to the estimation of systems of equations is included. An empirical research paper is required.

PREREQUISITE: Two of: || ECON 2557 or MATH 2606 || and MATH 1600 or higher or Placement in MATH 1700 (M) or Placement in MATH 1750 (M) or Placement in MATH 1800 (M) or Placement in 2000, 2020, 2206 (M)

ECON 3518 b. Environmental and Natural Resource Economics. Guillermo Herrera. Non-Standard Rotation. Fall 2019

Seminar. Analysis of externalities and market failure; models of optimum control of pollution and efficient management of renewable and nonrenewable natural resources such as fisheries, forests, and minerals; governmental vs. other forms of control of common-pool resources; and benefit-cost analysis of policies, including market-based and non-market valuation. Permission of instructor required during add/drop for students who have credit for Economics 2218. (Same as ENVS 3918)

PREREQUISITE: Two of: || ECON 2555 || and ECON 2557

ECON 3531 b. The Economics of the Family. Rachel Connelly. Non-Standard Rotation. Fall 2019

Seminar. Microeconomic analysis of the family, gender roles, and related institutions. Topics include marriage, fertility, married women's labor supply, divorce, and the family as an economic organization. (Same as GSWS 3302)

PREREQUISITE: Two of: || ECON 2555 || and ECON 2557

ECON 3540 b. Law and Economics. Zorina Khan. Non-Standard Rotation. Fall 2019

Seminar. Law and economics is one of the most rapidly growing areas in the social sciences. The field applies the concepts and empirical methods of economics to further our understanding of the legal system. Explores the economic analysis of law and legal institutions, including the economics of torts, contracts, property, crime, courts, and dispute resolution. Also focuses on topics in law and economics such as antitrust and regulation, corporations, the family, labor markets, product liability, and intellectual property. Students are introduced to online sources of information in law, and are required to apply economic reasoning to analyze landmark lawsuits in each of these areas. Not open to students who have credit for Economics 3541.

PREREQUISITE: ECON 2555

Education

EDUC 1101 c-ESD. Contemporary American Education. Doris Santoro. Every Semester. Fall 2019

What are the purposes of public education and what makes it public? Do schools serve an individual good or a collective good? Is Americas system of public education organized to serve these purposes? What is the public's responsibility towards public education? How do current school reforms affect various stakeholders? The primary objective is to examine the cultural, social, economic, and institutional dilemmas confronting public schooling in the United States today. By approaching these dilemmas as unsolved puzzles instead of systematic failures, important insights are gained into the challenges confronting a democratic society historically committed to the public provision of education. Considers which theories and purposes of education motivate current reform efforts. Likewise, examines who shapes public discourse about public education and by what strategies. Employs a mixed approach of reading, discussion, and class-based activities to explore important educational issues including school reform and finance, charter schools, busing, vouchers, unequal educational opportunities and outcomes; and accountability, standardization, and testing.

EDUC 2203 c-ESD. Educating All Students. Doris Santoro. Every Fall. Fall 2019

An examination of the economic, social, political, and pedagogical implications of universal education in American classrooms. Focuses on the right of every student, including students with physical and/or learning differences, and those who have been identified as gifted, to an equitable education. Requires a minimum of twenty-four hours of observation in a local secondary school.

PREREQUISITE: EDUC 1101

EDUC 2204 c. Educational Policy. Lauren Saenz. Non-Standard Rotation. Fall 2019

An examination of educational policy-making and implementation at the federal, state, and local levels. Particular attention is paid to the relationship between policy and school practice and the role practitioners play in policy-making. Policies explored include school choice, standards and accountability, No Child Left Behind, Race to the Top, the Common Core, and Proficiency-Based Instruction.

PREREQUISITE: EDUC 1020 or EDUC 1101

EDUC 3301 c. Teaching and Learning. Alison Riley Miller. Doris Santoro. Every Fall. Fall 2019

A study of what takes place in classrooms: the methods and purposes of teachers, the response of students, and the organizational context. Readings and discussions help inform students' direct observations and written accounts of local classrooms. Peer teaching is an integral part of the course experience. Requires a minimum of thirty-six hours of observation in a local secondary school. Education 3302 {303} must be taken concurrently with this course. In order to qualify for this course students must have Education 1101 {101} and 2203 {203}; junior or senior standing; a concentration in a core secondary school subject area (English: four courses in English; foreign language: four courses in the language; life science: four courses in biology; mathematics: four courses in mathematics; physical science: three courses in chemistry, earth and oceanographic science, or physics and one course in one of the other departments listed; or social studies: two courses in history and two courses in anthropology, economics, government, history, psychology or sociology. Permission of the instructor.

EDUC 3302 c. Curriculum Development. Alison Riley Miller. Doris Santoro. Every Fall. Fall 2019

A study of the knowledge taught in schools; its selection and the rationale by which one course of study rather than another is included; its adaptation for different disciplines and for different categories of students; its cognitive and social purposes; the organization and integration of its various components. Education 3301 must be taken concurrently with this course. In order to qualify for this course, students must have Education 1101 and 2203; junior or senior standing; and a concentration in a core secondary school subject area (English: four courses in English; foreign language: four courses in the language; life science: four courses in biology; mathematics: four courses in mathematics; physical science: three courses in chemistry, earth and oceanographic science, or physics and one course in one of the other departments listed; or social studies: two courses in history and two courses in anthropology, economics, government, history, psychology, or sociology). Permission of the instructor.

EDUC 3333 c. Contemporary Research in Education Studies. Lauren Saenz. Every Year. Fall 2019

Draws together different theoretical, policy, and practice perspectives in education in the United States around a specific topic of inquiry determined by the instructor. Examines methodological perspectives in the field, e.g., quantitative, qualitative, and humanistic research. Students read original, contemporary research and develop skills to communicate with various educational stakeholders.

PREREQUISITE: Three of: | either EDUC 2000 - 2250 or EDUC 2252 - 2969 | | and either EDUC 2000 - 2250 or EDUC 2252 - 2969 | | and EDUC 1101

English

ENGL 1007 c. Joan of Arc. Emma Maggie Solberg. Non-Standard Rotation. Fall 2019

Explores the cultural history of Joan of Arc—heretic, witch, martyr, and saint—beginning with the historical records of her trial and execution and then moving through the many lies and legends that proliferated about her in the centuries after her death. Compares and contrasts the drastically different representations of her in texts, films, paintings, and songs ranging from the medieval to the modern.

ENGL 1009 c. The Ravages of Love. David Collings. Non-Standard Rotation. Fall 2019

Examines examples of overwhelming love in eighteenth and nineteenth century novels from England, France, and Germany. Through close reading and intensive writing, considers the intersection of love with the difficulties created by class and gender difference; the power of desire to challenge social convention and the terms of ordinary reality; the confrontations between love, egotism, and seduction; and the implications of love's attempt to dare all, even at the risk of death. Discusses the political overtones of these narratives of love and their place within the construction of gender, sexuality and subjectivity in Western culture. Authors may include Prevost, Goethe, Laclos, Hays, Austen, Bronte, and Flaubert. (Same as GSWS 1009)

ENGL 1012 c. Jane Austen. Ann Kibbie. Non-Standard Rotation. Fall 2019

A study of Jane Austen's major works, *Sense and Sensibility*, *Pride and Prejudice*, *Emma*, *Mansfield Park*, and *Persuasion*. (Same as GSWS 1025)

ENGL 1026 c. Fictions of Freedom. Tess Chakkalakal. New Course. Fall 2019

Explores the ways in which the idea of American freedom has been defined both with and against slavery through readings of legal and literary texts. Students come to terms with the intersections between the political, literary, and historical concept of freedom and its relation to competing definitions of American citizenship. (Same as AFRS 1026)

ENGL 1027 c. The Real Life of Literature. Guy Mark Foster. Non-Standard Rotation. Fall 2019

Examines literary fiction set against the backdrop of actual historical events, such as wars, social protest events, terrorist attacks, earthquakes, the HIV/AIDS pandemic, the Holocaust, and political assassinations. Students not only analyze the literary strategies writers employ to fictionalize history and to historicize fiction, but also explore the methodological and philosophical implications of such creative gestures. In the end, this two-fold process transforms both categories in ways that permanently unsettle the status of fiction as merely imaginative and the historical as merely fact. Potential authors: Virginia Woolf, Octavia Butler, Yasmina Khadra, David Mura, Nicole Krause, Andrew Holleran, among others.

ENGL 1034 c. America in the World. Morten Hansen. Non-Standard Rotation. Fall 2019

Examines America as it is seen in literature from home and abroad. How have American authors described America's place in the world? How has America's present role as the sole global superpower affected how we view its past? What does America look like today from the perspective of the third world? Explores the way literature represents space and time, from current events to world history. Authors include Henry James, James Baldwin, Toni Morrison, Jamaica Kincaid, and Chimamanda Ngozi Adichie.

ENGL 1060 c. English Composition. Aaron Kitch. Non-Standard Rotation. Fall 2019

Practice in developing the skills needed to write and revise college-level expository essays. Explores the close relationship between critical reading and writing. Assignment sequences and different modes of analysis and response enable students to write fully developed expository essays. Does not count toward the major or minor in English.

ENGL 1105 c. Introduction to Poetry. Marilyn Reizbaum. Non-Standard Rotation. Fall 2019

An examination of how to read a poem and how the poem is made. The course focuses on the evolution of poetic forms: sonnets, villanelles, stanza poems, elegy and free forms (including free verse and spoken word) will be studied, drawn from a variety of historical, national and cross-cultural traditions and anti-traditions.. Students are introduced to the mechanics of poetry, such as prosody, poetic devices, ekphrasis. For those who love or fear poetry.

ENGL 1117 c-ESD. Introduction to Environmental Literature. Samia Rahimtoola. Non-Standard Rotation. Fall 2019

Introduces students to literature that features the relationship of humans with their 'natural' environment. Asks how our relationship to the environment has changed over the last three centuries, and considers how those changes are represented and resisted by literary texts, such as novels, nonfiction essays, poems, and film. Key topics include naturalism, place-based writing, farming and agrarianism, wilderness, and literatures of environmental justice. Devotes significant attention to examining the cultural heritage we bring to bear on our encounters with nature and the ways literature offers opportunities to rethink the major paradigms of environmental thought. Authors may include Henry David Thoreau, Aldo Leopold, Willa Cather, Helena María Viramontes, Leslie Marmon Silko, and Octavia Butler. Not open to students who have taken English 2552/Environmental Studies 2452 (Placing Modernity). (Same as ENVS 1117)

ENGL 1228 c. Introductory Fiction Workshop. Brock Clarke. Every Semester. Fall 2019

Introduces the beginning fiction writer to the craft of fiction writing, with an emphasis on the literary short story. Studies a wide range of published stories as well as examines student work. Critical writings on craft introduce students to technical aspects of the form: character, dialogue, setting, point of view, scene, summary, etc. Exercises and short assignment lead to longer works. All are expected to read, comment on, and discuss in depth each story that passes through the workshop, as well as to complete a major revision. Note: Fulfills the creative writing concentration requirement for English majors.

ENGL 1301 c-ESD. Black Women's Lives as the History of Africana Studies: Eighteenth and Nineteenth Century. Judith Casselberry. Tess Chakkalakal. Non-Standard Rotation. Fall 2019

In conjunction with the 50th anniversary of Africana Studies at Bowdoin, this year long two-part course will address debates and issues of Africana Studies through the lives of Black Women. In part I, students will focus on Early Africana Studies texts, reading works by and about Phillis Wheatley, Sojourner Truth, Frances Harper, Ida B. Wells, and Anna Julia Cooper. We will take up differences and continuities between these thinkers to understand the politics of respectability, work, representation, sexuality, and family across multiple historical contexts. (Same as AFRS 1109, GSWS 1301)

ENGL 2000 c. Contemporary Literature. Samia Rahimtoola. New Course. Fall 2019

Intermediate Seminar. Examines "the contemporary" as both our current historical moment in the twenty-first century and an experience of coming to grips with the present. Questions how writers conceive of the now, and how their representations of the present can help in understanding emergent phenomena such as drone warfare, climate crisis, Black Lives Matter, and the function of art in the current century. To help assess what, if anything, might be new about contemporary life and literature, explores various critical and theoretical approaches to the present. Focuses on twenty-first-century American texts including poetry, prose, and a significant body of cross-genre works. Authors may include Margaret Atwood, Junot Diaz, Renee Gladman, Ben Lerner, Dawn Lundy Martin, Maggie Nelson, and Claudia Rankine.

ENGL 2104 c. King Arthur and the Knights of the Round Table. Emma Maggie Solberg. Non-Standard Rotation. Fall 2019

Explores the legends of King Arthur, Merlin, Queen Guinevere, and the knights of the Round Table, progressing from the stories' origins in medieval myth and romance through to their many Renaissance, Victorian, and modern revivals. Texts include: Geoffrey of Monmouth, "History of the Kings of Britain"; Sir Gawain and "The Green Knight"; Thomas Malory, "The Death of Arthur"; Tennyson, "Idylls of the King"; "Monty Python and the Holy Grail." Note: Fulfills the pre-1800 requirement for English majors.

ENGL 2205 c. Shakespeare's Tragedies: Pathos and Politics. Aaron Kitch. Every Other Year. Fall 2019

Explores Shakespeare's tragedies with special attention to their theatrical expansiveness and political importance. Also considers central questions problems of plot and character, as well as foundational issues of race and gender in the plays, which will include Titus Andronicus, Romeo and Juliet, Richard III, Julius Caesar, Hamlet, and King Lear. Some classical accounts of tragedy by Aristotle, Hegel, Nietzsche, and more contemporary authors will guide our conversations. In order to experience as well as study the plays at the heart of the course, we will watch recorded performances from the newly available Globe on Screen database. Students will also have the opportunity to perform scenes from the plays in optional scene study groups. Note: Fulfills the pre-1800 literature requirement for English majors.

ENGL 2290 c. Milton. Ann Kibbie. Non-Standard Rotation. Fall 2019

A critical study of Milton's major works in poetry and prose, with special emphasis on "Paradise Lost." Note: Fulfills the pre-1800 literature requirement for English majors.

ENGL 2352 c. Natural Supernaturalism. David Collings. Non-Standard Rotation. Fall 2019

Examines the Romantic attempt to blend aspects of the transcendental – such as the sublime, immortality, and divinity – with ordinary life, the forms of nature, and the resources of human consciousness. Discusses theories of the sublime, poetry of the English landscape, mountaintop experiences, tales of transfiguration, and evocations of intimacy with nature. Explores the difficulties of representing the transcendental in secular poetry and the consequences of natural supernaturalism for our own understanding of nature. Authors include Burke, Wordsworth, Coleridge, Kant, and Shelley. (Same as ENV5 2438)

ENGL 2426 c. The Horror Film in Context. Aviva Briefel. Non-Standard Rotation. Fall 2019

Examines the genre of the horror film in a range of cultural, theoretical, and literary contexts. Considers the ways in which horror films represent violence, fear, and paranoia; their creation of identity categories; their intersection with contemporary politics; and their participation in such major literary and cinematic genres as the gothic, comedy, and family drama. Texts may include works by Craven, Cronenberg, De Palma, Freud, Hitchcock, Kristeva, Kubrick, Poe, Romero, and Shelley.

Note: Fulfills the film theory requirement for Cinema Studies minors. (Same as CINE 2426, GSWS 2426)

ENGL 2653 c. Interracial Narratives. Guy Mark Foster. Non-Standard Rotation. Fall 2019

Violence and interracial sex have long been conjoined in U.S. literary, televisual, and filmic work. The enduring nature of this conjoining suggests there is some symbolic logic at work in these narratives, such that black/white intimacy functions as a figural stand-in for negative (and sometimes positive) commentary on black/white social conflict. When this happens, what becomes of “sex” as a historically changing phenomenon when it is yoked to the historically unchanging phenomenon of the “interracial”? Although counter-narratives have recently emerged to compete with such symbolic portrayals, i.e. romance novels, popular films and television shows, not all of these works have displaced this earlier figural logic; in some cases, this logic has merely been updated. Explores the broader cultural implications of both types of narratives. Possible authors/texts: Richard Wright, Chester Himes, Ann Petry, Lillian Smith, Jack Kerouac, Frantz Fanon, Kara Walker, Amiri Baraka, Alice Walker, Octavia Butler, John R. Gordon, Kim McLarin, *Monster’s Ball*, *Far From Heaven*, and *Sex and the City*.

(Same as AFRS 2653, GSWS 2283)

ENGL 2852 c. Creative Writing: Poetry II. Anthony Walton. Non-Standard Rotation. Fall 2019

Builds upon the method of studying and crafting poetry encountered in English 1225. Students exposed to advanced methods of writing and interpretation, including the in-depth study of one particular poet’s oeuvre and evolution. Students encouraged to develop a more comprehensive view of their own individual poetic practices. Each week students responsible for evaluating the assigned reading and for writing poems. Note: Fulfills the creative writing concentration requirement for English majors.

ENGL 2860 c. Character, Plot, Scene, Theme, Dream: The Fundamentals of Screenwriting. Anthony Walton. Non-Standard Rotation. Fall 2019

Introduction to the basic practices of writing for the screen, including concepts, techniques, and predictable problems. Students study and analyze films and scripts from the perspective of the screenwriter and complete a writing project of their own. Note: Fulfills the creative writing concentration requirement for English majors. (Same as CINE 2860)

ENGL 2861 c. Advanced Narrative Nonfiction: Writing About the History, Culture, and Politics of Food. Alex Marzano-Lesnevich. Non-Standard Rotation. Fall 2019

Students read a wide range of published works about the history, culture, and politics of food— including writings by Henry David Thoreau, M.F.K. Fisher, Edna Lewis, and Michael Pollan—and write and revise substantial narratives that combine personal and researched material. Focuses on the craft of writing, particularly on structure and voice. All students are expected to fully participate in weekly workshop discussions. Note: Fulfills the creative writing concentration requirement for English majors.

ENGL 3002 c. James Joyce Revolution. Marilyn Reizbaum. Non-Standard Rotation. Fall 2019

An examination of James Joyce's signal contributions to modern writing and critical theories. Reading includes the major works ("Dubliners," "Portrait of the Artist as a Young Man," "Ulysses"), essays by Joyce, and writings by others who testify to the Joyce mystique, e.g., Oliver St. John Gogarty, T. S. Eliot, Virginia Woolf, Jacques Derrida, Seamus Heaney, Maud Ellmann.

ENGL 3034 c. Victorian Realism: Dickens and Eliot. Aviva Briefel. Non-Standard Rotation. Fall 2019

Examines the genre of Victorian realism through major works by Charles Dickens and George Eliot. Among other aspects, we will consider the ways in which each author works to create the "real" in their novels; study the idea of verisimilitude as a literary and ideological concept; and think about narrative form in relation to issues of gender, class, sexuality, and race. Engagement with literary criticism on these works will also be central to our discussions.

Environmental Studies

ENVS 1027 b. The Politics of Climate Change. Laura Henry. Every Other Fall. Fall 2019

Provides an overview of where climate politics is happening and which actors are involved. Examines the politics of climate change at multiple levels—from the individual to global governance—and reviews climate policy in different countries. Pays particular attention to cases where active policy making or public mobilization around climate is occurring, asking why we see initiative and innovation in climate policy in these cities, states, and international venues and not elsewhere. Considers themes such as how climate policy is developed in democracies and authoritarian regimes, how climate policy may affect economic development, the role of non-state actors such as NGOs and business groups in climate politics, and the ethical implications of different climate policy options. (Same as GOV 1027)

ENVS 1101 Intro to Environmental Studies. Connie Chiang. Dharni Vasudevan. Every Fall. Fall 2019

An interdisciplinary introduction to the environment framed by perspectives from the natural sciences, social sciences, and arts and humanities. Surveys past and present status of scientific knowledge about major global and regional problems, explores both successes and inadequacies of environmental ideas to address specific crises, and assesses potential responses of governments, corporations, and individuals. Topics include food and agriculture, pollution, fisheries, and climate change and energy. Other subjects include biodiversity, population, urbanization, consumption, environmental justice, human and ecological health, and sustainability.

ENVS 1117 c-ESD. Introduction to Environmental Literature. Samia Rahimtoola. Non-Standard Rotation. Fall 2019

Introduces students to literature that features the relationship of humans with their 'natural' environment. Asks how our relationship to the environment has changed over the last three centuries, and considers how those changes are represented and resisted by literary texts, such as novels, nonfiction essays, poems, and film. Key topics include naturalism, place-based writing, farming and agrarianism, wilderness, and literatures of environmental justice. Devotes significant attention to examining the cultural heritage we bring to bear on our encounters with nature and the ways literature offers opportunities to rethink the major paradigms of environmental thought. Authors may include Henry David Thoreau, Aldo Leopold, Willa Cather, Helena María Viramontes, Leslie Marmon Silko, and Octavia Butler. Not open to students who have taken English 2552/Environmental Studies 2452 (Placing Modernity). (Same as ENGL 1117)

ENVS 1155 c-IP. Into the Wild. Jens Klenner. Discontinued Course. Fall 2019

An examination of the mix of conflicting ideas that shape the many conceptions of “wilderness.” Among other questions, explores the ideas of wilderness as a space without or preceding culture and civilization, as a mental state, and as an aesthetic experience. Considers the place of wilderness in the ‘urban jungle’ of cities. Puts Anglo-American and European theories and images of the wilderness into dialogue by comparing literary works, film, artworks, and philosophical texts. No knowledge of German is required. (Same as GER 1155)

ENVS 2217 a-MCSR, INS. Current Topics in Marine Science. Olaf Ellers. Amy Johnson. Brittany Jellison. Every Fall. Fall 2019

An advanced seminar focusing on aspects of marine science relevant to student research projects in the Bowdoin Marine Science Semester. Students choose topics and learn to (1) search for information in the scientific literature; (2) evaluate the utility of papers to their research topic; (3) spot holes in existing understanding; (4) formulate hypothesis driven research questions; (5) integrate across research papers and apply that integrated knowledge to their own topic. Students will also advance their ability to write research plans and papers including producing a grant proposal modeled on a National Science Foundation Graduate Research Fellowship Program (GRFP). Students will also visit several Maine Marine Research facilities and infrastructure to understand the current state of marine fisheries, regulatory and research activities in Maine. Taught in residence at Schiller Coastal Studies Center. Topics in Marine Science is a course-module in the Bowdoin Marine Science Semester and is taught with three other co-requisite courses. (Same as BIOL 3117)

PREREQUISITE: Two of: | either BIOL 1102 or BIOL 1109 | | and MATH 1000 or higher

ENVS 2221 a. Biogeochemistry: An Analysis of Global Change. Michele LaVigne. Every Fall. Fall 2019

Understanding global change requires knowing how the biosphere, geosphere, oceans, ice, and atmosphere interact. An introduction to earth system science, emphasizing the critical interplay between the physical and living worlds. Key processes include energy flow and material cycles, soil development, primary production and decomposition, microbial ecology and nutrient transformations, and the evolution of life on geochemical cycles in deep time. Terrestrial, wetland, lake, river, estuary, and marine systems are analyzed comparatively. Applied issues are emphasized as case studies, including energy efficiency of food production, acid rain impacts on forests and aquatic systems, forest clearcutting, wetland delineation, eutrophication of coastal estuaries, ocean fertilization, and global carbon sinks. Lectures and three hours of laboratory or fieldwork per week. (Same as EOS 2005)

PREREQUISITE: EOS 1100 - 1999 or BIOL 1102 or BIOL 1109 or CHEM 1092 or CHEM 1102 or CHEM 1109 or ENVS 1102 or ENVS 1104 or ENVS 1515

ENVS 2223 a-MCSR, INS. Plant Ecophysiology. Barry Logan. Every Fall. Fall 2019

Examines the functional attributes of plants and the manner in which they vary across the plant kingdom by the processes of evolution and acclimation. Topics of focus include photosynthesis and protection against high-light stress, the acquisition and distribution of water and mineral nutrients, and environmental and hormonal control of development. Special topics discussed may include plant parasitism, carnivory, the origins and present state of agriculture, plant responses to global climate change, plant life in extreme environments, and the impacts of local land-use history on plant communities. Contemporary research instrumentation is used in weekly laboratories, some conducted in the field, to enable first-hand exploration of phenomena discussed in lecture. (Same as BIOL 2210)

PREREQUISITE: BIOL 1102 or BIOL 1109 or Placement in BIOL 2000 level

ENVS 2227 a-INS. Ecology. Mary Rogalski. Shana Stewart Deeds. Every Fall. Fall 2019

Ecology, the study of how organisms interact with each other and their environment, incorporates topics from how organisms cope with environmental stressors to global carbon cycling. Addresses current questions in ecology, from global change to food security to invasive species. Lectures, labs, primary and popular literature emphasize how scientists use the tenets of ecology to address current environmental issues. Labs, excursions, and student research include ecological studies of plant-insect interactions, collection of long-term data on salamander populations, and emphasis on the natural history of midcoast Maine. An optional field trip will be included (details TBA). (Same as BIOL 2327)

PREREQUISITE: BIOL 1102 or BIOL 1109 or ENVS 2201 (same as BIOL 1158 and CHEM 1105) or Placement in BIOL 2000 level

ENVS 2233 a-MCSR, INS. Methods in Ocean Change Ecology. Brittany Jellison. Amy Johnson. Olaf Ellers. Every Fall. Fall 2019

Explores how marine organisms, populations, communities, and ecosystems will respond to global ocean change. Concepts in ecology, behavior, physiology, and evolution will be highlighted to demonstrate how marine systems are affected by ocean change factors such as warming, ocean acidification, hypoxia, habitat loss, and invasive species. Emphasizes in-depth discussion of key literature to exemplify the theory, study design, and analysis tools marine scientists employ to research current and projected ocean change. Also integrates laboratory, fieldwork, and computer activities to illustrate approaches to monitoring and predicting shifts in biological communities. A trip to Hawaii will allow students to get hands on experience monitoring ecosystem health and change in a coral reef system. Taught in residence at Schiller Coastal Studies Center. Ocean change ecology is a course-module in the Bowdoin Marine Science Semester and is taught with three other co-requisite courses. (Same as BIOL 2503)

PREREQUISITE: Two of: || either BIOL 1102 or BIOL 1109 || and MATH 1000 or higher

ENVS 2270 a. Geomorphology: Form and Process at the Earth's Surface. Proxy Instructor Listed for Registration. Phil Camill. Every Other Fall. Fall 2019

Earth's surface is marked by the interactions of the atmosphere, water and ice, biota, tectonics, and underlying rock and soil. Even familiar landscapes beg questions on how they formed, how they might change, and how they relate to patterns at both larger and smaller scales. Examines Earth's landscapes and the processes that shape them, with particular emphasis on rivers, hillslopes, and tectonic and climatic forcing. (Same as EOS 2345)

PREREQUISITE: EOS 2005 (same as ENVS 2221) or ENVS 2221 or EOS 1105

ENVS 2287 a. Poles Apart: Exploration of Earth's High Latitudes. Collin Roesler. Non-Standard Rotation. Fall 2019

Compares and contrasts the tectonic evolution, geography, climate, glaciers and sea ice, ocean circulation and ocean biology of the Arctic and Antarctic regions. Emphasis on the Polar Regions' role in global climate regulation and the sensitivity of these regions to climate change. In addition to scientific readings (textbook chapters and journal articles), students read exploration journals and polar biographies focused on polar exploration from the turn of the twentieth century. Fulfills the within-department elective in the EOS major.

Taught in collaboration with ANTH 2572 Contemporary Arctic Environmental and Cultural Issues in fall 2019 to encourage interdisciplinary Arctic learning at the 2000-level. Students registering for both courses need only fulfill prerequisites for one of the courses; permission of instructor will override missing prerequisites.

(Same as EOS 2530)

PREREQUISITE: EOS 1105 or EOS 1305 (same as ENVS 1104) or EOS 1505 (same as ENVS 1102) or EOS 2005 (same as ENVS 2221)

ENVS 2304 b. Environmental Law and Policy. Conrad Schneider. Every Other Fall. Fall 2019

Critical examination of some of the most important American environmental laws and their application to environmental problems that affect the United States and the world. Students learn what the law currently requires and how it is administered by federal and state agencies, and are encouraged to examine the effectiveness of current law and consider alternative approaches. (Same as GOV 2915)

ENVS 2312 b-ESD, IP. Contemporary Arctic Environmental and Cultural Issues. Susan Kaplan. Krista Van Vleet. Non-Standard Rotation. Fall 2019

Throughout the Arctic, northern peoples face major environmental changes and cultural and economic challenges. Landscapes, icescapes, and seascapes on which communities rely are being transformed, and arctic plants and animals are being affected. Many indigenous groups see these dramatic changes as endangering their health and cultural way of life. Others see a warming Arctic as an opportunity for industrial development. Addressing contemporary issues that concern northern peoples in general and Inuit in particular involves understanding connections between leadership, global environmental change, human rights, indigenous cultures, and foreign policies, and being able to work on both a global and local level. (Same as ANTH 2572)

PREREQUISITE: Two of: | either ANTH 1150 or ANTH 1101 or ANTH 1102 | | and ENVS 1101

ENVS 2314 b-ESD. Talking to Farmers and Fishermen: Social Science Field Methods for Environmental Policy Research. Shana Starobin. Every Fall. Fall 2019

Natural resource users—like farmers and fishermen—possess intimate knowledge of the complex socioecological systems where they live and work. How can researchers appropriately and ethically engage individual and community stakeholders as participants in environmental research? Through assignments, activities, and class excursions (lab), students will gain competence in collaborative field research skills, including the ethical conduct of research with human subjects, participant observation, conducting interviews and focus groups, writing up field notes, developing metadata, and establishing protocols for data management. Students will also practice preliminary data analysis—transcription and text analysis of field collected data, descriptive statistics, and identification of future research questions. (Same as GOV 2902)

PREREQUISITE: ENVS 2330 (same as GOV 2910) or ENVS 2313 (same as GOV 2482 and LAS 2513)

ENVS 2330 b-IP. Environmental Policy and Politics. Shana Starobin. Eileen Sylvan Johnson. Every Fall. Fall 2019

Explores the political, economic, legal, ethical, and institutional dimensions of the environmental policy-making process. Examines the formation and implementation of regulatory institutions and policies across a range of issues in the U.S. and internationally—including terrestrial, coastal and marine natural resources management, biodiversity, water and air pollution, sustainable development, and environmental justice. Prepares students to analyze historical cases as well as contrive and evaluate competing policy alternatives to emerging problems. (Same as GOV 2910)

PREREQUISITE: ENVS 1101

ENVS 2333 a-MCSR, INS. Benthic Ecology. Amy Johnson. Olaf Ellers. Brittany Jellison. Every Fall. Fall 2019

The principles of ecology emphasizing the hard- and soft-bottom communities of Casco Bay and Harpswell Sound. Field trips and field exercises demonstrate the quantitative principles of marine ecological research, including good practices in sampling designs and field experiments. A class field project designs and implements a long-term study, based at the Bowdoin Marine Laboratory, to monitor and detect changes in community structure driven by climate change in the twenty-first century. Assumes a basic knowledge of biological statistics. Taught in residence at the Schiller Coastal Studies Center. Benthic Ecology is a course-module in the Bowdoin Marine Science Semester and is taught with three other co-requisite courses. (Same as BIOL 2333)

ENVS 2438 c. Natural Supernaturalism. David Collings. Non-Standard Rotation. Fall 2019

Examines the Romantic attempt to blend aspects of the transcendental – such as the sublime, immortality, and divinity – with ordinary life, the forms of nature, and the resources of human consciousness. Discusses theories of the sublime, poetry of the English landscape, mountaintop experiences, tales of transfiguration, and evocations of intimacy with nature. Explores the difficulties of representing the transcendental in secular poetry and the consequences of natural supernaturalism for our own understanding of nature. Authors include Burke, Wordsworth, Coleridge, Kant, and Shelley. (Same as ENGL 2352)

ENVS 2449 c. History of Harpswell and the Coast of Maine. Sarah McMahon. Amy Johnson. Olaf Ellers. Non-Standard Rotation. Fall 2019

Examines the long history of Harpswell as part of the coast of Maine, and the research methodologies used to uncover and analyze that history from environmental, community, socioeconomic, political, racial and ethnic, and cultural perspectives. Topics include bonds and tensions in a peninsula and islands community; coastal agriculture and stone walls; inshore and deep-sea fisheries; shipbuilding and shipping; the Civil War; ethnic, religious, and cultural diversity; poverty and living on the margin; and the rise of tourism. Culminates with an individual research project prospectus for a projected essay on an aspect of that history. Taught in residence at the Schiller Coastal Studies Center. History 2129/Environmental Studies 2449 is a course-module in the Bowdoin Marine Science Semester. Harpswell and Maine Coast History is a course-module in the Bowdoin Marine Science Semester and is taught with three other co-requisite courses. Note: This course is a part of the following field(s) of study: United States. (Same as HIST 2129)

ENVS 2475 c-IP, VPA. Ecocinema: China's Ecological and Environmental Crisis. Shu-chin Tsui. Every Other Spring. Fall 2019

Examines how China's economic development has caused massive destruction to the natural world and how environmental degradation affects the lives of ordinary people. An ecological and environmental catastrophe unfolds through the camera lens in feature films and documentaries. Central topics include the interactions between urbanization and migration, humans and animals, eco-aesthetics and manufactured landscapes, local communities and globalization. Considers how cinema, as mass media and visual medium, provides ecocritical perspectives that influence ways of seeing the built environment. The connections between cinema and environmental studies enable students to explore across disciplinary as well as national boundaries. Note: Fulfills the non-US cinema requirement and the film theory requirement for cinema studies minors. (Same as ASNS 2075, CINE 2075)

ENVS 3918 b. Environmental and Natural Resource Economics. Guillermo Herrera. Non-Standard Rotation. Fall 2019

Seminar. Analysis of externalities and market failure; models of optimum control of pollution and efficient management of renewable and nonrenewable natural resources such as fisheries, forests, and minerals; governmental vs. other forms of control of common-pool resources; and benefit-cost analysis of policies, including market-based and non-market valuation. Permission of instructor required during add/drop for students who have credit for Economics 2218. (Same as ECON 3518)

PREREQUISITE: Two of: | | ECON 2555 | | and ECON 2557

Gender, Sexuality and Women St

GSWS 1009 c. The Ravages of Love. David Collings. Non-Standard Rotation. Fall 2019

Examines examples of overwhelming love in eighteenth and nineteenth century novels from England, France, and Germany. Through close reading and intensive writing, considers the intersection of love with the difficulties created by class and gender difference; the power of desire to challenge social convention and the terms of ordinary reality; the confrontations between love, egotism, and seduction; and the implications of love's attempt to dare all, even at the risk of death. Discusses the political overtones of these narratives of love and their place within the construction of gender, sexuality and subjectivity in Western culture. Authors may include Prevost, Goethe, Laclous, Hays, Austen, Bronte, and Flaubert. (Same as ENGL 1009)

GSWS 1021 c. Bad Girls of the 1950s. Jennifer Scanlon. Non-Standard Rotation. Fall 2019

Explores the representation and life experiences of women who did not fit the cultural norm of suburban motherhood in 1950s America. Focuses on issues of class, race, sexuality, and gender in a decade shaped by fears about nuclear war and communism, and by social and political conformity. Topics include teenage pregnancy, women's grassroots political leadership, single womanhood, civil rights, emergent feminism, and, finally, the enduring cultural resonance of the apron-clad 1950s mom. Engages a variety of primary and secondary sources. Note: This course is part of the following field(s) of study: United States. (Same as HIST 1001)

GSWS 1025 c. Jane Austen. Ann Kibbie. Non-Standard Rotation. Fall 2019

A study of Jane Austen's major works, *Sense and Sensibility*, *Pride and Prejudice*, *Emma*, *Mansfield Park*, and *Persuasion*. (Same as ENGL 1012)

GSWS 1101 b-ESD. Introduction to Gender, Sexuality, and Women's Studies. Jennifer Scanlon. Every Year. Fall 2019

Introduces key concepts, questions, and methods that have developed within the interdisciplinary fields of gender, sexuality, and women's studies. Explores how gender norms differ across cultures and change over time. Examines how gender and sexuality are inseparable from other forms of identification--race, class, ability, and nationality. And considers the role that gender, sexuality, and other identity knowledges play in resisting sexism, racism, homophobia, and transphobia.

GSWS 1301 c-ESD. Black Women's Lives as the History of Africana Studies: Eighteenth and Nineteenth Century. Judith Casselberry. Tess Chakkalakal. Non-Standard Rotation. Fall 2019

In conjunction with the 50th anniversary of Africana Studies at Bowdoin, this year long two-part course will address debates and issues of Africana Studies through the lives of Black Women. In part I, students will focus on Early Africana Studies texts, reading works by and about Phillis Wheatley, Sojourner Truth, Frances Harper, Ida B. Wells, and Anna Julia Cooper. We will take up differences and continuities between these thinkers to understand the politics of respectability, work, representation, sexuality, and family across multiple historical contexts. (Same as AFRS 1109, ENGL 1301)

GSWS 2201 b-ESD. Feminist Theory. Shenila Khoja-Moolji. Non-Standard Rotation. Fall 2019

The history of women's studies and its transformation into gender studies and feminist theory has always included a tension between creating "woman," and political and theoretical challenges to that unity. Examines that tension in two dimensions: the development of critical perspectives on gender and power relations both within existing fields of knowledge, and within the continuous evolution of feminist discourse itself.

PREREQUISITE: GSWS 1000 - 2969 or GSWS 3000 or higher

GSWS 2237 b-ESD, IP. Family, Gender, and Sexuality in Latin America. Krista Van Vleet. Non-Standard Rotation. Fall 2019

Focuses on family, gender, and sexuality as windows onto political, economic, social, and cultural issues in Latin America. Topics include indigenous and natural gender ideologies, marriage, race, and class; machismo and masculinity; state and domestic violence; religion and reproductive control; compulsory heterosexuality; AIDS; and cross-cultural conceptions of homosexuality. Takes a comparative perspective and draws on a wide array of sources including ethnography, film, fiction, and historical narrative. (Same as ANTH 2737, LAS 2737)

PREREQUISITE: ANTH 1101 or SOC 1101

GSWS 2271 b-ESD, IP. The World's Most Dangerous Place?: Gender, Islam, and Politics in Contemporary Pakistan. Shenila Khoja-Moolji. Every Other Fall. Fall 2019

The January 2008 cover image of *The Economist* calls Pakistan "The world's most dangerous place." Indeed, Pakistan has been variously called a "terrorist state," a "failed state," and a "lawless frontier." This course engages in an academic study of the gender, religion, and politics in Pakistan to deepen students' understanding of the world's sixth-most populous country. We begin with accounts of the British colonization of South Asia and the nationalist movements that led to the creation of Pakistan. We then consider the myriad issues the nation has faced since 1947, focusing in particular on the debates surrounding gender and Islam, and Pakistan's entanglements with the US through the Cold War and the War on Terror. In addition to historical and ethnographic accounts, the course will center a number of primary texts (with English translations) including political autobiographies, novels, and terrorist propaganda materials. Students will write a research paper as the final product. (Same as ASNS 2611)

GSWS 2283 c. Interracial Narratives. Guy Mark Foster. Non-Standard Rotation. Fall 2019

Violence and interracial sex have long been conjoined in U.S. literary, televisual, and filmic work. The enduring nature of this conjoining suggests there is some symbolic logic at work in these narratives, such that black/white intimacy functions as a figural stand-in for negative (and sometimes positive) commentary on black/white social conflict. When this happens, what becomes of “sex” as a historically changing phenomenon when it is yoked to the historically unchanging phenomenon of the “interracial”? Although counter-narratives have recently emerged to compete with such symbolic portrayals, i.e. romance novels, popular films and television shows, not all of these works have displaced this earlier figural logic; in some cases, this logic has merely been updated. Explores the broader cultural implications of both types of narratives. Possible authors/texts: Richard Wright, Chester Himes, Ann Petry, Lillian Smith, Jack Kerouac, Frantz Fanon, Kara Walker, Amiri Baraka, Alice Walker, Octavia Butler, John R. Gordon, Kim McLarin, *Monster’s Ball*, *Far From Heaven*, and *Sex and the City*.

(Same as AFRS 2653, ENGL 2653)

GSWS 2315 c-IP. Love, Sex, and Desire in Russian Literature and Culture. Proxy Instructor Listed for Registration. Alyssa Gillespie. Non-Standard Rotation. Fall 2019

Russian culture is rich with depictions of the fundamental human experiences of love, sex, and desire. And while these depictions have often been subject to various forms of censorship, they have just as often served as expressions of dissent against rigid social, political, and artistic norms. This course explores the ideological and aesthetic significance of such themes as romance, lust, yearning, sexual violence, adultery, religious passion, poetic inspiration, unrequited love, celibacy, gender identity, sexuality, masturbation, pornography, body image, sexual frustration, castration, and witchcraft in Russian literature and the arts from medieval times to the present day. Not only do the works studied inscribe “difference” on the bodies of their subjects, but Russia also functions as a social “other” against which students examine their own cultural assumptions. Authors include Avvakum, Bulgakov, Chekhov, Dostoevsky, Gogol, Nabokov, Pushkin, Tolstoy, Tsvetaeva, Turgenyev, and Zamyatin. Taught in English. (Same as RUS 2315)

GSWS 2426 c. The Horror Film in Context. Aviva Briefel. Non-Standard Rotation. Fall 2019

Examines the genre of the horror film in a range of cultural, theoretical, and literary contexts. Considers the ways in which horror films represent violence, fear, and paranoia; their creation of identity categories; their intersection with contemporary politics; and their participation in such major literary and cinematic genres as the gothic, comedy, and family drama. Texts may include works by Craven, Cronenberg, De Palma, Freud, Hitchcock, Kristeva, Kubrick, Poe, Romero, and Shelley. Note: Fulfills the film theory requirement for Cinema Studies minors. (Same as CINE 2426, ENGL 2426)

GSWS 3302 b. The Economics of the Family. Rachel Connelly. Non-Standard Rotation. Fall 2019

Seminar. Microeconomic analysis of the family, gender roles, and related institutions. Topics include marriage, fertility, married women's labor supply, divorce, and the family as an economic organization. (Same as ECON 3531)

PREREQUISITE: Two of: || ECON 2555 || and ECON 2557

GSWS 3310 c. Gay and Lesbian Cinema. Tricia Welsch. Non-Standard Rotation. Fall 2019

Considers both mainstream and independent films made by or about gay men and lesbians. Four intensive special topics each semester, which may include classic Hollywood stereotypes and euphemisms; the power of the box office; coming of age and coming out; the social problem film; key figures; writing history through film; queer theory and queer aesthetics; revelation and revaluations of film over time; autobiography and documentary; the AIDS imperative. Writing intensive; attendance at evening film screenings is required. Note: Fulfills the film theory requirement for cinema studies minors. (Same as CINE 3310)

PREREQUISITE: CINE 1000 or higher or FILM 1000 or higher

GSWS 3900 c-IP, VPA. Women, Performance, and Activism in the Americas. Irina Popescu. Non-Standard Rotation. Fall 2019

Explores how women organize collectively to challenge political, economic, and social injustice in the late twentieth century across the Americas. In our investigation, we will turn to the intersection between art and activism as we look at a wide range of artistic practices, from literature and film to site-specific performance art and interventionist art. Throughout the semester, we will revisit the following questions as we consider the development of female activism in the Americas: (1) what is the relationship between feminism and activism, (2) can literature and performance be placed at the service of activism, (3) how does looking at the Americas as a whole enable us to better understand the shared injustices across the North/South divide? (Same as LAS 3900)

German

GER 1101 c. Elementary German I. The Department. Every Fall. Fall 2019

German 1101 is the first course in German language and culture and is open to all students without prerequisite. Facilitates an understanding of culture through language. Introduces German history and cultural topics. Three hours per week. Acquisition of four skills: speaking and understanding, reading, and writing. One hour of conversation and practice with teaching assistant. Integrated Language Media Center work.

GER 1155 c-IP. Into the Wild. Jens Klenner. Discontinued Course. Fall 2019

An examination of the mix of conflicting ideas that shape the many conceptions of “wilderness.” Among other questions, explores the ideas of wilderness as a space without or preceding culture and civilization, as a mental state, and as an aesthetic experience. Considers the place of wilderness in the ‘urban jungle’ of cities. Puts Anglo-American and European theories and images of the wilderness into dialogue by comparing literary works, film, artworks, and philosophical texts. No knowledge of German is required. (Same as ENVS 1155)

GER 2203 c. Intermediate German I: Germany within Europe. The Department. Every Fall. Fall 2019

Continued emphasis on the understanding of German culture through language. Focus on social and cultural topics through history, literature, politics, popular culture, and the arts. Three hours per week of reading, speaking, and writing. One hour of discussion and practice with teaching assistant. Language laboratory also available. Equivalent of German 1102 is required.

PREREQUISITE: GER 1102 or Placement in GER 2203

GER 2205 c-IP. Advanced German Texts and Contexts. Birgit Tautz. Jill Smith. Jens Klenner. Every Fall. Fall 2019

Designed to explore aspects of German culture in depth, to deepen the understanding of culture through language, and to increase facility in speaking, writing, reading, and comprehension. Topics include post-war and/or post-unification themes in historical and cross-cultural contexts. Particular emphasis on post-1990 German youth culture and language. Includes fiction writing, film, music, and various news media. Weekly individual sessions with the teaching fellow from the Johannes-Gutenberg-Universität-Mainz. Equivalent of German 2204 is required.

PREREQUISITE: GER 2204 or Placement in GER 2205

GER 3393 c-IP. Literary History of Destruction. Andrew Hamilton. Non-Standard Rotation. Fall 2019

Examines literary and artistic responses to the technological innovations and historical upheavals that characterized the twentieth century: science seemed to enable mass destruction and murder on an unprecedented scale, and two world wars, the Holocaust, and the threat of nuclear annihilation gave rise to a deep ambivalence about the power of technology in modern society and its reach into daily life. German-speaking Europe was a driving force behind these developments, and German and Austrian authors and artists articulated how technology changes the world, for better and for worse. Authors include, but are not limited to, Franz Kafka, Robert Musil, Stefan Zweig, Friedrich Dürrenmatt, Paul Celan, and Franz Fühmann. Considers film and visual art. Discussion and coursework in German.

PREREQUISITE: GER 2204 - 2969 or GER 3000 or higher or Placement in GER 3000 level

GER 3398 c-IP. Colors: Signs of Ethnic Difference 1800/1900/2000. Birgit Tautz. Jill Smith. Jens Klenner. Non-Standard Rotation. Fall 2019

In German culture, color/hue has played an important role in marking ethnic difference. Investigates the presence of color--metaphorical and actual, as provocative rhetoric and residual thought--in Germany today (e.g., around 2000), before exploring to what extent this presence is a lingering effect of the cultures around 1900 and 1800. In German culture color marks not only "racial difference" (e.g., "black" vs. "white"), but also geographical difference ("tropical colors") or diversity ("Bunte Republik Deutschland"). Considers changing discourse on color and ethnic difference in literary texts and films, all of which serve to illuminate the broader cultural context at three historical junctures: 1800, 1900, and 2000. Considers texts and films in conjunction with non-fiction, including examples from the visual arts (paintings, photographs, "Hagenbecks Völkerschauen"), medical and 'scientific,' encyclopedic entries, policy statements and advertisements ("Reklamemarken," commercials), and popular music (hip-hop, lyrics), recognizing, in the process, how German culture ("national identity") defines itself through and against color. Taught in German.

PREREQUISITE: GER 2204 - 2969 or GER 3000 or higher or Placement in GER 3000 level

Government and Legal Studies

GOV 1001 b. Representation, Participation, and Power in American Politics. Janet Martin. Non-Standard Rotation. Fall 2019

An introductory seminar in American national politics. Readings, papers, and discussion explore the changing nature of power and participation in the American polity, with a focus on the interaction between individuals (non-voters, voters, party leaders, members of Congress, the president) and political institutions (parties, Congress, the executive branch, the judiciary). Not open to students who have credit for or are concurrently taking Government 1100.

GOV 1002 b. Political Leadership. Andrew Rudalevige. Non-Standard Rotation. Fall 2019

We talk about political leadership all the time, mostly to complain about its absence. Leadership is surely one of the key elements of politics, but what does it mean? Do we know it when we see it? What kinds of leaders do we have, and what kinds do we want? How do modern democratic conceptions of governance mesh with older visions of authority? Of ethics? Looks both at real world case studies and the treatment of leadership in literature. Offers a wide variety of perspectives on leadership and the opportunities and dangers it presents—both for those who want to lead, and for those who are called upon to follow.

GOV 1005 b. Women of Color in Politics. Chryl Laird. New Course. Fall 2019

Explores the significant roles that women of color have played in American politics and around the world. Begins with the US context, starting in the antebellum era and moving forward by reading biographies/autobiographies that provide voice to the experiences faced by women of color in both traditional and non-traditional political spaces. These include women of color as close confidants to male political figures (first ladies, wives, and mistresses) and as politicians, judges, activists, and revolutionaries. Then shifts to a more global context considering the perspectives of women of color in countries where they have championed gender equality and feminism, and where they have become powerful political actors. (Same as AFRS 1005)

GOV 1011 b. Fundamental Questions: Exercises in Political Theory. Jean Yarbrough. Non-Standard Rotation. Fall 2019

Explores the fundamental questions in political life: What is justice? What is happiness? Are human beings equal or unequal by nature? Do they even have a nature, or are they “socially constructed”? Are there ethical standards for political action that exist prior to law and, if so, where do they come from? Nature? God? History? Readings may include Plato, Aristotle, the Bible, Machiavelli, Locke, Rousseau, Shakespeare, the American Founders, Tocqueville, and Nietzsche.

**GOV 1012 b. Human Being and Citizen. Michael Hawley. Non-Standard Rotation.
Fall 2019**

An introduction to the fundamental issues of political philosophy: human nature, the relationship between individual and political community, the nature of justice, the place of virtue, the idea of freedom, and the role of history. Readings span both ancient and modern philosophical literature. Authors may include Plato, Aristotle, Hobbes, Locke, Rousseau, the American Founders, Tocqueville, Mill, and Nietzsche.

**GOV 1026 b. Global Media and Politics. Henry Laurence. Non-Standard Rotation.
Fall 2019**

Examines the impact of media including the Internet, newspapers, and television, on politics and society in cross-national perspective. Asks how differences in the ownership and regulation of media affect how news is selected and presented, and looks at various forms of government censorship and commercial self-censorship. Also considers the role of the media and “pop culture” in creating national identities, perpetuating ethnic stereotypes, and providing regime legitimation; and explores the impact of satellite television and the Internet on rural societies and authoritarian governments. (Same as ASNS 1046)

GOV 1027 b. The Politics of Climate Change. Laura Henry. Every Other Fall. Fall 2019

Provides an overview of where climate politics happening and which actors are involved. Examines the politics of climate change at multiple levels—from the individual to global governance—and review climate policy in different countries. Pays particular attention to cases where active policy making or public mobilization around climate is occurring, asking why we see initiative and innovation in climate policy in these cities, states, and international venues and not elsewhere. Considers themes such as how climate policy is developed in democracies and authoritarian regimes, how climate policy may affect economic development, the role of non-state actors such as NGOs and business groups in climate politics, and the ethical implications of different climate policy options. (Same as ENVS 1027)

**GOV 1028 b. The Daughters of Mars: Women at War. Christian Potholm. Every Fall.
Fall 2019**

Introduces the student to the nature of warfare throughout various cultures and epochs by focusing on the “Daughters of Mars,” women warriors and warrior queens. Includes case studies from the Trojan war, the early Eurasian steppes, classical Greece and Rome, the High Middle Ages, nineteenth-century Africa, Samurai Japan, the American Civil War, World War II, Vietnam, Iraq, and Afghanistan. Also focuses on the arguments for and against having women in combat, culminating with the contemporary realities and debates concerning American women in combat today. Student research projects investigate these and other related subjects.

GOV 1030 b. The Pursuit of Peace. Allen Springer. Non-Standard Rotation. Fall 2019

Examines different strategies for preventing and controlling armed conflict in international society, and emphasizes the role of diplomacy, international law, and international organizations in the peace-making process.

GOV 1031 b. Weapons of the Weak. Barbara Elias. Non-Standard Rotation. Fall 2019

Despite enjoying a preponderance of resources, the rich and mighty don't always win in life, or in war. Why? How do peasants and insurgents impose their will on more powerful organizations? How do wealthy armies at times lose wars to impoverished rebels? Whereas money and material can be measured, divided and counted in a spreadsheet, less quantifiable factors of conflict such as ideas, identity, legitimacy, will power and fortitude are too often discounted as secondary factors. But these may, in truth, be at the heart of war, and weapons for the weak to bring down the mighty.

GOV 1100 b. Introduction to American Government. Michael Franz. Every Year. Fall 2019

Provides a comprehensive overview of the American political process. Specifically, traces the foundations of American government (the Constitution, federalism, civil rights, and civil liberties), its political institutions (Congress, presidency, courts, and bureaucracy), and its electoral processes (elections, voting, and political parties). Also examines other influences, such as public opinion and the mass media, which fall outside the traditional institutional boundaries, but have an increasingly large effect on political outcomes. Not open to students who have credit for or are concurrently taking Government 1001.

GOV 1600 b. Introduction to International Relations. Barbara Elias. Every Year. Fall 2019

Provides a broad introduction to the study of international relations (IR). Designed to strike a balance between empirical and historical knowledge and the obligatory theoretical understanding and schools of thought in IR. Designed as an introductory course to familiarize students with no prior background in the subject, and recommended for first- and second-year students intending to take upper-level international relations courses.

GOV 2005 b. The American Presidency. Andrew Rudalevige. Every Year. Fall 2019

An examination of the presidency in the American political system, including the “road to the White House” (party nomination process and role of the electoral college), advisory systems, the institutional presidency, relations with Congress and the courts, and decision-making in the White House. In addition, the instructors draw from their own research interests. For Professor Martin these include presidential-congressional relations, the unilateral action of the President, the role of women as advisors within the White House and in the executive branch, and the influence of outside groups on the White House’s consideration of issues. As part of their final class project, students will be expected to attend a film event--see comments for further information. For Professor Rudalevige these include presidents’ inter-branch relations, with a recent emphasis on presidential efforts to manage the wider executive branch through administrative and unilateral tactics.

GOV 2010 b. United States Congress. Janet Martin. Non-Standard Rotation. Fall 2019

An examination of the United States Congress, with a focus on members, leaders, constituent relations, the congressional role in the policy-making process, congressional procedures and their impact on policy outcomes, the budget process, and executive-congressional relations.

GOV 2020 b. Constitutional Law I. George Isaacson. Every Fall. Fall 2019

Examines the development of American constitutionalism, the power of judicial review, federalism, and separation of powers.

GOV 2030 b. Political Science and Policy History in the United States. Jeffrey Selinger. Non-Standard Rotation. Fall 2019

How have the institutions of government crafted by the American founders shaped the basic contours of the policy process? How has the policy process changed as the structure of the American political system itself has changed over time? Addresses these questions, introducing students to concepts and tools that political scientists use as they try to untangle complex patterns of policy development. Assigned readings trace the historical lineage of policies affecting health care, retirement, immigration, and other critical areas of public concern. Through analysis of these substantive policy matters, examines how and to what extent policy choices made in the past have shaped the horizon of options available to policymakers today.

GOV 2035 b. Maine Politics. Christian Potholm. Every Fall. Fall 2019

An analysis of politics in the state of Maine since World War II. Subjects covered include the dynamics of Republican and Democratic rivalries and the efficacy of the Independent voter, the rise of the Green and Reform parties, the growing importance of ballot measure initiatives, and the interaction of ethnicity and politics in the Pine Tree State. An analysis of key precincts and Maine voting paradigms is included, as well as a look at the efficacy of such phenomena as the north/south geographic split, the environmental movement, and the impact of such interest groups as SAM, the Tea Party, and the Roman Catholic Church. Students are expected to follow contemporary political events on a regular basis.

GOV 2052 b-ESD. Race, Ethnicity, and Politics. Chryl Laird. Non-Standard Rotation. Fall 2019

Examines the impact of race and ethnicity on American politics. Key topics include the development of group identity and the mobilization of political activism. Also covers voting rights and representation, as well as impacts on education and criminal justice. Groups addressed include Native Americans, black Americans, Latinos, Asian Americans, and white Americans. (Same as AFRS 2052)

GOV 2200 b. Classical Political Philosophy. Jean Yarbrough. Non-Standard Rotation. Fall 2019

A survey of classical political philosophy focusing on selected dialogues of Plato, the political writings of Aristotle, and St. Augustine's City of God. Examines ancient Greek and early Christian reflections on human nature, justice, the best regime, the relationship of the individual to the political community, the relationship of philosophy to politics, and the tension between reason and revelation.

GOV 2220 b. Liberalism and Its Critics. Michael Hawley. Non-Standard Rotation. Fall 2019

An examination of liberal democratic doctrine and of religious, cultural, and radical criticisms of it in the eighteenth and nineteenth centuries. Authors may include Locke, Kant, Burke, Tocqueville, Mill, Marx, and Nietzsche.

GOV 2400 b-IP. West European Politics. Laura Henry. Non-Standard Rotation. Fall 2019

Analyzes the dynamics of West European political systems, including the varieties of parliamentary and electoral systems and the formation of governments and lawmaking. Addresses contemporary political challenges in Britain, France, Germany, Italy, and other states, considering topics such as institutional reform, welfare state policies, economic growth and unemployment, immigration, relations with the United States, and other foreign policy concerns. The European Union is not examined, as it is a separate course, Government 2500: The Politics of the European Union.

GOV 2444 b-IP. Political and Economic Development in East Asia. Proxy Instructor Listed for Registration. Paul Franco. Non-Standard Rotation. Fall 2019

Provides an introduction to diversity and development in East Asia. The course first focuses on the rise and decline of a China and a Japan-centric order before WWII and discusses their historical impacts on today's domestic politics and international relations. The course then traces the postwar political economic developments. It examines the economic miracles in Asian countries, and discusses their democratization. It also presents the process of Chinese economic reform and its impacts on the regional order. The course finishes with the examination of the Asian financial crisis and its impacts on regional politics. (Same as ASNS 2920)

GOV 2450 b-ESD, IP. Japanese Politics and Society. Henry Laurence. Every Fall. Fall 2019

Comprehensive overview of modern Japanese politics in historical, social, and cultural context. Analyzes the electoral dominance of the Liberal Democratic Party, the nature of democratic politics, and the rise and fall of the economy. Other topics include the status of women and ethnic minorities, education, war guilt, nationalism, and the role of the media. (Same as ASNS 2320)

GOV 2530 b-IP. Politics and Societies in Africa. Ericka Albaugh. Non-Standard Rotation. Fall 2019

Surveys societies and politics in sub-Saharan Africa, seeking to understand the sources of current conditions and the prospects for political stability and economic growth. Looks briefly at pre-colonial society and colonial influence on state-construction in Africa, and concentrates on three broad phases in Africa's contemporary political development: (1) independence and consolidation of authoritarian rule; (2) economic decline and challenges to authoritarianism; (3) democratization and civil conflict. Presumes no prior knowledge of the region. (Same as AFRS 2530)

GOV 2570 b-IP. The Politics of Development: Poverty, Prosperity, and Political Change. Ericka Albaugh. Non-Standard Rotation. Fall 2019

Examines the meaning of development from economic and political perspectives. Considers various theories and practices of development that have been applied to newly independent states in Asia, Latin America, and Africa. Investigates why trajectories of economic growth and political stability have been so uneven in different regions of the world. Incorporates views from both external and internal actors on issues such as foreign aid, multilateral institutions, good governance, and democratic participation.

GOV 2600 b-IP. International Law. Allen Springer. Non-Standard Rotation. Fall 2019

The modern state system, the role of law in its operation, the principles and practices that have developed, and the problems involved in their application.

GOV 2694 b-IP. International Relations in East Asia. Proxy Instructor Listed for Registration. Paul Franco. Non-Standard Rotation. Fall 2019

Analyzes relations between the various states in East Asia, and between those states and countries outside the region, including the United States. The course addresses empirical and theoretical questions including: what are the threats to peace and prosperity in the region, and how are the different countries responding? What explains the foreign policy strategies of different countries including China and Japan, and how have they changed over time? How can broader theories of international relations inform, and be informed by, the nature of foreign policy choices in this region? Is East Asia headed toward greater cooperation or conflict? (Same as ASNS 2921)

GOV 2902 b-ESD. Talking to Farmers and Fishermen: Social Science Field Methods for Environmental Policy Research. Shana Starobin. Every Fall. Fall 2019

Natural resource users—like farmers and fishermen—possess intimate knowledge of the complex socioecological systems where they live and work. How can researchers appropriately and ethically engage individual and community stakeholders as participants in environmental research? Through assignments, activities, and class excursions (lab), students will gain competence in collaborative field research skills, including the ethical conduct of research with human subjects, participant observation, conducting interviews and focus groups, writing up field notes, developing metadata, and establishing protocols for data management. Students will also practice preliminary data analysis—transcription and text analysis of field collected data, descriptive statistics, and identification of future research questions. (Same as ENVS 2314)

PREREQUISITE: ENVS 2330 (same as GOV 2910) or ENVS 2313 (same as GOV 2482 and LAS 2513)

GOV 2910 b-IP. Environmental Policy and Politics. Shana Starobin. Eileen Sylvan Johnson. Every Fall. Fall 2019

Explores the political, economic, legal, ethical, and institutional dimensions of the environmental policy-making process. Examines the formation and implementation of regulatory institutions and policies across a range of issues in the U.S. and internationally—including terrestrial, coastal and marine natural resources management, biodiversity, water and air pollution, sustainable development, and environmental justice. Prepares students to analyze historical cases as well as contrive and evaluate competing policy alternatives to emerging problems. (Same as ENVS 2330)

PREREQUISITE: ENVS 1101

GOV 2915 b. Environmental Law and Policy. Conrad Schneider. Every Other Fall. Fall 2019

Critical examination of some of the most important American environmental laws and their application to environmental problems that affect the United States and the world. Students learn what the law currently requires and how it is administered by federal and state agencies, and are encouraged to examine the effectiveness of current law and consider alternative approaches. (Same as ENVS 2304)

GOV 3020 b. Money and Politics. Michael Franz. Non-Standard Rotation. Fall 2019

Considers the historical and contemporary relationship between money and government. In what ways have moneyed interests always had distinctive influences on American politics? Does this threaten the vibrancy of our representative democracy? Are recent controversies over campaign finance reform and lobbying reform signs that American government is in trouble? Reading, writing, and discussion intensive, considers the large academic literature on this subject, as well as the reflections of journalists and political practitioners, with the overall goal of understanding the money/politics relationship in ways that facilitate the evaluation of American democracy.

History

HIST 1001 c. Bad Girls of the 1950s. Jennifer Scanlon. Non-Standard Rotation. Fall 2019

Explores the representation and life experiences of women who did not fit the cultural norm of suburban motherhood in 1950s America. Focuses on issues of class, race, sexuality, and gender in a decade shaped by fears about nuclear war and communism, and by social and political conformity. Topics include teenage pregnancy, women's grassroots political leadership, single womanhood, civil rights, emergent feminism, and, finally, the enduring cultural resonance of the apron-clad 1950s mom. Engages a variety of primary and secondary sources. Note: This course is part of the following field(s) of study: United States. (Same as GSWS 1021)

HIST 1022 c. Science on Trial. David Hecht. Non-Standard Rotation. Fall 2019

Examines moments of scientific controversy in modern United States history. From teaching evolution to legalizing abortion to accepting climate change, science has been at the center of some of our most persistent political debates. But science is neither as objective nor as detached from society as we commonly assume; it is inextricably bound to cultural, social, and even moral norms. This course uses moments of legal and political tension to explore the complexities of how scientific knowledge is produced, disseminated, and accepted (or rejected). Case studies include the Scopes Trial, the eugenics-era decision in *Buck v. Bell*, lawsuits against the tobacco industry, and *Roe v. Wade* -- as well as the making of environmental policy on questions of pesticide use and radiation exposure. Course writing gives students the opportunity to engage with a range of historical sources in science, law, policy and media. Note: This course is part of the following field(s) of study: US.

HIST 1024 c. Serious Games: Critical Play for History. Patrick Rael. Non-Standard Rotation. Fall 2019

Did you know that Monopoly began life a game that criticized modern capitalism? Have you ever wondered what sense it makes that in Sid Meier's *Civilization*, Abraham Lincoln can found the American tribe in 4,000 BCE? This course explores how commercial video and board games can help us understand the past. In return, understanding something about how the discipline of history works will help us think about games as representations of the past. Games to be studied and played may include: *Catan*, *Diplomacy*, *Monopoly*, *Sid Meier's Civilization V*, *Spirit Island*, and *Twilight Struggle*. Students should expect to complete four structured writing assignments and several shorter writing assignments. The course includes a weekly evening game lab. Note: This course is part of the following field(s) of study: US. (Same as DCS 1024)

HIST 1026 c. Revolutions in the Twentieth Century. Salar Mohandesi. Every Other Fall. Fall 2019

The twentieth century was the great age of revolt. Dramatic social, political, and economic changes sparked revolutions across the globe. Examines revolution as a historical process, political event, and theoretical concept, exploring such questions as: why revolutions started; who participated; what participants wanted; and if these revolutions succeeded. To address these questions, investigates some of the major revolutions of the last century. Cases may include the Bolshevik Revolution, the Spanish Civil War, the Algerian War of Independence, the Great Proletarian Cultural Revolution in China, and the Islamic Revolution in Iran. Concludes by reflecting on the utility of “revolution” as a category of historical analysis. Note: This course is part of the following field(s) of study: Europe.

HIST 1046 c. 'Deviant' Lives in Latin America. Javier Cikota. Non-Standard Rotation. Fall 2019

Explores the lives of particular Latin American people who found themselves being “boxed in,” and the ways in which they have sought to remain outside, or even in-between, categories. We will consider issues of personal identity, social belonging, and state power through the lives and stories—some well-known, and some surprisingly obscure—of Latin Americans, from the 1500s to the present. Course writing gives students the opportunity to engage with primary sources, perform independent research, and explore how personal identities have been created, maintained, and challenged over the centuries. Note: This course is part of the following field(s) of study: Latin America. It fulfills the non Euro/US requirement for History majors and minors. (Same as LAS 1046)

HIST 1111 c-ESD, IP. History of Ancient Greece: From Homer to Alexander the Great. Robert Sobak. Non-Standard Rotation. Fall 2019

Surveys the history of Greek-speaking peoples from the Bronze Age (ca. 3000-1100 B.C.E) to the death of Alexander the Great in 323 B.C.E. Traces the political, economic, social, religious, and cultural developments of the Greeks in the broader context of the Mediterranean world. Topics include the institution of the polis (city-state); hoplite warfare; Greek colonization; the origins of Greek science; philosophy and rhetoric; and fifth-century Athenian democracy and imperialism. Necessarily focuses on Athens and Sparta, but attention is also given to the variety of social and political structures found in different Greek communities. Special attention is given to examining and attempting to understand the distinctively Greek outlook in regard to gender, the relationship between human and divine, freedom, and the divisions between Greeks and barbarians (non-Greeks). A variety of sources -- literary, epigraphical, archaeological -- are presented, and students learn how to use them as historical documents. Note: This course is part of the following field(s) of study: Europe. It fulfills the pre-modern requirement for history majors and minors. (Same as CLAS 1111)

HIST 1240 c-ESD, IP. War and Society. Patrick Rael. Every Other Year. Fall 2019

Explores the nature of warfare from the fifteenth century to the present. The central premise is that war is a reflection of the societies and cultures that wage it. This notion is tested by examining the development of war-making in Europe and the Americas from the period before the emergence of modern states, through the great period of state formation and nation building, to the present era, when the power of states to wage war in the traditional manner seems seriously undermined. Throughout, emphasis is placed on contact between European and non-European peoples. Students are required to view films every week outside of class. Note: This course is part of the following field(s) of study: Europe; United States.

HIST 1440 c-IP. Merchants, Mughals, Mendicants: India and the Early Modern World. Rachel Sturman. Non-Standard Rotation. Fall 2019

Introductory exploration of the history of the Indian subcontinent and its connections to the broader world in an era shaped by the vibrant movement of people, goods, and ideas across the Indian Ocean, Europe, and Central Asia. Note: This course is part of the following field(s) of study: South Asia. It also fulfills the non Euro/US and pre-modern requirements for history majors and minors. (Same as ASNS 1560)

HIST 2020 c-IP. Revolution and Development in the Global Cold War. Salar Mohandesi. Every Other Fall. Fall 2019

The Cold War was not simply a rivalry between two superpowers, but a fully global competition between different models of social, political, and economic development. After reviewing the consolidation of fascism, welfare capitalism, and Stalinism in the 1930s, we study how the precarious alliance between American capitalism and Soviet communism devolved into open conflict after WWII. Since this competition unfolded on a planetary level, with each side struggling to convince the world that its model was superior, this course takes a global approach, surveying such events as the division of Europe, decolonization in Asia and Africa, the wars in Korea and Afghanistan, the Cuban and Iranian revolutions, the civil war in Angola, the rise of Reagan and Gorbachev, and the collapse of the Soviet Bloc. In so doing, this course explores such themes as imperialism, revolution, modernization, democratization, nation-building, internationalism, non-alignment, human rights, and neoliberalism.

HIST 2040 c. Science, Magic, and Religion. Dallas Denery. Every Other Year. Fall 2019

Traces the origins of the scientific revolution through the interplay between late-antique and medieval religion, magic, and natural philosophy. Particular attention is paid to the conflict between paganism and Christianity, the meaning and function of religious miracles, the rise and persecution of witchcraft, and Renaissance hermeticism. Note: This course fulfills the pre-modern requirement for history majors. Note: This course is part of the following field(s) of study: Europe. It also meets the pre-modern requirement for history majors and minors.. (Same as REL 2204)

HIST 2109 c-ESD, IP. Russia's Twentieth Century: Revolution and Beyond. Page Herrlinger. Every Other Fall. Fall 2019

Examines major transformations in Russian society, culture, and politics from the Revolutions of 1917 through the fall of the Soviet Empire in 1991. Topics include the building of socialist society under Lenin and Stalin, the political Terror of the 1930s and the expansion of the Gulag system, the experience of World War II, Soviet influence in Central Asia and Eastern Europe, attempts at de-Stalinization under Khrushchev, everyday life under “developed socialism,” the period of “glasnost” and “perestroika” under Gorbachev, and the problems of de-Sovietization in the early 1990s. Note: This course is part of the following field(s) of study: Europe.

HIST 2129 c. History of Harpswell and the Coast of Maine. Sarah McMahon. Amy Johnson. Olaf Ellers. Non-Standard Rotation. Fall 2019

Examines the long history of Harpswell as part of the coast of Maine, and the research methodologies used to uncover and analyze that history from environmental, community, socioeconomic, political, racial and ethnic, and cultural perspectives. Topics include bonds and tensions in a peninsula and islands community; coastal agriculture and stone walls; inshore and deep-sea fisheries; shipbuilding and shipping; the Civil War; ethnic, religious, and cultural diversity; poverty and living on the margin; and the rise of tourism. Culminates with an individual research project prospectus for a projected essay on an aspect of that history. Taught in residence at the Schiller Coastal Studies Center. History 2129/Environmental Studies 2449 is a course-module in the Bowdoin Marine Science Semester. Harpswell and Maine Coast History is a course-module in the Bowdoin Marine Science Semester and is taught with three other co-requisite courses. Note: This course is a part of the following field(s) of study: United States. (Same as ENV5 2449)

HIST 2292 c. Modern Middle Eastern History. Idriss Jebari. Non-Standard Rotation. Fall 2019

Offers a chronological and thematic overview of the modern history of the Middle East and North Africa. Covers the period from the dismantling of the Ottoman Empire after World War I to the 2011 Arab uprisings. Studies the formation of the modern state system and the historical roots and developments of long-standing conflicts including the Arab and Israeli wars, the emergence of ideological radicalism, and the political riots and revolutions that have shaken the region. Seeks to examine the region's history beyond “War and Peace” by considering essential social and cultural transformations associated with the formation and fragmentation of nation-states in this region, including the role of colonial legacies, resources and economic distribution, social modernization, conflicting cultures, and sectarian strife, among others. Makes use of secondary literature and a variety of primary sources in English translation. Note: This course fulfills the non Euro/US requirement for History majors and minors.

HIST 2320 c-IP. The Emergence of Chinese Civilization. Ya Zuo. Non-Standard Rotation. Fall 2019

Introduction to ancient Chinese history (2000 B.C.E. to 800 C.E.). Explores the origins and foundations of Chinese civilization. Prominent themes include the inception of the imperial system, the intellectual florescence in classical China, the introduction and assimilation of Buddhism, the development of Chinese cosmology, and the interactions between early China and neighboring regions. Class discussion of historical writings complemented with literary works and selected pieces of the visual arts. Note: This course fulfills the pre-modern requirement for history majors. (Same as ASNS 2010)

HIST 2365 c-IP. The Rise of Swahili Civilization. David Gordon. Non-Standard Rotation. Fall 2019

Considers the millennium-old interactions between peoples of Africa, the Middle East, and South Asia that created Swahili civilizations stretching from Mogadishu to Madagascar. Themes include the rise of dhow-based maritime trade; the spread of Islam; the slave trade and slavery; Omani, Portuguese, British, Italian, and German colonialisms; late colonial conflicts including the Mau Mau rebellion in Kenya and the revolution in Zanzibari. Ends with the rise of the post-colonial states of Tanzania, Kenya, Mozambique, Madagascar, and Somalia, and rebel insurgencies such as Somali pirates and Islamic fundamentalism. Note: This course is part of the following field(s) of study: Africa. This course meets the non-European/US and pre-modern requirements for the History Major. (Same as AFRS 2365)

HIST 2403 c-ESD, IP. Revolutions in Latin America: The People Take the Stage. Javier Cikota. Non-Standard Rotation. Fall 2019

Examines revolutionary change in Latin America from a historical perspective, concentrating on four successful social revolutions-- Haiti, Mexico, Cuba, and Bolivia-- as well as several revolutionary movements that did not result in social change-- including Argentina, Guatemala, Chile, Nicaragua, and Venezuela. Popular images and orthodox interpretations are challenged and new propositions about these processes are tested. External and internal dimensions of each of these social movements are analyzed and each revolution is discussed in the full context of the country's historical development. This course fulfills the non-Euro/US requirement This course is part of the following field(s) of study: Latin America. (Same as LAS 2403)

HIST 2527 c. Medieval and Reformation Intellectual History. Dallas Denery. Every Other Fall. Fall 2019

Seminar. Examines important works in their intellectual and cultural context from the Middle Ages to Reformation, a period beginning with Augustine (354-430) and ending with the Council of Trent (1563). Potential topics include the relation between religion and philosophy, God and nature, and conceptions of the self. Potential readings include works by Augustine, Hildegard of Bingen, Thomas Aquinas, William Ockham, Christine de Pizan, Martin Luther, and John Calvin. Note: This course fulfills the pre-modern requirement for history majors and minors.

HIST 2580 c-ESD, IP. The German Experience, 1918-1945. Page Herrlinger. Every Other Year. Fall 2019

Seminar. An in-depth inquiry into the troubled course of German history during the Weimar and Nazi periods. Among the topics explored are the impact of the Great War on culture and society in the 1920s; the rise of National Socialism; the role of race, class, and gender in the transformation of everyday life under Hitler; forms of persecution, collaboration, and resistance during the third Reich; Nazi war aims and the experience of war on the front and at “home,” including the Holocaust. Note: This course is part of the following field(s) of study: Europe.

HIST 2780 c-ESD, IP. The Foundations of Chinese Thought. Ya Zuo. Non-Standard Rotation. Fall 2019

Seminar. Addresses Chinese thought from the time of Confucius, ca. sixth century B.C.E., up to the beginning of the Common Era. The first half of the time period nurtured many renowned thinkers who devoted themselves to the task of defining and disseminating ideas. The latter half witnessed the canonization of a number of significant traditions, including Confucianism. Major problems that preoccupied the thinkers include order and chaos, human nature, the relationship between man and nature, among others. Students instructed to treat philosophical ideas as historically conditioned constructs and to interrogate them in contexts. Note: This course is part of the following field(s) of study: East Asia. It fulfills the pre-modern and non Euro/US requirements for history majors and minors. (Same as ASNS 2002)

HIST 2803 c-ESD, IP. A History of Human Rights. Rachel Sturman. Non-Standard Rotation. Fall 2019

Seminar. Traces the emergence of ideas of universal humanity and human rights, as these took shape in the context of European imperial expansion from the sixteenth through the twentieth centuries. Uses case studies of Europeans and their interlocutors in Latin America, Asia, and Africa to explore the seeming contradiction and actual historical connections between empire and appeals to humanity, as well as to consider the operation of transnational institutions like the United Nations since the mid-twentieth century. Students will engage in original research on a topic of their choice. This course is part of the following field(s) of study: Colonial Worlds. It fulfills the non Euro/US requirement for History majors and minors. This course emphasizes the skills and approaches to writing in History

HIST 2823 c-IP. Sacred Icons and Museum Pieces: The Powers of Central African Art. David Gordon. Non-Standard Rotation. Fall 2019

Seminar. The art of Central Africa inspired European avant-garde artists from Pablo Picasso to Paul Klee. This course explores art as a historical source. What does the production, use, commerce, and display of art reveal about politics, ideology, religion, and aesthetics? Prior to European colonialism, what was the relationship between art and politics in Central Africa? How did art represent power? What does it reveal about gender relations, social divisions, and cultural ideals? The course then turns to the Euro-American scramble for Central African art at the onset of European colonialism. How did the collection of art, its celebration by European artists, and display in European and American museums transform patterns of production, cultural functions and aesthetic styles of Central African art? The course ends with current debates over the repatriation of African art. Note: This course is part of the following field(s) of study: Africa. This course meets the non-European/ US History requirements. (Same as AFRS 2823, ARTH 2390)

HIST 2885 c-IP. Arab Thought: Ideas, Intellectuals, and Ideologies. Idriss Jebari. Non-Standard Rotation. Fall 2019

Seminar. Introduces students to the ideas and intellectual projects of significant Arab thinkers, from the 19th century to the Arab Spring in 2011. This course will identify and discuss how they have addressed the Arabs' concern for modernity and identity in the context of social, political and cultural transformation in the region. The course will cover several stages of Arab intellectual history starting with the liberal age, socialist and nationalist ideologies, pan-Arabism, third-world revolutionary ideologies, Islamic revival, and calls for democratization and human rights. It will also continuously ask about the conditions of thinkers, writers and dissidents in the Arab region, especially the impact of authoritarian regimes and the dangers posed by the rise of militant Islamism. This seminar will rely on a direct interaction with the primary texts. No prior knowledge Arab history is required, and all sources will be provided in translation. Note: This course fulfills the non Euro/US requirement for history majors and minors.

HIST 3122 c. Community in America, Maine, and at Bowdoin. Sarah McMahan. Every Other Fall. Fall 2019

A research seminar that explores ideals and social, economic, political, and cultural realities of community in American history, and examines continuity, change, and socio-economic, racial, and ethnic diversity in community experience. Begins with studies of communities in seventeenth-century Massachusetts and early national upstate New York; then focuses on Maine and on Bowdoin College and its midcoast neighborhood, with readings in both the secondary literature and a wealth of primary sources. Note: This course is part of the following field(s) of study: United States.

Latin American Studies

LAS 1046 c. 'Deviant' Lives in Latin America. Javier Cikota. Non-Standard Rotation. Fall 2019

Explores the lives of particular Latin American people who found themselves being "boxed in," and the ways in which they have sought to remain outside, or even in-between, categories. We will consider issues of personal identity, social belonging, and state power through the lives and stories—some well-known, and some surprisingly obscure—of Latin Americans, from the 1500s to the present. Course writing gives students the opportunity to engage with primary sources, perform independent research, and explore how personal identities have been created, maintained, and challenged over the centuries. Note: This course is part of the following field(s) of study: Latin America. It fulfills the non Euro/US requirement for History majors and minors. (Same as HIST 1046)

LAS 1271 c-IP, VPA. Experiencing Latin American Music. Proxy Instructor Listed for Registration. Vineet Shende. Every Other Fall. Fall 2019

An opportunity to experience Latin American history, heritage, and culture through its music. Students will explore general issues of race, identity, religion, and politics from a broad chronological span—from the 16th to the 21st century—and will relate these to Latin American musics. The course will cover a wide variety of music genres and contexts (e.g. opera, film music, bachata, son jarocho, sacred polyphony, salsa, chamber music and more) and will introduce general elements of music, such as pitch, melody, rhythm, texture, musical time, and form. (Same as MUS 1271)

LAS 1300 c-IP, VPA. Introduction to the Arts of Ancient Mexico and Peru. Susan Wegner. Non-Standard Rotation. Fall 2019

A chronological survey of the arts created by major cultures of ancient Mexico and Peru. Mesoamerican cultures studied include the Olmec, Teotihuacan, the Maya, and the Aztec up through the arrival of the Europeans. South American cultures such as Chavín, Nasca, and Inca are examined. Painting, sculpture, and architecture are considered in the context of religion and society. Readings in translation include Mayan myth and chronicles of the conquest. (Same as ARTH 1300)

LAS 2205 c. Advanced Spanish. The Department. Every Semester. Fall 2019

The study of topics in the political and cultural history of the Spanish-speaking world in the twentieth century, together with an advanced grammar review. Covers a variety of texts and media and is designed to increase written and oral proficiency, as well as appreciation of the intellectual and artistic traditions of Spain and Latin America. Foundational course for the major. Three class hours per week and one weekly conversation session with assistant. (Same as HISP 2305)

PREREQUISITE: SPAN 2204 or HISP 2204 or Placement in HISP 2305

LAS 2209 c-ESD, IP. Spoken Word and Written Text. Charlotte Daniels. Every Semester. Fall 2019

Examines oral and written traditions of areas where French is spoken in Africa, the Caribbean, Europe, and North America from the Middle Ages to 1848. Through interdisciplinary units, students examine key moments in the history of the francophone world, drawing on folktales, epics, poetry, plays, short stories, essays, and novels. Explores questions of identity, race, colonization, and language in historical and ideological context. Taught in French. (Same as AFRS 2409, FRS 2409)

PREREQUISITE: FREN 2305 or higher or FRS 2305 or higher or Placement in FRS 2400 level

LAS 2210 c-ESD, IP. Literature, Power, and Resistance. Meryem Belkaid. Charlotte Daniels. Every Semester. Fall 2019

Examines questions of power and resistance as addressed in the literary production of the French-speaking world from the nineteenth through the twenty-first centuries. Examines how language and literature serve as tools for both oppression and liberation during periods of turmoil: political and social revolutions, colonization and decolonization, the first and second world wars. Authors may include Hugo, Sand, Sartre, Fanon, Senghor, Yacine, Beauvoir, Condé, Césaire, Djébar, Camus, Modiano, Percec, and Piketty. Students gain familiarity with a range of genres and artistic movements and explore the myriad ways that literature and language reinforce boundaries and register dissent. Taught in French. (Same as AFRS 2412, FRS 2410)

PREREQUISITE: FREN 2305 or higher or FRS 2305 or higher or Placement in FRS 2400 level

LAS 2403 c-ESD, IP. Revolutions in Latin America: The People Take the Stage. Javier Cikota. Non-Standard Rotation. Fall 2019

Examines revolutionary change in Latin America from a historical perspective, concentrating on four successful social revolutions-- Haiti, Mexico, Cuba, and Bolivia-- as well as several revolutionary movements that did not result in social change-- including Argentina, Guatemala, Chile, Nicaragua, and Venezuela. Popular images and orthodox interpretations are challenged and new propositions about these processes are tested. External and internal dimensions of each of these social movements are analyzed and each revolution is discussed in the full context of the country's historical development. This course fulfills the non-Euro/US requirement This course is part of the following field(s) of study: Latin America. (Same as HIST 2403)

LAS 2409 c-IP. Introduction to Hispanic Studies: Poetry and Theater. Gustavo Faveron Patriau. Every Semester. Fall 2019

A chronological introduction to the cultural production of the Spanish-speaking world from pre-Columbian times to the present, with particular emphasis on the analysis of poetry and theater. Examines major literary works and movements in their historical and cultural context. Conducted in Spanish. (Same as HISP 2409)

PREREQUISITE: HISP 2305 (same as LAS 2205) or SPAN 2305 (same as LAS 2205) or LAS 2205 or Placement in HISP 2409 or 2410

LAS 2410 c-IP. Introduction to Hispanic Studies: Essay and Narrative. The Department. Every Semester. Fall 2019

A chronological introduction to the cultural production of the Spanish-speaking world from pre-Columbian times to the present, with particular emphasis on the analysis of essay and narrative. Examines major literary works and movements in their historical and cultural context. (Same as HISP 2410)

PREREQUISITE: HISP 2305 (same as LAS 2205) or SPAN 2305 (same as LAS 2205) or LAS 2205 or Placement in HISP 2409 or 2410

LAS 2737 b-ESD, IP. Family, Gender, and Sexuality in Latin America. Krista Van Vleet. Non-Standard Rotation. Fall 2019

Focuses on family, gender, and sexuality as windows onto political, economic, social, and cultural issues in Latin America. Topics include indigenous and natural gender ideologies, marriage, race, and class; machismo and masculinity; state and domestic violence; religion and reproductive control; compulsory heterosexuality; AIDS; and cross-cultural conceptions of homosexuality. Takes a comparative perspective and draws on a wide array of sources including ethnography, film, fiction, and historical narrative. (Same as ANTH 2737, GSWS 2237)

PREREQUISITE: ANTH 1101 or SOC 1101

LAS 3213 c. Aesthetics in Africa and Europe. Hanetha Vete-Congolo. Non-Standard Rotation. Fall 2019

Aesthetics -- the critical reflection on art, taste, and culture; as much as beauty, the set of properties of an object that arouses pleasure--are central to all aspects of society-building and human life and relationships. Examines the notions of aesthetics and beauty, from pre-Colonial to contemporary times in cultures of the African and Western civilizations as expressed in various humanities and social sciences texts, as well as the arts, iconography, and the media. Considers the ways Africans and afro-descendants in the New World responded to the Western notions of aesthetics and beauty. Authors studied may include Anténor Firmin, Jean Price Mars, Senghor, Damas, Césaire, Cheick Anta Diop, Fanon, Glissant, Chamoiseau, Gyekye Kwame, Socrates, Plato, Jean-Baptiste du Bos, Diderot, Le père André, Baumgarten, Kant, Schopenhauer, Hegel, Hugo. (Same as AFRS 3213, FRS 3213)

PREREQUISITE: Two of: | either FRS 2409 (same as AFRS 2409 and LAS 2209) or FRS 2410 (same as AFRS 2412 and LAS 2210) or FRS 3000 or higher | and either FRS 2409 (same as AFRS 2409 and LAS 2209) or FRS 2410 (same as AFRS 2412 and LAS 2210) or FRS 3000 or higher

LAS 3218 c. A Journey around Macondo: Garcia Marquez and His Contemporaries. Nadia Celis. Non-Standard Rotation. Fall 2019

Studies the main topics, techniques, and contributions of Colombian Nobel Prize winner Gabriel García Márquez as presented in "One Hundred Years of Solitude." Explores the actual locations and the social, cultural, and literary trends that inspired the creation of Macondo, the so-called village of the world where the novel takes place, and the universal themes to which this imaginary town relates. Contemporary authors include Fuenmayor, Rojas Herazo, and Cepeda Samudio. (Same as HISP 3218)

PREREQUISITE: Two of: | either SPAN 2409 (same as LAS 2409) or SPAN 3200 or higher or SPAN 2410 (same as LAS 2410) or either HISP 2409 (same as LAS 2409) or HISP 2410 (same as LAS 2410) or HISP 3200 or higher | and either SPAN 2409 (same as LAS 2409) or SPAN 3200 or higher or SPAN 2410 (same as LAS 2410) or either HISP 2409 (same as LAS 2409) or HISP 2410 (same as LAS 2410) or HISP 3200 or higher

LAS 3223 c. The War of the (Latin American) Worlds. Carolyn Wolfenzon Niego. Non-Standard Rotation. Fall 2019

Discusses the historical, social, and political consequences of the clash between tradition and modernity in Latin America during the nineteenth and twentieth centuries as seen through novels, short stories, and film. Particular attention will be given to the ways in which the processes of modernization have caused the coexistence of divergent worlds within Latin American countries. Analyzes different social and political reactions to these conflictive realities, focusing on four cases: the Mexican Revolution, the Cuban Revolution, the dictatorship of Augusto Pinochet in Chile, and Andean insurgencies in Perú. Authors to be read may include Reinaldo Arenas, Roberto Bolaño, Simón Bolívar, Jorge Luis Borges, Cromwell Jara, Mario Vargas Llosa, Gabriel García Márquez, José Martí, Elena Poniatowska, and Juan Rulfo, among others. (Same as HISP 3223)

PREREQUISITE: Two of: || either SPAN 2409 (same as LAS 2409) or SPAN 3200 or higher or SPAN 2410 (same as LAS 2410) or either HISP 2409 (same as LAS 2409) or HISP 2410 (same as LAS 2410) or HISP 3200 or higher || and either SPAN 2409 (same as LAS 2409) or SPAN 3200 or higher or SPAN 2410 (same as LAS 2410) or either HISP 2409 (same as LAS 2409) or HISP 2410 (same as LAS 2410) or HISP 3200 or higher

LAS 3237 c. Hispanic Short Story. Gustavo Faveron Patriau. Non-Standard Rotation. Fall 2019

An investigation of the short story as a literary genre, beginning in the nineteenth century, involving discussion of its aesthetics, as well as its political, social, and cultural ramifications in the Spanish-speaking world. Authors include Pardo Bazán, Borges, Cortázar, Echevarría, Ferré, García Márquez, and others. (Same as HISP 3237)

PREREQUISITE: Two of: || either SPAN 2409 (same as LAS 2409) or SPAN 3200 or higher or SPAN 2410 (same as LAS 2410) or either HISP 2409 (same as LAS 2409) or HISP 2410 (same as LAS 2410) or HISP 3200 or higher || and either SPAN 2409 (same as LAS 2409) or SPAN 3200 or higher or SPAN 2410 (same as LAS 2410) or either HISP 2409 (same as LAS 2409) or HISP 2410 (same as LAS 2410) or HISP 3200 or higher

LAS 3712 b-ESD. Migrant Imaginaries. Marcos Lopez. Non-Standard Rotation. Fall 2019

Examines how immigrants view and transform the world around them in the United States. While normative approaches to the study of immigration constructs migrants as objects of inquiry, this course instead will draw primarily on migrant perspectives and experiences in the diaspora that originate from Latin America, Asia and Africa. (Same as SOC 3410)

PREREQUISITE: Two of: || SOC 1101 || and SOC 2000 - 2969

LAS 3900 c-IP, VPA. Women, Performance, and Activism in the Americas. Irina Popescu. Non-Standard Rotation. Fall 2019

Explores how women organize collectively to challenge political, economic, and social injustice in the late twentieth century across the Americas. In our investigation, we will turn to the intersection between art and activism as we look at a wide range of artistic practices, from literature and film to site-specific performance art and interventionist art. Throughout the semester, we will revisit the following questions as we consider the development of female activism in the Americas: (1) what is the relationship between feminism and activism, (2) can literature and performance be placed at the service of activism, (3) how does looking at the Americas as a whole enable us to better understand the shared injustices across the North/South divide? (Same as GSWS 3900)

Mathematics

MATH 1040 a. Educated Guessing. James Broda. Every Fall. Fall 2019

A writing-intensive course that explores the many ways in which randomness affects everyday life. Introduces historical and computational aspects of mathematical logic, probability, and statistics. Addresses decision-making strategies as well as sources of flawed reasoning, including cognitive biases and logical fallacies. Topics include: games of chance, weather phenomena, financial markets, legal proceedings, and medical diagnostics. Students engage in all facets of the writing process: from invention, library research, drafting, and revision to final editing.

MATH 1050 a-MCSR. Quantitative Reasoning. Eric Gaze. Every Semester. Fall 2019

Explores the ways and means by which we communicate with numbers; the everyday math we encounter on a regular basis. The fundamental quantitative skill set is covered in depth providing a firm foundation for further coursework in mathematics and the sciences. Topics include ratios, rates, percentages, units, descriptive statistics, linear and exponential modeling, correlation, logic, and probability. A project-based course using Microsoft Excel, emphasizing conceptual understanding and application. Reading of current newspaper articles and exercises involving personal finance are incorporated to place the mathematics in real-world context.

PREREQUISITE: Placement in MATH 1050 or 1051 (S/M) or Placement in MATH 1050 (S/M)

MATH 1051 a-MCSR. Quantitative Reasoning: Mathematics for Sustainability. James Broda. Every Semester. Fall 2019

Provides students with a comprehensive overview of the quantitative skills required to cope with the practical demands of daily life. Explores the connection between mathematics and real-world problems through the study of topics related to sustainability in a variety of social, economic, and ecological systems. Develops the ability to recognize, define, and solve problems within a quantitative framework and provides a foundation for further coursework in mathematics and the sciences. Topics include: rates, units, system diagrams, networks, logistic and exponential models, descriptive statistics, random processes, and elementary game theory.

PREREQUISITE: Placement in MATH 1050 or 1051 (S/M) or Placement in MATH 1050 (S/M)

MATH 1300 a-MCSR. Biostatistics. Behrang Forghani. Every Semester. Fall 2019

An introduction to the statistical methods used in the life sciences. Emphasizes conceptual understanding and includes topics from exploratory data analysis, the planning and design of experiments, probability, and statistical inference. One and two sample t-procedures and their non-parametric analogs, one-way ANOVA, simple linear regression, goodness of fit tests, and the chi-square test for independence are discussed. An average of four to five hours of class meetings and computer laboratory sessions per week. Not open to students who have credit for Economics 2557, Psychology 2520, or Mathematics 1200 or have credit or are concurrently enrolled in Mathematics 1400.

PREREQUISITE: MATH 1050 or Placement in MATH 1300 (S) or Placement in MATH 1300 or 1400 (S) or Placement in MATH 1300 or 2206(S) or MATH 1051

MATH 1600 a-MCSR. Differential Calculus. Mary Lou Zeeman. William Barker. Every Semester. Fall 2019

Functions, including the trigonometric, exponential, and logarithmic functions; the derivative and the rules for differentiation; the anti-derivative; applications of the derivative and the anti-derivative. Four to five hours of class meetings and computer laboratory sessions per week, on average. Open to students who have taken at least three years of mathematics in secondary school.

PREREQUISITE: MATH 1050 or Placement in MATH 1600 (M) or PHYS 1093 (same as CHEM 1093) or MATH 1051

MATH 1700 a-MCSR. Integral Calculus. The Department. Every Semester. Fall 2019

The definite integral; the Fundamental theorems; improper integrals; applications of the definite integral; differential equations; and approximations including Taylor polynomials and Fourier series. An average of four to five hours of class meetings and computer laboratory sessions per week.

PREREQUISITE: MATH 1600 or Placement in MATH 1700 (M)

MATH 1750 a-MCSR. Integral Calculus, Advanced Section. The Department. Every Semester. Fall 2019

A review of the exponential and logarithmic functions, techniques of integration, and numerical integration. Improper integrals. Approximations using Taylor polynomials and infinite series. Emphasis on differential equation models and their solutions. An average of four to five hours of class meetings and computer laboratory sessions per week. Open to students whose backgrounds include the equivalent of Mathematics 1600 and the first half of Mathematics 1700. Designed for first-year students who have completed an AB Advanced Placement calculus course in their secondary schools.

PREREQUISITE: Placement in MATH 1750 (M)

MATH 1800 a-MCSR. Multivariate Calculus. The Department. Every Semester. Fall 2019

Multivariate calculus in two and three dimensions. Vectors and curves in two and three dimensions; partial and directional derivatives; the gradient; the chain rule in higher dimensions; double and triple integration; polar, cylindrical, and spherical coordinates; line integration; conservative vector fields; and Green's theorem. An average of four to five hours of class meetings and computer laboratory sessions per week.

PREREQUISITE: MATH 1700 or MATH 1750 or Placement in MATH 1800 (M)

MATH 1808 a-MCSR. Biomathematics. Mary Lou Zeeman. William Barker. Every Fall. Fall 2019

A study of mathematical modeling in biology, with a focus on translating back and forth between biological questions and their mathematical representation. Biological questions are drawn from a broad range of topics, including disease, ecology, genetics, population dynamics, and neurobiology. Mathematical methods include discrete and continuous (ODE) models and simulation, box models, linearization, stability analysis, attractors, oscillations, limiting behavior, feedback, and multiple time-scales. Within the biology major, this course may count as the mathematics credit or as biology credit, but not both. Students are expected to have taken a year of high school or college biology prior to this course. (Same as BIOL 1174)

PREREQUISITE: MATH 1600 or higher or Placement in MATH 1700 (M) or Placement in MATH 1750 (M) or Placement in MATH 1800 (M) or Placement in 2000, 2020, 2206 (M)

MATH 2000 a-MCSR. Linear Algebra. The Department. Every Semester. Fall 2019

A study of linear algebra in the context of Euclidean spaces and their subspaces, with selected examples drawn from more general vector spaces. Topics will include: vectors, linear independence and span, linear transformations, matrices and their inverses, bases, dimension and rank, determinants, eigenvalues and eigenvectors, diagonalization and change of basis, and orthogonality. Applications drawn from linear systems of equations, discrete dynamical systems, Markov chains, computer graphics, and least-squares approximation.

PREREQUISITE: MATH 1800 or Placement in 2000, 2020, 2206 (M)

MATH 2020 a-MCSR. Introduction to Mathematical Reasoning. Jennifer Taback. William Barker. Every Semester. Fall 2019

An introduction to logical deductive reasoning and mathematical proof through diverse topics in higher mathematics. Specific topics include set and function theory, modular arithmetic, proof by induction, and the cardinality of infinite sets. May also consider additional topics such as graph theory, number theory, and finite state automata.

PREREQUISITE: MATH 1800 or Placement in 2000, 2020, 2206 (M)

MATH 2109 a-MCSR. Optimization. Adam Levy. Every Other Spring. Fall 2019

A study of optimization problems arising in a variety of situations in the social and natural sciences. Analytic and numerical methods are used to study problems in mathematical programming, including linear models, but with an emphasis on modern nonlinear models. Issues of duality and sensitivity to data perturbations are covered, and there are extensive applications to real-world problems.

PREREQUISITE: MATH 2000

MATH 2206 a-MCSR. Probability. Jack O'Brien. Every Semester. Fall 2019

A study of the mathematical models used to formalize nondeterministic or “chance” phenomena. General topics include combinatorial models, probability spaces, conditional probability, discrete and continuous random variables, independence and expected values. Specific probability densities, such as the binomial, Poisson, exponential, and normal, are discussed in depth.

PREREQUISITE: MATH 1800 or Placement in 2000, 2020, 2206 (M) or Placement in MATH 1400 or 2206 (S)

MATH 2208 a-MCSR. Ordinary Differential Equations. Subhadip Chowdhury. Every Semester. Fall 2019

A study of some of the ordinary differential equations that model a variety of systems in the physical, natural and social sciences. Classical methods for solving differential equations with an emphasis on modern, qualitative techniques for studying the behavior of solutions to differential equations. Applications to the analysis of a broad set of topics, including population dynamics, oscillators and economic markets. Computer software is used as an important tool, but no prior programming background is assumed.

PREREQUISITE: MATH 2000

MATH 2303 a-MCSR. Functions of a Complex Variable. Naomi Tanabe. Every Other Fall. Fall 2019

The differential and integral calculus of functions of a complex variable. Cauchy's theorem and Cauchy's integral formula, power series, singularities, Taylor's theorem, Laurent's theorem, the residue calculus, harmonic functions, and conformal mapping.

PREREQUISITE: MATH 1800 or Placement in 2000, 2020, 2206 (M)

MATH 2404 a-MCSR. Geometry. William Barker. Every Other Spring. Fall 2019

A survey of modern approaches to Euclidean geometry in two dimensions. Axiomatic foundations of metric geometry. Transformational geometry: isometries and similarities. Klein's Erlanger Programm. Symmetric figures. Other topics may be chosen from three-dimensional geometry, ornamental groups, area, volume, fractional dimension, and fractals.

PREREQUISITE: MATH 2020

MATH 2602 a-MCSR. Group Theory. Jennifer Taback. William Barker. Every Other Fall. Fall 2019

An introduction to the theory of finite and infinite groups, with examples ranging from symmetry groups to groups of polynomials and matrices. Properties of mappings that preserve algebraic structures are studied. Topics include cyclic groups, homomorphisms and isomorphisms, normal subgroups, factor groups, the structure of finite abelian groups, and Sylow theorems.

PREREQUISITE: Two of: || MATH 2000 || and MATH 2020

MATH 2603 a-MCSR. Introduction to Analysis. Thomas Pietraho. William Barker. Every Fall. Fall 2019

Building on the theoretical underpinnings of calculus, develops the rudiments of mathematical analysis. Concepts such as limits and convergence from calculus are made rigorous and extended to other contexts, such as spaces of functions. Specific topics include metric spaces, point-set topology, sequences and series, continuity, differentiability, the theory of Riemann integration, and functional approximation and convergence.

PREREQUISITE: MATH 2020

MATH 3108 a. Advanced Topics in Modeling. Patricia Garmirian. Every Other Spring. Fall 2019

A study of mathematical modeling, with emphasis on how to identify scientific questions appropriate for modeling, how to develop a model appropriate for a given scientific question, and how to interpret model predictions. Applications drawn from the natural, physical, environmental, and sustainability sciences. Model analysis uses a combination of computer simulation and theoretical methods and focuses on predictive capacity of a model.

PREREQUISITE: Three of: || MATH 2000 || and MATH 2020 || and MATH 2208

MATH 3606 a. Advanced Topics in Probability and Statistics. Jack O'Brien. Every Other Fall. Fall 2019

One or more specialized topics in probability and statistics. Possible topics include regression analysis, nonparametric statistics, logistic regression, and other linear and nonlinear approaches to modeling data. Emphasis is on the mathematical derivation of the statistical procedures and on the application of the statistical theory to real-life problems.

PREREQUISITE: Two of: || MATH 2000 || and MATH 2606

Music

MUS 1051 c-VPA. Fundamentals of Music. Titus Abbott. Every Semester. Fall 2019

For the entry-level student. Explores the fundamental elements of music -- form, harmony, melody, pitch, rhythm, texture, timbre -- and teaches basic skills in reading and writing Western music notation for the purposes of reading, analyzing, and creating musical works.

MUS 1271 c-IP, VPA. Experiencing Latin American Music. Proxy Instructor Listed for Registration. Vineet Shende. Every Other Fall. Fall 2019

An opportunity to experience Latin American history, heritage, and culture through its music. Students will explore general issues of race, identity, religion, and politics from a broad chronological span—from the 16th to the 21st century—and will relate these to Latin American musics. The course will cover a wide variety of music genres and contexts (e.g. opera, film music, bachata, son jarocho, sacred polyphony, salsa, chamber music and more) and will introduce general elements of music, such as pitch, melody, rhythm, texture, musical time, and form. (Same as LAS 1271)

MUS 1281 c-VPA. History of Jazz I. Tracy McMullen. Every Other Fall. Fall 2019

A socio-cultural, historical, and analytical introduction to jazz music from the turn of the twentieth century to around 1950. Includes some concert attendance. (Same as AFRS 1581)

MUS 1401 c-VPA. Introduction to Music Theory. Frank Mauceri. Every Year. Fall 2019

Designed for students with some beginning experience in music theory and an ability to read music. Covers scales, keys, modes, intervals, and basic tonal harmony.

PREREQUISITE: MUS 1051 or Placement in MUS 1401

MUS 1811 c. Introductory Individual Performance Studies - 1st Semester Flute. Krysia Tripp. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1812 c. Introductory Individual Performance Studies - Flute. Krysia Tripp. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1813 c. Introductory Individual Performance Studies-1st Semester Oboe. Clare MacKenzie. The Department. Sandy Kauffman. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1814 c. Introductory Individual Performance Studies - Oboe. Clare MacKenzie. The Department. Sandy Kauffman. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1815 c. Introductory Individual Performance Studies - 1st Semester Clarinet. Titus Abbott. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1816 c. Introductory Individual Performance Studies - Clarinet. Titus Abbott. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1817 c. Introductory Individual Performance Studies - 1st Semester Bassoon. David Joseph. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1818 c. Introductory Individual Performance Studies - Bassoon. David Joseph. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1819 c. Introductory Individual Performance Studies - 1st Semester Saxophone (Classical). Titus Abbott. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1820 c. Introductory Individual Performance Studies - Saxophone (Classical). Titus Abbott. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1821 c. Introductory Individual Performance Studies - 1st Semester Horn. John Boden. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1822 c. Introductory Individual Performance Studies - Horn. John Boden. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

**MUS 1823 c. Introductory Individual Performance Studies - 1st Semester Trumpet.
Clare MacKenzie. The Department. Sandy Kauffman. Every Semester. Fall 2019**

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

**MUS 1824 c. Introductory Individual Performance Studies - Trumpet. The
Department. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019**

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

**MUS 1825 c. Introductory Individual Performance Studies - 1st Semester Trombone.
Anita-Ann Jerosch. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019**

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1826 c. Introductory Individual Performance Studies - Trombone. Anita-Ann Jerosch. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1833 c. Introductory Individual Performance Studies - 1st Semester Harp. The Department. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1834 c. Introductory Individual Performance Studies - Harp. The Department. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1835 c. Introductory Individual Performance Studies - 1st Semester Classical Guitar. The Department. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1836 c. Introductory Individual Performance Studies - Classical Guitar. The Department. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1837 c. Introductory Individual Performance Studies - 1st Semester Piano. The Department. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1838 c. Introductory Individual Performance Studies - Piano. The Department. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1841 c. Introductory Individual Performance Studies - 1st Semester Violin. The Department. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1842 c. Introductory Individual Performance Studies - Violin. The Department. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1843 c. Introductory Individual Performance Studies - 1st Semester Viola. Kirsten Monke. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1844 c. Introductory Individual Performance Studies - Viola. Kirsten Monke. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1845 c. Introductory Individual Performance Studies - 1st Semester Cello. Christina Chute. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1846 c. Introductory Individual Performance Studies - Cello. Christina Chute. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1847 c. Introductory Individual Performance Studies - 1st Semester Contrabass. Duane Edwards. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1848 c. Introductory Individual Performance Studies - Contrabass. Duane Edwards. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1849 c. Introductory Individual Performance Studies - 1st Semester Mandolin. The Department. Sandy Kauffman. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1851 c. Introductory Individual Performance Studies - 1st Semester Voice (Classical). The Department. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1852 c. Introductory Individual Performance Studies - Voice (Classical). The Department. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1855 c. Introductory Individual Performance Studies - 1st Semester Pop/Jazz Voice. The Department. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1856 c. Introductory Individual Performance Studies - Pop/Jazz Voice. The Department. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1863 c. Introductory Individual Performance Studies - 1st Semester Pop/Jazz Saxophone. Titus Abbott. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1864 c. Introductory Individual Performance Studies - Pop/Jazz Saxophone. Titus Abbott. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1871 c. Introductory Individual Performance Studies - 1st Semester Pop/Jazz Guitar. Gary Wittner. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1872 c. Introductory Individual Performance Studies - Pop/Jazz Guitar. Gary Wittner. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1873 c. Introductory Individual Performance Studies - 1st Semester Pop/Jazz Piano. Matthew Fogg. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1874 c. Introductory Individual Performance Studies - Pop/Jazz Piano. Matthew Fogg. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1875 c. Introductory Individual Performance Studies - 1st Semester Pop/Jazz Bass. Duane Edwards. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1876 c. Introductory Individual Performance Studies - Pop/Jazz Bass. Duane Edwards. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1877 c. Introductory Individual Performance Studies - 1st Semester Pop/Jazz Drums. Ronald Miller. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 1878 c. Introductory Individual Performance Studies - Pop/Jazz Drums. Ronald Miller. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern introductory applied music lessons for credit: (1) Introductory individual performance courses are intended for the study of instruments unfamiliar to the student (2) After two semesters of study, a student advances to intermediate performance courses (28xx). (3) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (4) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2302 c-ESD, VPA. From Claudio Monteverdi to Lin-Manuel Miranda: Issues at the Intersection of Music and Theater. Proxy Instructor Listed for Registration. Vineet Shende. Every Other Year. Fall 2019

Students will explore a wide variety of stage music genres from the invention of opera in seventeenth-century northern Italy to the most recent Broadway productions (i.e. Monteverdi, Lully, Hidalgo, Mozart, Wagner, minstrelsy and vaudeville, Gershwin, Bernstein, Sondheim, Schwartz, Reich, Adams, Lin Manuel Miranda). Students will become familiar with historical conventions, terminology, genres, styles, and processes of expression, including adaptations, staging, and production design. We will also discuss issues on gender, representation, violence, identity, politics, economics, aesthetics, and marketing. (Same as THTR 2302)

PREREQUISITE: MUS 1100 - 1699 or MUS 2100 - 2699 or MUS 3100 - 3699

MUS 2403 c-VPA. Songwriting and Song Analysis. Jeffrey Christmas. Every Fall. Fall 2019

An intensive project-oriented course in which students learn skills such as melodic and rhythmic writing, arranging, studio production, text-setting, and basic chromatic harmony, and how those elements combine to affect listeners on an emotional level. Repertoire studied largely chosen by students, but also includes songs by the Beatles, various Motown artists, Joni Mitchell, Prince, and Radiohead. Small-group and individual lab sessions scheduled separately.

PREREQUISITE: MUS 1401 or Placement in MUS 2403

MUS 2701 c-VPA. West African Music Ensemble - Initial Semester. Marceline Saibou. Every Semester. Fall 2019

Performs the musical traditions of a variety of West African cultures. Students learn and perform multiple instruments, including drums, rattles, and bells, as well as various forms of West African singing and dance. Culminates in a concert every semester. Rehearsals are Wednesday evenings, 6:30-9:30.

MUS 2702 c-VPA. West African Music Ensemble. Marceline Saibou. Every Semester. Fall 2019

Performs the musical traditions of a variety of West African cultures. Students learn and perform multiple instruments, including drums, rattles, and bells, as well as various forms of West African singing and dance. Culminates in a concert every semester. Rehearsals are Wednesday evenings, 6:30-9:30.

PREREQUISITE: MUS 2701

MUS 2705 c-VPA. Middle Eastern Ensemble - Initial Semester. Eric LaPerna. Amos Libby. Sandy Kauffman. Every Semester. Fall 2019

Meets once a week on Monday evenings, and performs pieces from the Arabic, Turkish, Armenian, and Greek traditions. Coached by oud player Amos Libby and percussionist Eric La Perna, the group performs one concert per semester. No experience is required to join; students have the option of singing, learning new percussion instruments, or playing an instrument with which they are already familiar.

MUS 2706 c-VPA. Middle Eastern Ensemble. Eric LaPerna. Amos Libby. Sandy Kauffman. Every Semester. Fall 2019

Meets once a week on Monday evenings, and performs pieces from the Arabic, Turkish, Armenian, and Greek traditions. Coached by oud player Amos Libby and percussionist Eric La Perna, the group performs one concert per semester. No experience is required to join; students have the option of singing, learning new percussion instruments, or playing an instrument with which they are already familiar.

PREREQUISITE: MUS 2769 or MUS 2705

MUS 2711 c-VPA. Jazz Combos - Initial Semester. The Department. Every Semester. Fall 2019

Groups of four to six students, formed by audition, and performing both modern and classic standards, plus some original compositions by students and faculty. They perform one concert a semester on campus, and appear occasionally in other venues. Rehearsals are arranged to suit the players' and coaches' schedules.

MUS 2712 c-VPA. Jazz Combos. The Department. Every Semester. Fall 2019

Groups of four to six students, formed by audition, and performing both modern and classic standards, plus some original compositions by students and faculty. They perform one concert a semester on campus, and appear occasionally in other venues. Rehearsals are arranged to suit the players' and coaches' schedules.

PREREQUISITE: MUS 2711 or MUS 2783

MUS 2721 c-VPA. Chamber Ensembles - Initial Semester. The Department. Every Semester. Fall 2019

Groups of three to six students, formed by audition. With the guidance of a faculty coach, these groups delve into and perform select pieces from the chamber music repertory of the the past four hundred years. Some of these groups will be standard chamber ensembles (e.g., string quartets, piano trios, brass quintets); others will be formed according to student and repertoire demand. Rehearsals are arranged to suit the players' and coach's schedules.

MUS 2722 c-VPA. Chamber Ensembles. The Department. Every Semester. Fall 2019

Groups of three to six students, formed by audition. With the guidance of a faculty coach, these groups delve into and perform select pieces from the chamber music repertory of the the past four hundred years. Some of these groups will be standard chamber ensembles (e.g., string quartets, piano trios, brass quintets); others will be formed according to student and repertoire demand. Rehearsals are arranged to suit the players' and coach's schedules.

PREREQUISITE: MUS 2779 or MUS 2721

MUS 2731 c-VPA. Orchestra - Initial Semester. George Lopez. Vineet Shende. Every Semester. Fall 2019

An auditioned ensemble of about fifty student musicians playing woodwind, brass, percussion, and string instruments. Repertoire for the group varies widely from semester to semester and explores the vast body of orchestral literature from the past 250 years to today. Rehearsals are Sunday afternoons and Wednesday evenings.

MUS 2732 c-VPA. Orchestra. George Lopez. Vineet Shende. Every Semester. Fall 2019

An auditioned ensemble of about fifty student musicians playing woodwind, brass, percussion, and string instruments. Repertoire for the group varies widely from semester to semester and explores the vast body of orchestral literature from the past 250 years to today. Rehearsals are Sunday afternoons and Wednesday evenings.

PREREQUISITE: MUS 2777 or MUS 2731

MUS 2741 c-VPA. Chamber Choir - Initial Semester. Robert Greenlee. Vineet Shende. Every Semester. Fall 2019

An auditioned group of about thirty student singers. The choir performs at least three times a semester, and sometimes at festivals and society meetings in the US. Recent tours abroad, which occur about every three years during spring break, have taken the ensemble to Portugal, Germany, Ireland, England, Chile, Hungary, and Slovakia. Repertoire in the fall is "Sky Music," including Whitacre's "Cloudburst," as well as music by Gjeilo, Elder, and Esenwalds; gospel and folk/pop music; and a song from the recent show Dear Evan Hanson. Rehearsals are Monday and Thursdays 4:30-5:40, plus a sectional on either Tuesday or Wednesday.

MUS 2742 c-VPA. Chamber Choir. Robert Greenlee. Vineet Shende. Every Semester. Fall 2019

An auditioned group of about thirty student singers. The choir performs at least three times a semester, and sometimes at festivals and society meetings in the US. Recent tours abroad, which occur about every three years during spring break, have taken the ensemble to Portugal, Germany, Ireland, England, Chile, Hungary, and Slovakia. Repertoire in the fall is "Sky Music," including Whitacre's "Cloudburst," as well as music by Gjeilo, Elder, and Esenwalds; gospel and folk/pop music; and a song from the recent show Dear Evan Hanson. Rehearsals are Monday and Thursdays 4:30-5:40, plus a sectional on either Tuesday or Wednesday.

PREREQUISITE: MUS 2771 or MUS 2741

MUS 2745 c-VPA. Chorus - Initial Semester. Anthony Antolini. Every Semester. Fall 2019

An auditioned ensemble of students, faculty, staff, and community singers. At least one of the semesters features a large-scale work for chorus and orchestra. Recent tours have included all the major cities of New England, Serbia, Bulgaria, and Greece. Rehearsals are Thursday and Sunday evenings. Sight reading ability is desired but not required.

MUS 2746 c-VPA. Chorus. Anthony Antolini. Every Semester. Fall 2019

An auditioned ensemble of students, faculty, staff, and community singers. At least one of the semesters features a large-scale work for chorus and orchestra. Recent tours have included all the major cities of New England, Serbia, Bulgaria, and Greece. Rehearsals are Thursday and Sunday evenings. Sight reading ability is desired but not required.

PREREQUISITE: MUS 2773 or MUS 2745

MUS 2751 c-VPA. Concert Band - Initial Semester. John Morneau. The Department. Sandy Kauffman. Every Semester. Fall 2019

An ensemble open to all students with wind and percussion experience that performs several major concerts each year on campus, along with performances at campus events and ceremonies. Repertoire consists of a variety of literature, from the finest of the wind band repertoire to light classics, show tunes, and marches. Students have been featured as soloists and conductors, and student compositions have been premiered by the ensemble. Rehearsals are Tuesday and Thursday evenings.

MUS 2752 c-VPA. Concert Band. John Morneau. The Department. Sandy Kauffman. Every Semester. Fall 2019

An ensemble open to all students with wind and percussion experience that performs several major concerts each year on campus, along with performances at campus events and ceremonies. Repertoire consists of a variety of literature, from the finest of the wind band repertoire to light classics, show tunes, and marches. Students have been featured as soloists and conductors, and student compositions have been premiered by the ensemble. Rehearsals are Tuesday and Thursday evenings.

PREREQUISITE: MUS 2775 or MUS 2751

MUS 2811 c. Intermediate Individual Performance Studies - 1st Semester Flute. Kryisia Tripp. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2812 c. Intermediate Individual Performance Studies - Flute. Kryisia Tripp. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2813 c. Intermediate Individual Performance Studies - 1st Semester Oboe. Clare MacKenzie. The Department. Sandy Kauffman. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2814 c. Intermediate Individual Performance Studies - Oboe. The Department. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2815 c. Intermediate Individual Performance Studies - 1st Semester Clarinet. Titus Abbott. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2816 c. Intermediate Individual Performance Studies - Clarinet. Titus Abbott. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2817 c. Intermediate Individual Performance Studies - 1st Semester Bassoon. David Joseph. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2818 c. Intermediate Individual Performance Studies - Bassoon. David Joseph. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2819 c. Intermediate Individual Performance Studies - 1st Semester Saxophone (Classical). Titus Abbott. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2820 c. Intermediate Individual Performance Studies - Saxophone (Classical). Titus Abbott. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2821 c. Intermediate Individual Performance Studies - 1st Semester Horn. John Boden. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2822 c. Intermediate Individual Performance Studies - Horn. John Boden. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2823 c. Intermediate Individual Performance Studies - 1st Semester Trumpet. The Department. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2824 c. Intermediate Individual Performance Studies - Trumpet. The Department. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2825 c. Intermediate Individual Performance Studies - 1st Semester Trombone. Anita-Ann Jerosch. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2826 c. Intermediate Individual Performance Studies - Trombone. Anita-Ann Jerosch. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2833 c. Intermediate Individual Performance Studies - 1st Semester Harp. The Department. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2834 c. Intermediate Individual Performance Studies - Harp. The Department. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2835 c. Intermediate Individual Performance Studies - 1st Semester Classical Guitar. John Johnstone. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2836 Intermed Perf Studies - Guitar. John Johnstone. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2837 c. Intermediate Individual Performance Studies - 1st Semester Piano. The Department. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2838 c. Intermediate Individual Performance Studies - Piano. The Department. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2841 c. Intermediate Individual Performance Studies - 1st Semester Violin. The Department. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2842 c. Intermediate Individual Performance Studies - Violin. The Department. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2843 c. Intermediate Individual Performance Studies - 1st Semester Viola. Kirsten Monke. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2844 c. Intermediate Individual Performance Studies - Viola. Kirsten Monke. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

**MUS 2845 c. Intermediate Individual Performance Studies - 1st Semester Cello.
Christina Chute. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019**

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

**MUS 2846 c. Intermediate Individual Performance Studies - Cello. Christina Chute.
Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019**

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

**MUS 2847 c. Intermediate Individual Performance Studies - 1st Semester Contrabass.
Duane Edwards. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019**

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2848 c. Intermediate Individual Performance Studies - Contrabass. Duane Edwards. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2851 c. Intermediate Individual Performance Studies - 1st Semester Voice (Classical). The Department. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2852 c. Intermediate Individual Performance Studies - Voice (Classical). The Department. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2855 c. Intermediate Individual Performance Studies - 1st Semester Pop/Jazz Voice. The Department. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2856 c. Intermediate Individual Performance Studies - Pop/Jazz Voice. The Department. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2863 c. Intermediate Individual Performance Studies - 1st Semester Pop/Jazz Saxophone. Titus Abbott. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2864 c. Intermediate Individual Performance Studies - Pop/Jazz Saxophone. Titus Abbott. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2871 c. Intermediate Individual Performance Studies - 1st Semester Pop/Jazz Guitar. Gary Wittner. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2872 c. Intermediate Individual Performance Studies - Pop/Jazz Guitar. Gary Wittner. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2873 c. Intermediate Individual Performance Studies - 1st Semester Pop/Jazz Piano. Matthew Fogg. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2874 c. Intermediate Individual Performance Studies - Pop/Jazz Piano. Matthew Fogg. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2875 c. Intermediate Individual Performance Studies - 1st Semester Pop/Jazz Bass. Duane Edwards. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2876 c. Intermediate Individual Performance Studies - Pop/Jazz Bass. Duane Edwards. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2877 c. Intermediate Individual Performance Studies - 1st Semester Pop/Jazz Drums. Ronald Miller. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 2878 c. Intermediate Individual Performance Studies - Pop/Jazz Drums. Ronald Miller. Sandy Kauffman. Clare MacKenzie. Every Semester. Fall 2019

The following provisions govern applied music lessons for credit: (1) Individual performance courses are intended for the continued study of instruments with which the student possesses basic technical facility or has taken two semesters of beginner lessons. (2) One-half credit is granted for each semester of study. Grading is Credit/D/Fail. (3) To receive credit, students are strongly encouraged to register for lessons with the Music Department Academic Coordinator during Round I and Round II in the semester preceding the semester of study. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The absolute deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes. (4) Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. (5) Students taking lessons for credit pay a fee for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge. Scholarships are available for students on financial aid. Please see the Department of Music for details.

MUS 3205 c-IP. African Popular Music and Cultural Hybridity: Sounds, Discourses, and Critical Issues. Marceline Saibou. Non-Standard Rotation. Fall 2019

Examines the politics and poetics of cultural hybridity in the context of select popular music genres in and from Africa, and critically engages with related scholarly, nationalist, and popular discourses. Musical genres covered range from early twentieth-century West African palmwine music to contemporary manifestations of hip hop across the African continent, and include musical products of post-independence cultural policies and the transnational marketing niche of “Afropop”. The rise and popularity of these genres is historicized and analyzed in the context of major social, ideological, political, and economic forces that have shaped Africa over the past 100 years, including colonialism, modern urbanization, independence movements, and globalization. Course materials include writings from the fields of ethnomusicology, cultural studies, and postcolonial theory, musical audio and video recordings, journalistic and promotional sources, as well as film documentaries. (Same as AFRS 3205)

PREREQUISITE: MUS 2000 - 2969 or AFRS 2000 - 2969 or MUS 3000 or higher or AFRS 3000 or higher

MUS 3811 c-VPA. Advanced Individual Performance Studies - 1st Semester Flute. Krysia Tripp. Sandy Kauffman. Every Semester. Fall 2019

MUS 3863 c-VPA. Advanced Individual Performance Studies - 1st Semester Pop/Jazz Saxophone. Titus Abbott. Sandy Kauffman. Every Semester. Fall 2019

Neuroscience

NEUR 2135 a-MCSR, INS. Neurobiology. Hadley Horch. Patsy Dickinson. Every Fall. Fall 2019

Examines fundamental concepts in neurobiology from the molecular to the systems level. Topics include neuronal communication, gene regulation, morphology, neuronal development, axon guidance, mechanisms of neuronal plasticity, sensory systems, and the molecular basis of behavior and disease. Weekly lab sessions introduce a wide range of methods used to examine neurons and neuronal systems. (Same as BIOL 2135)

PREREQUISITE: BIOL 1102 or BIOL 1109 or Placement in BIOL 2000 level

NEUR 2553 a-INS. Neurophysiology. Patsy Dickinson. Every Fall. Fall 2019

A comparative study of the function of the nervous system in invertebrate and vertebrate animals. Topics include the mechanism that underlie both action potentials and patterns of spontaneous activity in individual nerve cells, interactions between neurons, and the organization of neurons into larger functional units. Lectures and four hours of laboratory work per week. (Same as BIOL 2553)

PREREQUISITE: Two of: || either BIOL 1102 or BIOL 1109 || and either BIOL 2135 or BIOL 2214 or PSYC 2050

NEUR 2750 a-INS. Laboratory in Behavioral Neuroscience: Social Behavior. Proxy Instructor Listed for Registration. Richmond Thompson. Every Fall. Fall 2019

A laboratory course that exposes students to modern techniques in neuroscience that can be applied to the study of social behavior. Underlying concepts associated with various molecular, neuroanatomical, pharmacological, and electrophysiological methods are discussed in a lecture format. Students then use these techniques in laboratory preparations that demonstrate how social behavior is organized within the central nervous system of vertebrate animals, including humans. (Same as PSYC 2750)

PREREQUISITE: Three of: || either PSYC 2050 (same as NEUR 2050) or BIOL 2135 (same as NEUR 2135) or PSYC 2060 (same as NEUR 2060) || and PSYC 2510 or either BIOL 1102 or BIOL 1109 || and PSYC 2520 or either MATH 1300 or MATH 1400

NEUR 3057 a. Seminar in Behavioral Neuroscience. Proxy Instructor Listed for Registration. Richmond Thompson. Non-Standard Rotation. Fall 2019

An advanced seminar covering brain mechanisms that affect behavior in humans and other animals. Topics may include the neural circuits that regulate normal social interactions, learning and memory processes, and/or higher cognitive functions, as well as the relationship between disrupted neural functions and mental disorders. The major emphasis of the course will be on reading and discussing primary research articles in the field of behavioral neuroscience. (Same as PSYC 3057)

PREREQUISITE: Three of: || either PSYC 2050 (same as NEUR 2050) or PSYC 2060 (same as NEUR 2060) or BIOL 2135 (same as NEUR 2135) || and PSYC 2510 or either BIOL 1102 or BIOL 1109 || and PSYC 2520 or either MATH 1300 or MATH 1400

NEUR 3311 a. Motor Systems Neurobiology. Proxy Instructor Listed for Registration. Patsy Dickinson. Non-Standard Rotation. Fall 2019

In this course you will learn about the main animal models used in the study of how the nervous system controls motor behavior as animals, including humans, interact with the environment. The course will cover the principal motor systems (including those for walking, flying, swimming, breathing and others) focusing in particular on bridging the gap between molecular/cellular neuroscience and higher-level perception and behavior. Topics to be covered include: neuroanatomy, neurophysiology and functions of the most studied animal behaviors, and the groups of interconnected neurons (termed neural circuits) that control them. Students will read, interpret, analyze and discuss seminal (classical) and recent scientific papers from influential motor systems neurobiology laboratories. The course will also discuss the relevance of these neuronal motor systems to human diseases. (Same as BIOL 3311)

PREREQUISITE: BIOL 2112 or BIOL 2124 (same as BIOC 2124) or BIOL 2135 (same as NEUR 2135) or BIOL 2175 or BIOL 2553 (same as NEUR 2553) or BIOL 2566 (same as NEUR 2566) or PSYC 2750 (same as NEUR 2750) or PSYC 2751

Philosophy

PHIL 1028 c. A Philosopher's Dozen. Matthew Stuart. . Fall 2019

An introduction to philosophy by way of twelve famous thought experiments. Explores central questions in metaphysics, epistemology, and ethics by considering such imaginary scenarios as the runaway trolley, Mary in the black and white room, the ailing violinist, the split-brain transplant, the evil neurosurgeon, twin earth, and the experience machine.

PHIL 1032 c. Crime and Punishment. Kristi Olson. Every Year. Fall 2019

Examines philosophical issues raised by the criminal law, including the moral justification of punishment, the proper subject matter of criminal law (that is, what should be a crime?), ethical issues in law enforcement, and the theoretical underpinnings of different criminal defenses.

PHIL 1442 c. Philosophy of Religion. Scott Sehon. Every Other Year. Fall 2019

Does God exist? Can the existence of God be proven? Can it be disproven? Is it rational to believe in God? What does it mean to say that God exists (or does not exist)? What distinguishes religious beliefs from non-religious beliefs? What is the relation between religion and science? Approaches these and related questions through a variety of historical and contemporary sources, including philosophers, scientists, and theologians. (Same as REL 1142)

PHIL 2111 c. Ancient Philosophy. Proxy Instructor Listed for Registration. Sarah Conly. Every Fall. Fall 2019

We will read some of the most important works by Plato and Aristotle, two of the greatest western thinkers, and major influences on western thought. Explores questions in ethics, politics, art, psychology, the concept of knowledge, and the nature of reality.

PHIL 2223 a-MCSR. Logic. Scott Sehon. Every Fall. Fall 2019

The central problem of logic is to determine which arguments are good and which are bad. To this end, we introduce a symbolic language and rigorous, formal methods for seeing whether one statement logically implies another. We apply these tools to a variety of arguments, philosophical and otherwise, and demonstrate certain theorems about the formal system we construct.

PHIL 2325 c. Aesthetics. Proxy Instructor Listed for Registration. Sarah Conly. Non-Standard Rotation. Fall 2019

Analyzes and evaluates the main approaches in the philosophy of art. Many modern and postmodern artworks challenge us to figure out why, on any theory, they would count as art at all. Our aim is to highlight the rich diversity of art in order to convey the difficulty of coming up with suitable theories, especially in light of the expanding mediascape of digital culture.

PHIL 2350 c. What is Equality?. Kristi Olson. Non-Standard Rotation. Fall 2019

What do we really want when we advocate for greater equality? Should we equalize income or something else? If everybody had enough, would we still have a reason to pursue equality? What should we do in those cases in which individuals are responsible, through their choices, for having less? Seeks to answer these and other questions by examining theories of equality in contemporary political philosophy.

PHIL 2427 c. Metaphysics. Matthew Stuart. Non-Standard Rotation. Fall 2019

Metaphysics is the study of very abstract questions about reality. What does reality include? What is the relation between things and their properties? What is time? Do objects and persons have temporal parts as well as spatial parts? What accounts for the identity of persons over time? What is action, and do we ever act freely?

PHIL 3316 c. Contemporary Theories of Racism. Proxy Instructor Listed for Registration. Sarah Conly. Non-Standard Rotation. Fall 2019

Examines contemporary theories of racism prominent in philosophy, social psychology, sociology, and history. Though we will read widely across disciplines, our focus is philosophical: What is racism? Who gets to define the term? What's at stake in defining it? How do issues of implicit racial bias, hate speech, xenophobia, dehumanization, oppression, and ideology (to name just a few intersections) enter competing theories? Is racism fundamentally mental, institutional, some combination of both, or what? Can a single definition accommodate everything that is called racism or do we need multiple definitions? Is "racism" overused to the point of diminishing the term's moral force/opprobrium? These are some of the issues we'll explore. Be forewarned that there will be a lot of dense reading for this course. Reading and comprehending assigned texts, and keeping tabs of points of disagreement and convergence among authors will prove crucial to successful completion of this course.

PREREQUISITE: PHIL 1000 - 2969 or PHIL 3000 or higher

Physics and Astronomy

PHYS 1082 a-MCSR, INS. Physics of Musical Sound. Karen Topp. Every Other Fall. Fall 2019

An introduction to the physics of sound, specifically relating to the production and perception of music. Topics include simple vibrating systems; waves and wave propagation; resonance; understanding intervals, scales, and tuning; sound intensity and measurement; sound spectra; how various musical instruments and the human voice work. Students expected to have some familiarity with basic musical concepts such as scales and intervals. Not open to students who have credit for or are concurrently taking any physics course numbered 1100 or higher.

PREREQUISITE: MUS 1051 or Placement in MUS 1401 or Placement in MUS 2403 or MUS 1801 - 1878 or MUS 2701 - 2752 or MUS 2769 - 2779 or MUS 2783 or MUS 2801 - 2878

PHYS 1093 a-MCSR. Introduction to Quantitative Reasoning in the Physical Sciences. Proxy Instructor Listed for Registration. Madeleine Msall. Every Fall. Fall 2019

Climate science. Quantum Physics. Bioengineering. Rocket science. Who can understand it? Anyone with high school mathematics (geometry and algebra) can start. Getting started in physics requires an ability to mathematically describe real world objects and experiences. Prepares students for additional work in physical science and engineering by focused practice in quantitative description, interpretation, and calculation. Includes hands-on measurements, some introductory computer programming, and many questions about the physics all around us. Registration for this course is by placement only. To ensure proper placement, students must have taken the physics placement examination prior to registering for Physics 1093. (Same as CHEM 1093)

PREREQUISITE: Placement in PHYS 1093

PHYS 1130 a-MCSR, INS. Introductory Physics I. The Department. Every Semester. Fall 2019

An introduction to the conservation laws, forces, and interactions that govern the dynamics of particles and systems. Shows how a small set of fundamental principles and interactions allow us to model a wide variety of physical situations, using both classical and modern concepts. A prime goal of the course is to have the participants learn to actively connect the concepts with the modeling process. Three hours of laboratory work per week. To ensure proper placement, students are expected to have taken the physics placement examination prior to registering for Physics 1130.

PREREQUISITE: Two of: || MATH 1600 or higher or Placement in MATH 1700 (M) or Placement in MATH 1750 (M) or Placement in MATH 1800 (M) or Placement in 2000, 2020, 2206 (M) || and PHYS 1093 or Placement in PHYS 1130

PHYS 1140 a-MCSR, INS. Introductory Physics II. Stephen Naculich. Every Semester. Fall 2019

An introduction to the interactions of matter and radiation. Topics include the classical and quantum physics of electromagnetic radiation and its interaction with matter, quantum properties of atoms, and atomic and nuclear spectra. Laboratory work (three hours per week) includes an introduction to the use of electronic instrumentation.

PREREQUISITE: Two of: || MATH 1700 - 1800 or Placement in MATH 1800 (M) or Placement in 2000, 2020, 2206 (M) || and PHYS 1130 or Placement in PHYS 1140

PHYS 1510 a-MCSR, INS. Introductory Astronomy. Proxy Instructor Listed for Registration. Stephen Naculich. Every Spring. Fall 2019

A quantitative introduction to astronomy with emphasis on stars and the structures they form, from binaries to galaxies. Topics include the night sky, the solar system, stellar structure and evolution, white dwarfs, neutron stars, black holes, and the expansion of the universe. Several nighttime observing sessions required. Does not satisfy pre-med or other science departments' requirements for a second course in physics.

PREREQUISITE: MATH 1600 or higher or Placement in MATH 1700 (M) or Placement in MATH 1750 (M) or Placement in MATH 1800 (M) or Placement in 2000, 2020, 2206 (M)

PHYS 2130 a-MCSR, INS. Electric Fields and Circuits. Mark Battle. Every Fall. Fall 2019

The basic phenomena of the electromagnetic interaction are introduced. The basic relations are then specialized for a more detailed study of linear circuit theory. Laboratory work stresses the fundamentals of electronic instrumentation and measurement with basic circuit components such as resistors, capacitors, inductors, diodes, and transistors. Three hours of laboratory work per week.

PREREQUISITE: PHYS 1140

PHYS 2900 a-MCSR, INS. Topics in Contemporary Physics. Madeleine Msall. Non-Standard Rotation. Fall 2019

Seminar exploring recent results from research in all fields of physics. Focuses on discussion of papers in the scientific literature. Grading is Credit/D/Fail. One-half credit.

PREREQUISITE: PHYS 2130 or PHYS 2140 or PHYS 2150

**PHYS 3000 a-MCSR, INS. Methods of Theoretical Physics. Thomas Baumgarte.
Every Fall. Fall 2019**

Mathematics is the language of physics. Similar mathematical techniques occur in different areas of physics. A physical situation may first be expressed in mathematical terms, usually in the form of a differential or integral equation. After the formal mathematical solution is obtained, the physical conditions determine the physically viable result. Examples are drawn from heat flow, gravitational fields, and electrostatic fields.

PREREQUISITE: Two of: || either PHYS 2130 or PHYS 2140 or PHYS 2150 || and MATH 1800 or Placement in 2000, 2020, 2206 (M)

**PHYS 3020 a-MCSR, INS. Methods of Computational Physics. Thomas Baumgarte.
Every Other Fall. Fall 2019**

An introduction to the use of computers to solve problems in physics. Problems are drawn from several different branches of physics, including mechanics, hydrodynamics, electromagnetism, and astrophysics. Numerical methods discussed include the solving of linear algebra and eigenvalue problems, ordinary and partial differential equations, and Monte Carlo techniques. Basic knowledge of a programming language is expected.

PREREQUISITE: Two of: || either CSCI 1101 or Placement in above CSCI 1101 or CSCI 1103 || and PHYS 1140

**PHYS 3140 a-MCSR, INS. Quantum Mechanics. Stephen Naculich. Every Fall. Fall
2019**

A mathematically rigorous development of quantum mechanics, emphasizing the vector space structure of the theory through the use of Dirac bracket notation. Linear algebra developed as needed.

PREREQUISITE: Two of: || PHYS 2140 || and PHYS 3000

Psychology

PSYC 1101 b. Introduction to Psychology. The Department. Every Semester. Fall 2019

A general introduction to the major concerns of contemporary psychology, including physiological psychology, perception, learning, cognition, language, development, personality, intelligence, and abnormal and social behavior. Recommended for first- and second-year students. Juniors and seniors should enroll in the spring semester.

PSYC 2010 b. Infant and Child Development. Samuel Putnam. Every Semester. Fall 2019

A survey of major changes in psychological functioning from conception through childhood. Several theoretical perspectives are used to consider how physical, personality, social, and cognitive changes jointly influence the developing child's interactions with the environment.

PREREQUISITE: PSYC 1101 or Placement in above PSYC 1101

PSYC 2025 b. Abnormal Psychology. Hannah Reese. Every Fall. Fall 2019

An introduction to the phenomenology, etiology, and treatment of mental disorders. Major topics include depression, bipolar disorder, anxiety disorders, obsessive-compulsive disorder, post-traumatic stress disorder, schizophrenia, eating disorders, and personality disorders. Current paradigms for understanding psychopathology, diagnosis and assessment, and research methods specific to clinical psychology also discussed.

PREREQUISITE: PSYC 1101 or Placement in above PSYC 1101

PSYC 2510 b. Research Design in Psychology. Proxy Instructor Listed for Registration. Louisa Slowiaczek. Every Semester. Fall 2019

A systematic study of the scientific method as it underlies psychological research. Topics include prominent methods used in studying human and animal behavior, the logic of causal analysis, experimental and non-experimental designs, issues in internal and external validity, pragmatics of careful research, and technical writing of research reports.

PREREQUISITE: PSYC 1101 or Placement in above PSYC 1101

PSYC 2520 a-MCSR. Data Analysis. Proxy Instructor Listed for Registration. Suzanne Lovett. Every Semester. Fall 2019

An introduction to the use of descriptive and inferential statistics and design in behavioral research. Weekly laboratory work in computerized data analysis. Required of majors no later than the junior year, and preferably by the sophomore year.

PREREQUISITE: Two of: || either BIOL 1102 or BIOL 1109 or Placement in BIOL 2000 level or PSYC 2510 || and PSYC 1101 or Placement in above PSYC 1101

PSYC 2735 b. Laboratory in Social Psychology. Proxy Instructor Listed for Registration. Andrew Christy. Every Fall. Fall 2019

An examination of different research methodologies used by social psychologists, including archival research, observation, questionnaires, lab experiments, and online data collection. Students learn about the relative strengths and weaknesses of these different methodological approaches, both by reading research reports and by designing and conducting original research.

PREREQUISITE: Three of: || either PSYC 2030 or PSYC 2032 - 2034 || and PSYC 2510 || and PSYC 2520

PSYC 2740 b. Laboratory in Cognition. Louisa Slowiaczek. Every Fall. Fall 2019

An analysis of research methodology and experimental investigations in cognition, including such topics as auditory and sensory memory, visual perception, attention and automaticity, retrieval from working memory, implicit and explicit memory, metamemory, concept formation and reasoning. Weekly laboratory sessions allow students to collect and analyze data in a number of different areas of cognitive psychology.

PREREQUISITE: Three of: || PSYC 2040 || and PSYC 2510 || and PSYC 2520

PSYC 2750 a-INS. Laboratory in Behavioral Neuroscience: Social Behavior. Proxy Instructor Listed for Registration. Richmond Thompson. Every Fall. Fall 2019

A laboratory course that exposes students to modern techniques in neuroscience that can be applied to the study of social behavior. Underlying concepts associated with various molecular, neuroanatomical, pharmacological, and electrophysiological methods are discussed in a lecture format. Students then use these techniques in laboratory preparations that demonstrate how social behavior is organized within the central nervous system of vertebrate animals, including humans. (Same as NEUR 2750)

PREREQUISITE: Three of: || either PSYC 2050 (same as NEUR 2050) or BIOL 2135 (same as NEUR 2135) or PSYC 2060 (same as NEUR 2060) || and PSYC 2510 or either BIOL 1102 or BIOL 1109 || and PSYC 2520 or either MATH 1300 or MATH 1400

PSYC 3010 b. Social Development. Samuel Putnam. Every Other Fall. Fall 2019

Research and theory regarding the interacting influences of biology and the environment as they are related to social and emotional development during infancy, childhood, and adolescence. Normative and idiographic development in a number of domains, including morality, aggression, personality, sex roles, peer interaction, and familial relationships are considered.

PREREQUISITE: Three of: || PSYC 2010 || and PSYC 2510 || and PSYC 2520

PSYC 3025 b. Psychotherapy and Behavior Change. Hannah Reese. Every Fall. Fall 2019

An in-depth study of the theory, research, and practice of contemporary psychotherapy. Major topics may include theoretical approaches to therapy, methods for studying its efficacy, processes of change, the role of the client-therapist relationship, and challenges to disseminating effective psychological treatments to the general public. Readings and discussion supplemented with video of psychotherapy sessions.

PREREQUISITE: Three of: || either PSYC 2020 or PSYC 2025 || and PSYC 2510 || and PSYC 2520

PSYC 3057 a. Seminar in Behavioral Neuroscience. Proxy Instructor Listed for Registration. Richmond Thompson. Non-Standard Rotation. Fall 2019

An advanced seminar covering brain mechanisms that affect behavior in humans and other animals. Topics may include the neural circuits that regulate normal social interactions, learning and memory processes, and/or higher cognitive functions, as well as the relationship between disrupted neural functions and mental disorders. The major emphasis of the course will be on reading and discussing primary research articles in the field of behavioral neuroscience. (Same as NEUR 3057)

PREREQUISITE: Three of: || either PSYC 2050 (same as NEUR 2050) or PSYC 2060 (same as NEUR 2060) or BIOL 2135 (same as NEUR 2135) || and PSYC 2510 or either BIOL 1102 or BIOL 1109 || and PSYC 2520 or either MATH 1300 or MATH 1400

Religion

REL 1008 c. Believers, Converts, and Apostates. Jessica Mutter. Non-Standard Rotation. Fall 2019

Examines conversion in various religions, including Islam, Christianity, Judaism, and Hinduism. Through primary and secondary source materials, students will explore historical and modern understandings and practices of conversion as a signifier, rite, or ritual of entrance or immersion into a religious tradition and its community. Students will read firsthand accounts of conversions, secondhand conversion narratives, attempts to define conversion, religious guidelines for conversion, and texts examining the implications of converting away from one community and into another. Among others, accounts of apostasy, coerced conversion, conversion for the purposes of marriage or inheritance, and conversions described as spiritual epiphanies will be examined. Students will also complete a writing-focused research project on conversion over the course of the semester. The project will incorporate a series of guided assignments for each step of the research project (proposal, annotated bibliography, draft, and presentation). This managed, writing-intensive research project will allow first-year students to develop their research and writing skills at the college level while familiarizing them with the resources Bowdoin has to offer for their research. The course questions how to define conversion and whether it is possible to formulate a universal definition for conversion across religions and cultures.

REL 1104 b-ESD, IP. Introduction to African Religions and Cultures. Brian Purnell. Proxy Instructor Listed for Registration. Every Other Fall. Fall 2019

By 2050 over one-quarter of the world's population will live in Africa, and yet African people, cultures, and religions are more misunderstood than any other. This course provides an introduction to the varied and diverse peoples and cultures of Africa, taking religion as the starting point for their ways of life. Rather than providing a survey of specific regions and populations, we will focus on broader categories such as cosmology, family and social structure, history, arts, gender and sexuality, and economics. We will examine the ways traditional forms of religion, Christianity, and Islam have played a fundamental role in shaping the realities of African societies as well as African diaspora traditions. This course is open to all students of all backgrounds and knowledge about Africa. (Same as AFRS 1104)

REL 1142 c. Philosophy of Religion. Scott Schon. Every Other Year. Fall 2019

Does God exist? Can the existence of God be proven? Can it be disproven? Is it rational to believe in God? What does it mean to say that God exists (or does not exist)? What distinguishes religious beliefs from non-religious beliefs? What is the relation between religion and science? Approaches these and related questions through a variety of historical and contemporary sources, including philosophers, scientists, and theologians. (Same as PHIL 1442)

REL 2204 c. Science, Magic, and Religion. Dallas Denery. Every Other Year. Fall 2019

Traces the origins of the scientific revolution through the interplay between late-antique and medieval religion, magic, and natural philosophy. Particular attention is paid to the conflict between paganism and Christianity, the meaning and function of religious miracles, the rise and persecution of witchcraft, and Renaissance hermeticism. Note: This course fulfills the pre-modern requirement for history majors. Note: This course is part of the following field(s) of study: Europe. It also meets the pre-modern requirement for history majors and minors.. (Same as HIST 2040)

REL 2208 c-IP. Islam. Jessica Mutter. Every Other Year. Fall 2019

With an emphasis on primary sources, pursues major themes in Islamic civilization from the revelation of the Qur'an to Muhammad until the present. From philosophy to political Islam, and from mysticism to Muslims in America, explores the diversity of a rapidly growing religious tradition.

REL 2215 c-ESD. The Hebrew Bible in Its World. Todd Berzon. Every Other Year. Fall 2019

Close readings of chosen texts in the Hebrew Bible (i.e., the Old Testament), with emphasis on its Near Eastern religious, cultural, and historical context. Attention is given to the Hebrew Bible's literary forerunners (from c. 4000 B.C.E. onwards) to its successor, The Dead Sea Scrolls (c. 200 B.C.E. to 200 A.C.E.). Emphasis on creation and cosmologies, gods and humans, hierarchies, politics, and rituals.

REL 2220 c-IP. Hindu Literatures. Proxy Instructor Listed for Registration. Elizabeth Pritchard. Non-Standard Rotation. Fall 2019

In this exploration of Hindu texts, we delve into some of the most ancient and beloved literature from the Indian subcontinent. Students read major scriptural sources, including the Vedas and Upanishads. In our study of the epics (the Ramayana and the Mahabharata, including the Bhagavad Gita), we discuss translations from Sanskrit and popular retellings of these stories into other languages and media. We discuss the Puranas, reading the story of the warrior Goddess in the Devi Mahatmyam and investigate visual representations of gods and goddesses. We also sample Sanskrit classical poetry and devotional literature to the Goddess translated from Bengali. (Same as ASNS 2552)

REL 2228 c-IP. Militancy and Monasticism in South and Southeast Asia. Belinda Kong. Proxy Instructor Listed for Registration. Non-Standard Rotation. Fall 2019

Examines monastic communities throughout South and Southeast Asia and the ways they have been at the forefront of right-wing religious politics in the twentieth and twenty-first centuries. Across Asia, Hindu and Buddhist monks have been playing a political role that some consider contradictory to their spiritual image. Investigates how various monastic communities harness political power today as well as how different communities in early-modern Asia used their spiritual standing and alleged supernatural powers to influence emperors and kings. (Same as ASNS 2601)

REL 2229 c. Religion on the Move: Religion, Migration, and Mobilization. Proxy Instructor Listed for Registration. Elizabeth Pritchard. Non-Standard Rotation. Fall 2019

Contemporary migration and globalization patterns have transformed where and how religious traditions are practiced, radically altering the landscape of local religion around the world. While migration has been integral to the development of many religious traditions, this course considers the role of colonialism, transnational religious networks, and the global flows of people and ideas in the creation of new religious identities. Readings highlight debates about the relation of religion to gender, ethnicity, and nationality, including the global popularity of yoga, Hindu identity in diaspora, transnational networks of Islamic learning, and changing gender norms in Buddhist monasteries. Through historical primary sources and recent ethnographies, this course focuses on questions such as: How is religious identity transformed by migration? Do religious rituals change in diaspora? And what role does religion play in shaping trends of globalization? (Same as ASNS 2831)

REL 3390 c. Theories about Religion. Todd Berzon. Every Fall. Fall 2019

Seminar focusing on how religion has been explained and interpreted from a variety of intellectual and academic perspectives, from the sixteenth century to the present. In addition to a historical overview of religion's interpretation and explanation, also includes consideration of postmodern critiques and the problem of religion and violence in the contemporary world.

PREREQUISITE: REL 1101

Romance Languages and Lits

FRS 1101 c. Elementary French I. Hanetha Vete-Congolo. Every Fall. Fall 2019

A study of the basic forms, structures, and vocabulary in the context of the French-speaking world. Emphasis on the four communicative skills: reading, writing, listening, and speaking. Three class hours per week and one weekly conversation session with teaching assistants, plus regular language laboratory assignments. Primarily open to first- and second-year students.

FRS 2203 c. Intermediate French I. The Department. Every Fall. Fall 2019

Vocabulary development and review of basic grammar, which are integrated into more complex patterns of written and spoken French. Active use of French in class discussions and conversation sessions with French teaching fellows. Three class hours per week and one weekly conversation session.

PREREQUISITE: FREN 1102 or Placement in FRS 2203 or FRS 1102

FRS 2305 c-VPA. Advanced French through Film. The Department. Every Fall. Fall 2019

An introduction to film analysis. Conversation and composition based on a variety of contemporary films from French-speaking regions. Grammar review and frequent short papers. Emphasis on student participation including a variety of oral activities. Three hours per week plus regular viewing sessions for films and a weekly conversation session with French teaching fellows.

PREREQUISITE: FREN 2204 or Placement in FRS 2305 or FRS 2204

FRS 2409 c-ESD, IP. Spoken Word and Written Text. Charlotte Daniels. Every Semester. Fall 2019

Examines oral and written traditions of areas where French is spoken in Africa, the Caribbean, Europe, and North America from the Middle Ages to 1848. Through interdisciplinary units, students examine key moments in the history of the francophone world, drawing on folktales, epics, poetry, plays, short stories, essays, and novels. Explores questions of identity, race, colonization, and language in historical and ideological context. Taught in French. (Same as AFRS 2409, LAS 2209)

PREREQUISITE: FREN 2305 or higher or FRS 2305 or higher or Placement in FRS 2400 level

FRS 2410 c-ESD, IP. Literature, Power, and Resistance. Meryem Belkaid. Charlotte Daniels. Every Semester. Fall 2019

Examines questions of power and resistance as addressed in the literary production of the French-speaking world from the nineteenth through the twenty-first centuries. Examines how language and literature serve as tools for both oppression and liberation during periods of turmoil: political and social revolutions, colonization and decolonization, the first and second world wars. Authors may include Hugo, Sand, Sartre, Fanon, Senghor, Yacine, Beauvoir, Condé, Césaire, Djébar, Camus, Modiano, Perec, and Piketty. Students gain familiarity with a range of genres and artistic movements and explore the myriad ways that literature and language reinforce boundaries and register dissent. Taught in French. (Same as AFRS 2412, LAS 2210)

PREREQUISITE: FREN 2305 or higher or FRS 2305 or higher or Placement in FRS 2400 level

FRS 3213 c. Aesthetics in Africa and Europe. Hanetha Vete-Congolo. Non-Standard Rotation. Fall 2019

Aesthetics -- the critical reflection on art, taste, and culture; as much as beauty, the set of properties of an object that arouses pleasure--are central to all aspects of society-building and human life and relationships. Examines the notions of aesthetics and beauty, from pre-Colonial to contemporary times in cultures of the African and Western civilizations as expressed in various humanities and social sciences texts, as well as the arts, iconography, and the media. Considers the ways Africans and afro-descendants in the New World responded to the Western notions of aesthetics and beauty. Authors studied may include Anténor Firmin, Jean Price Mars, Senghor, Damas, Césaire, Cheick Anta Diop, Fanon, Glissant, Chamoiseau, Gyekye Kwame, Socrates, Plato, Jean-Baptiste du Bos, Diderot, Le père André, Baumgarten, Kant, Schopenhauer, Hegel, Hugo. (Same as AFRS 3213, LAS 3213)

PREREQUISITE: Two of: | either FRS 2409 (same as AFRS 2409 and LAS 2209) or FRS 2410 (same as AFRS 2412 and LAS 2210) or FRS 3000 or higher | and either FRS 2409 (same as AFRS 2409 and LAS 2209) or FRS 2410 (same as AFRS 2412 and LAS 2210) or FRS 3000 or higher

FRS 3222 c-ESD, IP. Texts Talking Back: French Canada Speaking to Itself and to the World through Literature. Ian MacDonald. Non-Standard Rotation. Fall 2019

Explores the ways in which authors refer to history, geography and most particularly to other literary texts in order to form a community of voices that constitutes a body of expression unique to Francophone Canada. The literature of French Canada evokes a history of displacements, conflicts, triumphs, oppressions and liberations that play out in relationship to Others to whom texts respond. We will read essays, novels, plays, and poems from Francophone Canada and familiarize ourselves with events, texts, and places that will help us deepen our understanding and appreciation of the literary traditions of Canada with an emphasis on Québécois and Acadian authors. Readings may include texts by Marie-Claire Blais, Roch Carrier, Herménégilde Chiasson, Evelyne de la Chenelière, Madeleine Gagnon, Claude Gauvreau, Anne Hébert, Dany Laferrière, Michèle Lalonde, Robert LePage, Antonine Maillet, Gaston Miron, Wajdi Mouawad, Émile Nelligan, Gabrielle Roy, and Michel Tremblay.

PREREQUISITE: Two of: | either FRS 2409 (same as AFRS 2409 and LAS 2209) or FRS 2410 (same as AFRS 2412 and LAS 2210) or FRS 3000 or higher | and either FRS 2409 (same as AFRS 2409 and LAS 2209) or FRS 2410 (same as AFRS 2412 and LAS 2210) or FRS 3000 or higher

HISP 1101 c. Elementary Spanish I. Barbara Sawhill. Every Fall. Fall 2019

An introduction to the grammar of Spanish, aimed at comprehension, reading, writing, and simple conversation. Emphasis is on grammar structure, with frequent oral drills. Hispanic Studies 1101 is primarily open to first- and second-year students, with a limited number of spaces available for juniors and seniors who have had less than one year of high school Spanish.

HISP 1102 c. Elementary Spanish II. Julia Venegas. Non-Standard Rotation. Fall 2019

Three class hours per week and weekly conversation sessions with assistant, plus laboratory assignments. An introduction to the grammar of Spanish, aimed at comprehension, reading, writing, and simple conversation. More attention is paid to reading and writing.

PREREQUISITE: SPAN 1101 or Placement in HISP 1102 or HISP 1101

HISP 2203 c. Intermediate Spanish I. The Department. Every Semester. Fall 2019

Three class hours per week and one weekly conversation session with teaching assistant. Grammar fundamentals are reviewed. Class conversation and written assignments are based on readings in modern literature.

PREREQUISITE: SPAN 1102 or SPAN 1103 or Placement in HISP 2203 or HISP 1102 or HISP 1103

HISP 2204 c. Intermediate Spanish II. The Department. Every Semester. Fall 2019

Three class hours per week and one weekly conversation session with assistant. Grammar fundamentals are reviewed. Class conversation and written assignments are based on readings in modern literature.

PREREQUISITE: SPAN 2203 or Placement in HISP 2204 or HISP 2203

HISP 2305 c. Advanced Spanish. The Department. Every Semester. Fall 2019

The study of topics in the political and cultural history of the Spanish-speaking world in the twentieth century, together with an advanced grammar review. Covers a variety of texts and media and is designed to increase written and oral proficiency, as well as appreciation of the intellectual and artistic traditions of Spain and Latin America. Foundational course for the major. Three class hours per week and one weekly conversation session with assistant. (Same as LAS 2205)

PREREQUISITE: SPAN 2204 or HISP 2204 or Placement in HISP 2305

HISP 2409 c-IP. Introduction to Hispanic Studies: Poetry and Theater. Gustavo Faveron Patriau. Every Semester. Fall 2019

A chronological introduction to the cultural production of the Spanish-speaking world from pre-Columbian times to the present, with particular emphasis on the analysis of poetry and theater. Examines major literary works and movements in their historical and cultural context. Conducted in Spanish. (Same as LAS 2409)

PREREQUISITE: HISP 2305 (same as LAS 2205) or SPAN 2305 (same as LAS 2205) or LAS 2205 or Placement in HISP 2409 or 2410

HISP 2410 c-IP. Introduction to Hispanic Studies: Essay and Narrative. The Department. Every Semester. Fall 2019

A chronological introduction to the cultural production of the Spanish-speaking world from pre-Columbian times to the present, with particular emphasis on the analysis of essay and narrative. Examines major literary works and movements in their historical and cultural context. (Same as LAS 2410)

PREREQUISITE: HISP 2305 (same as LAS 2205) or SPAN 2305 (same as LAS 2205) or LAS 2205 or Placement in HISP 2409 or 2410

HISP 3218 c. A Journey around Macondo: Garcia Marquez and His Contemporaries. Nadia Celis. Non-Standard Rotation. Fall 2019

Studies the main topics, techniques, and contributions of Colombian Nobel Prize winner Gabriel García Márquez as presented in “One Hundred Years of Solitude.” Explores the actual locations and the social, cultural, and literary trends that inspired the creation of Macondo, the so-called village of the world where the novel takes place, and the universal themes to which this imaginary town relates. Contemporary authors include Fuenmayor, Rojas Herazo, and Cepeda Samudio . (Same as LAS 3218)

PREREQUISITE: Two of: | | either SPAN 2409 (same as LAS 2409) or SPAN 3200 or higher or SPAN 2410 (same as LAS 2410) or either HISP 2409 (same as LAS 2409) or HISP 2410 (same as LAS 2410) or HISP 3200 or higher | | and either SPAN 2409 (same as LAS 2409) or SPAN 3200 or higher or SPAN 2410 (same as LAS 2410) or either HISP 2409 (same as LAS 2409) or HISP 2410 (same as LAS 2410) or HISP 3200 or higher

HISP 3223 c. The War of the (Latin American) Worlds. Carolyn Wolfenzon Niego. Non-Standard Rotation. Fall 2019

Discusses the historical, social, and political consequences of the clash between tradition and modernity in Latin America during the nineteenth and twentieth centuries as seen through novels, short stories, and film. Particular attention will be given to the ways in which the processes of modernization have caused the coexistence of divergent worlds within Latin American countries. Analyzes different social and political reactions to these conflictive realities, focusing on four cases: the Mexican Revolution, the Cuban Revolution, the dictatorship of Augusto Pinochet in Chile, and Andean insurgencies in Perú. Authors to be read may include Reinaldo Arenas, Roberto Bolaño, Simón Bolívar, Jorge Luis Borges, Cromwell Jara, Mario Vargas Llosa, Gabriel García Márquez, José Martí, Elena Poniatowska, and Juan Rulfo, among others. (Same as LAS 3223)

PREREQUISITE: Two of: | | either SPAN 2409 (same as LAS 2409) or SPAN 3200 or higher or SPAN 2410 (same as LAS 2410) or either HISP 2409 (same as LAS 2409) or HISP 2410 (same as LAS 2410) or HISP 3200 or higher | | and either SPAN 2409 (same as LAS 2409) or SPAN 3200 or higher or SPAN 2410 (same as LAS 2410) or either HISP 2409 (same as LAS 2409) or HISP 2410 (same as LAS 2410) or HISP 3200 or higher

HISP 3224 c. Modern Spanish Theater in Context. Elena Cueto Asin. Non-Standard Rotation. Fall 2019

Studies plays by Spanish authors from the twentieth and twenty-first centuries in light of the broader cultural, social, and political context in which they are produced, read, and performed. Theatrical texts are analyzed as a product of historical as well as aesthetic changes, and in relation to other literary and cultural productions (film, journalism, narrative, poetry and the visual arts). Conducted in Spanish.

PREREQUISITE: Two of: | | either SPAN 2409 (same as LAS 2409) or SPAN 3200 or higher or SPAN 2410 (same as LAS 2410) or either HISP 2409 (same as LAS 2409) or HISP 2410 (same as LAS 2410) or HISP 3200 or higher | | and either SPAN 2409 (same as LAS 2409) or SPAN 3200 or higher or SPAN 2410 (same as LAS 2410) or either HISP 2409 (same as LAS 2409) or HISP 2410 (same as LAS 2410) or HISP 3200 or higher

HISP 3237 c. Hispanic Short Story. Gustavo Faveron Patriau. Non-Standard Rotation. Fall 2019

An investigation of the short story as a literary genre, beginning in the nineteenth century, involving discussion of its aesthetics, as well as its political, social, and cultural ramifications in the Spanish-speaking world. Authors include Pardo Bazán, Borges, Cortázar, Echevarría, Ferré, García Márquez, and others. (Same as LAS 3237)

PREREQUISITE: Two of: | | either SPAN 2409 (same as LAS 2409) or SPAN 3200 or higher or SPAN 2410 (same as LAS 2410) or either HISP 2409 (same as LAS 2409) or HISP 2410 (same as LAS 2410) or HISP 3200 or higher | | and either SPAN 2409 (same as LAS 2409) or SPAN 3200 or higher or SPAN 2410 (same as LAS 2410) or either HISP 2409 (same as LAS 2409) or HISP 2410 (same as LAS 2410) or HISP 3200 or higher

ITAL 1101 c. Elementary Italian I. The Department. Every Fall. Fall 2019

Three class hours per week, plus weekly drill sessions and language laboratory assignments. Study of the basic forms, structures, and vocabulary. Emphasis is on listening comprehension and spoken Italian.

ITAL 2203 c. Intermediate Italian I. The Department. Every Fall. Fall 2019

Three class hours per week and one weekly conversation session with assistant. Aims to increase fluency in both spoken and written Italian. Grammar fundamentals are reviewed. Class conversation and written assignments are based on contemporary texts of literary and social interest.

PREREQUISITE: ITAL 1102 or ITAL 1103 or Placement in ITAL 2203

ITAL 2305 c. Advanced Italian I. Arielle Saiber. Every Fall. Fall 2019

Strengthens fluency in reading, writing, and speaking through an introduction to contemporary Italian society and culture. An advanced grammar review is paired with a variety of journalistic and literary texts, visual media, and a novel. Conducted in Italian.

PREREQUISITE: ITAL 2204 or Placement in ITAL 2305

ITAL 3020 c-IP. Dante's "Commedia". Arielle Saiber. Every Other Fall. Fall 2019

One of the greatest works of literature of all times. Dante's "Divine Comedy" leads the reader through the torture-pits of hell, up the steep mountain of purgatory, to the virtual, white-on-white zone of paradise, and then back to where we began: our own earthly lives. Accompanies Dante on his allegorical journey, armed with knowledge of Italian culture, philosophy, politics, religion, and history. Pieces together a mosaic of medieval Italy, while developing and refining abilities to read, analyze, interpret, discuss, and write about both literary texts and critical essays. Conducted in Italian.

PREREQUISITE: ITAL 2408

Russian

RUS 1101 c. Elementary Russian I. Alyssa Gillespie. Every Fall. Fall 2019

Introduction to the Cyrillic writing system and to the fundamentals of the Russian language. Emphasis on the gradual acquisition of active language skills: speaking, understanding, reading and writing. Students will learn to introduce family members and explain what they do for a living; describe their room, possessions, city, and culinary preferences; discuss their daily activities and travels; talk about their studies and what languages they speak; ask simple questions, voice opinions, make invitations, and engage in basic everyday conversations. Authentic multimedia cultural materials (cartoons, songs, poems, videos) supplement the textbook and serve as a window onto the vibrant reality of Russian culture today. Conversation hour with native speaker.

RUS 2203 c. Intermediate Russian I. Proxy Instructor Listed for Registration. Alyssa Gillespie. Every Fall. Fall 2019

Continuation of Elementary Russian. Emphasis on the continuing acquisition of active language skills: speaking, understanding, reading and writing. Students will improve their facility in speaking and understanding normal conversational Russian and will read increasingly sophisticated texts on a variety of topics. Authentic multimedia cultural materials (cartoons, songs, poems, videos, websites, short stories, newspaper articles) supplement the textbook and serve as a window onto the vibrant reality of Russian culture today. Conversation hour with native speaker.

PREREQUISITE: RUS 1102

RUS 2315 c-IP. Love, Sex, and Desire in Russian Literature and Culture. Proxy Instructor Listed for Registration. Alyssa Gillespie. Non-Standard Rotation. Fall 2019

Russian culture is rich with depictions of the fundamental human experiences of love, sex, and desire. And while these depictions have often been subject to various forms of censorship, they have just as often served as expressions of dissent against rigid social, political, and artistic norms. This course explores the ideological and aesthetic significance of such themes as romance, lust, yearning, sexual violence, adultery, religious passion, poetic inspiration, unrequited love, celibacy, gender identity, sexuality, masturbation, pornography, body image, sexual frustration, castration, and witchcraft in Russian literature and the arts from medieval times to the present day. Not only do the works studied inscribe “difference” on the bodies of their subjects, but Russia also functions as a social “other” against which students examine their own cultural assumptions. Authors include Avvakum, Bulgakov, Chekhov, Dostoevsky, Gogol, Nabokov, Pushkin, Tolstoy, Tsvetaeva, Turgenev, and Zamyatin. Taught in English. (Same as GSWS 2315)

RUS 3201 c-IP. Pushkin. Alyssa Gillespie. Non-Standard Rotation. Fall 2019

Introduction to the lyric verse, narrative poetry, drama, fairytales, and prose of Alexander Pushkin, the “father of Russian literature.” Students will gain an appreciation for Pushkin's extraordinary literary imagination and innovativeness, and for the complexity that underlies the seeming simplicity of his works. Attention to Pushkin's evolving understanding of his role as Russia's national poet, including such themes as the beauty of the Russian countryside, the poet's sacred calling, political repression and the dream of civic freedom, the dialectic between chance and fate, St. Petersburg and the specter of revolution, poet as historian, inspiration and eroticism, poet vs. tsar, and the subversive power of art. All primary texts, discussions, and presentations and most writing assignments will be in Russian. Emphasis on learning to read and appreciate complex literary texts, vocabulary development, and the ability to articulate sophisticated arguments in both oral and written Russian.

PREREQUISITE: RUS 3406

RUS 3405 c-IP. Advanced Russian I. Proxy Instructor Listed for Registration. Alyssa Gillespie. Every Fall. Fall 2019

Continuation of Intermediate Russian. Emphasis on the equal importance of speaking, understanding, reading, and writing for free and expressive communication in the Russian language. Course materials focus on topics in Russian literature, history, film, or culture to provide a broad conceptual base for students to practice and refine their language skills, improve their mastery of advanced grammar concepts, and expand their vocabulary. Course requirements include grammar practice, oral presentations, participation in class discussions, written compositions, and written and oral quizzes and tests. Conversation hour with native speaker.

PREREQUISITE: RUS 2204

Theater and Dance

DANC 1101 c-VPA. Making Dances. Proxy Instructor Listed for Registration. Aretha Aoki. Every Year. Fall 2019

Explores movement invention, organization, and meaning. Problem-solving exercises, improvisations, and studies focus mainly on solo, duet, and trio forms. A video component introduces students -- regardless of previous experience in dance -- to a wide range of compositional methods and purposes. Includes reading, writing, discussion, attendance at live performances, and -- when possible -- work with visiting professional artists.

DANC 1203 c-VPA. Performance and Narrative. Proxy Instructor Listed for Registration. Abigail Killeen. Every Other Year. Fall 2019

For millennia, we have organized our fictions, our religions, our histories, and our own lives as narratives. However much the narrative form has been called into question in recent years, it seems we just cannot stop telling each other stories. Examines the particular nexus between narrative and performance: What is narrative? How does it work? What are its limits and its limitations? How do we communicate narrative in performance? Involves both critical inquiry and the creation of performance pieces based in text, dance, movement, and the visual image. (Same as THTR 1203)

DANC 1211 c-VPA. Introduction to Modern Dance. Gwyneth Jones. Every Semester. Fall 2019

This studio-based course is designed for students with little or no previous modern dance experience. Students work on technique, improvisation, and dance invention, as well as developing an overview of twentieth-century American modern and postmodern dance through watching and discussing videos and live performances. Students generate original movement and learn set material from the instructor to create an original group piece to perform in an end of semester dance performance. Attendance at all classes, rehearsals, and performances is required. May be repeated for credit.

DANC 1213 c-ESD, VPA. Introduction to Caribbean Dances and Cultures. Adanna Jones. Non-Standard Rotation. Fall 2019

From the folkloric dance forms to popular and secular dance practices, this course journeys through various islands and countries of the Caribbean to learn about their various histories and cultures, including the music, costumes, and basic rhythms, associated with each particular dance form. This in-studio course provides a general introduction to some of the sacred and popular dances of the Caribbean. Although movement is the primary work of this course, what we learn in class may be supplemented by readings and outside research. Please note that no prior experience or training is required. Grading will not be based on technical skill levels, but on mindful, full-bodied participation that demonstrates comprehension and articulation of course materials.
(Same as AFRS 1213)

DANC 1301 c. Stagecraft. Proxy Instructor Listed for Registration. Abigail Killeen. Discontinued Course. Fall 2019

Introduction to the language, theory, and practice of theater and dance technology. Students explore the history of theater technology with experiential projects in Bowdoin's performance venues, including Pickard and Wish Theaters as well as visits and workshops from guest artists. Topics include lighting, scenography, costuming, and sound, among others. The course considers the possibilities, demands, and limits inherent to different forms of performance and space. Lab required. Course fulfills the Technical Production (THTR/DANC 1750) requirement for Performance Arts major. (Same as THTR 1301)

DANC 1302 c-VPA. Principles of Design. Judy Gailen. Every Fall. Fall 2019

An introduction to theatrical design that stimulates students to consider the world of a play, dance, or performance piece from a designer's perspective. Through projects, readings, discussion, and critiques, explores the fundamental principles of visual design as they apply to set, lighting, and costume design, as well as text analysis for the designer and the process of collaboration. Strong emphasis on perceptual, analytical, and communication skills. (Same as THTR 1302)

DANC 1750 c. Technical Production. Abigail Killeen. Every Semester. Fall 2019

Exposes performance arts students to the technical production process for theater and dance performance and serves as a complementary course to Theater 1700: Performance in Production (.5 credit). Students observe and engage with several areas of production through supervised participation in one departmental production, either theater or dance. Students are introduced to all dimensions of technical production, including lighting, set, sound, media, costume design and creation, stage management, and technical direction, among others. Following this overview, students serve as production assistants for a specific production. They attend regular rehearsals and participate in the collaborative creation process. Tasks may also include dramaturgical research, assistant directing, and other support as determined to best benefit the student and their specific goals. Students are very much a part of the production team and are expected to follow professional codes of conduct within the production. The course may be taken on any show, but students in 1750 may not perform in the show associated with the course. This course requirement may be waived by students who are either already engaged in work study in the department, or the requirement can be met by students through an approved and supervised independent study (Theater or Dance 2970/4000) in an area of technical production or design. Because of the limited resources available, this course is available to majors only. Not open to students with credit for Theater 1301/Dance 1301 (Stagecraft). (Same as THTR 1750)

DANC 2204 c-VPA. Intermediate Improvisation and Partnering. Proxy Instructor Listed for Registration. Aretha Aoki. Non-Standard Rotation. Fall 2019

This course is a continuation of principles explored in DANC 1104 Improvisation, with the addition of techniques and skills for dancing in physical contact. Emphasis is on the partnering duet form, contact improvisation: rolling, how to fall and land softly, how to give and receive weight, how to move with an awareness of sensation. The class is studio focused and will include readings, in-class discussions and watching live and recorded dancing.

PREREQUISITE: DANC 1101 or DANC 1102 (same as GSWS 1102) or DANC 1104 or DANC 1211 or DANC 1212

DANC 2205 c-VPA. Musical Theater Performance. Davis Robinson. Every Other Fall. Fall 2019

Musical Theater is a popular performance form that challenges students to work in multiple disciplines, combining dance, acting, music, and design. This course will give students with experience in acting, singing and dancing an opportunity to hone their skills together through the performance of songs and scenes from a variety of musical theater styles. Students will do projects in ballad singing, choral numbers, group dances, and acting the song. Actors, singers, choreographers, and musicians will be encouraged to work together in class and in evening rehearsals towards a public performance on Parents Weekend and a cabaret performance at the end of the semester. Performances will be grounded in historical readings and research that contextualizes the origins of the pieces being performed. (Same as THTR 2205)

PREREQUISITE: THTR 1100 - 1799 or DANC 1100 - 1799

DANC 2241 c-ESD, VPA. Afro-Modern II: Technique. Adanna Jones. Every Other Year. Fall 2019

A continuation of modern dance principles introduced in Dance 1211 with the addition of African-derived dance movement. The two dance aesthetics are combined to create a new form. Technique classes include center floor exercises, movement combinations across the floor, and movement phrases. Students also attend dance performances in the community. (Same as AFRS 2236)

DANC 3211 c-VPA. Advanced Modern Dance. Gwyneth Jones. Non-Standard Rotation. Fall 2019

An advanced level dance technique class. Students are expected to have prior training and/or have received full credit in Modern II. The course is a continuation of the processes of 2211, with more challenging and complex phrase-work and more in-depth physical explorations. In addition, the course will emphasize artistry and performance. Partnering/hands-on work may be included.

PREREQUISITE: DANC 2211

DANC 3502 c-VPA. Performance in the Twenty-First Century. Proxy Instructor Listed for Registration. Abigail Killeen. Non-Standard Rotation. Fall 2019

Examines contemporary forms such as live art, neo-cabaret, dance theater, theater of images, new circus, solo performance, site-specific theater. Hybrid by nature and rebellious in spirit, these practices reject the boundaries and conventions of traditional theater and dance. Yet for all its innovation, contemporary performance has roots deep in the twenty-first-century avant-garde. What, these days, is new about performance? Through readings, film screenings, and our own performance making, considers the genealogical roots of performance and investigates the ways twenty-first-century performance explores body, mind, technology, social justice, intercultural and transnational aesthetics, and globalism. Assignments include readings, research presentations, written responses, and short-form performance projects. (Same as THTR 3502)

PREREQUISITE: Two of: || either THTR 1501 - 1599 or either DANC 1501 - 1599 or THTR 2500 - 2599 or DANC 2500 - 2599 || and THTR 2000 - 2969 or DANC 2000 - 2969

DANC 4040 c. Studio. Abigail Killeen. Every Spring. Fall 2019

An advanced performance-based studio course in which students develop an original project in their chosen performance area: e.g., acting, choreography, dance, design, directing, dramaturgy and criticism, or playwriting, among others. The course meets regularly as a group to critique, discuss, and present their work and may include guest artists and travel to attend productions in Portland and Boston, as available. This is the first half of a two-semester sequence with THTR/DANC 4041 to be taken in the spring when projects are presented. Students are expected to take both semesters for the major. Required for all Performance Arts majors; Theater and Dance minors and other majors may be admitted by permission of instructor. (Same as THTR 4040)

THTR 1201 c-VPA. Acting I. Abigail Killeen. Every Semester. Fall 2019

Introduces the intellectual, vocal, physical, and emotional challenge of the acting process. Students examine theatrical texts and practice the art of translating intellectual analysis into embodied performance. Fundamentals of text analysis are learned and practiced, preparing students for the more complex performance work required in all sections of Acting II.

THTR 1203 c-VPA. Performance and Narrative. Proxy Instructor Listed for Registration. Abigail Killeen. Every Other Year. Fall 2019

For millennia, we have organized our fictions, our religions, our histories, and our own lives as narratives. However much the narrative form has been called into question in recent years, it seems we just cannot stop telling each other stories. Examines the particular nexus between narrative and performance: What is narrative? How does it work? What are its limits and its limitations? How do we communicate narrative in performance? Involves both critical inquiry and the creation of performance pieces based in text, dance, movement, and the visual image. (Same as DANC 1203)

THTR 1301 c. Stagecraft. Proxy Instructor Listed for Registration. Abigail Killeen. Discontinued Course. Fall 2019

Introduction to the language, theory, and practice of theater and dance technology. Students explore the history of theater technology with experiential projects in Bowdoin's performance venues, including Pickard and Wish Theaters as well as visits and workshops from guest artists. Topics include lighting, scenography, costuming, and sound, among others. The course considers the possibilities, demands, and limits inherent to different forms of performance and space. Lab required. Course fulfills the Technical Production (THTR/DANC 1750) requirement for Performance Arts major. (Same as DANC 1301)

THTR 1302 c-VPA. Principles of Design. Judy Gailen. Every Fall. Fall 2019

An introduction to theatrical design that stimulates students to consider the world of a play, dance, or performance piece from a designer's perspective. Through projects, readings, discussion, and critiques, explores the fundamental principles of visual design as they apply to set, lighting, and costume design, as well as text analysis for the designer and the process of collaboration. Strong emphasis on perceptual, analytical, and communication skills. (Same as DANC 1302)

THTR 1700 c-VPA. Performance in Production. Davis Robinson. Every Semester. Fall 2019

The collaborative performance of a full-length work with a professional director either on faculty or visiting as a guest artist. The production is produced by the Department and performed for the public. Areas of concentration include rehearsal and performance of roles as part of a fully-produced production with a creative team over approximately 120 concentrated hours through the Fall or Spring semesters. Students gain admission to Theater 1700 through audition. Rehearsals may fall outside of traditional class hours. Grading is Credit/D/Fail. One-half credit. May be repeated a maximum of four times for credit, earning a maximum of two credits.

THTR 1750 c. Technical Production. Abigail Killeen. Every Semester. Fall 2019

Exposes performance arts students to the technical production process for theater and dance performance and serves as a complementary course to Theater 1700: Performance in Production (.5 credit). Students observe and engage with several areas of production through supervised participation in one departmental production, either theater or dance. Students are introduced to all dimensions of technical production, including lighting, set, sound, media, costume design and creation, stage management, and technical direction, among others. Following this overview, students serve as production assistants for a specific production. They attend regular rehearsals and participate in the collaborative creation process. Tasks may also include dramaturgical research, assistant directing, and other support as determined to best benefit the student and their specific goals. Students are very much a part of the production team and are expected to follow professional codes of conduct within the production. The course may be taken on any show, but students in 1750 may not perform in the show associated with the course. This course requirement may be waived by students who are either already engaged in work study in the department, or the requirement can be met by students through an approved and supervised independent study (Theater or Dance 2970/4000) in an area of technical production or design. Because of the limited resources available, this course is available to majors only. Not open to students with credit for Theater 1301/Dance 1301 (Stagecraft). (Same as DANC 1750)

THTR 2203 c-VPA. Directing. Davis Robinson. Every Other Year. Fall 2019

Introduces students to the major principles of play direction, including conceiving a production, script analysis, staging, casting, and rehearsing with actors. Students actively engage directing theories and techniques through collaborative class projects and complete the course by conceiving, casting, rehearsing, and presenting short plays of their choosing. A final research and rehearsal portfolio is required.

THTR 2205 c-VPA. Musical Theater Performance. Davis Robinson. Every Other Fall. Fall 2019

Musical Theater is a popular performance form that challenges students to work in multiple disciplines, combining dance, acting, music, and design. This course will give students with experience in acting, singing and dancing an opportunity to hone their skills together through the performance of songs and scenes from a variety of musical theater styles. Students will do projects in ballad singing, choral numbers, group dances, and acting the song. Actors, singers, choreographers, and musicians will be encouraged to work together in class and in evening rehearsals towards a public performance on Parents Weekend and a cabaret performance at the end of the semester. Performances will be grounded in historical readings and research that contextualizes the origins of the pieces being performed. (Same as DANC 2205)

PREREQUISITE: THTR 1100 - 1799 or DANC 1100 - 1799

THTR 2302 c-ESD, VPA. From Claudio Monteverdi to Lin-Manuel Miranda: Issues at the Intersection of Music and Theater. Proxy Instructor Listed for Registration. Vineet Shende. Every Other Year. Fall 2019

Students will explore a wide variety of stage music genres from the invention of opera in seventeenth-century northern Italy to the most recent Broadway productions (i.e. Monteverdi, Lully, Hidalgo, Mozart, Wagner, minstrelsy and vaudeville, Gershwin, Bernstein, Sondheim, Schwartz, Reich, Adams, Lin Manuel Miranda). Students will become familiar with historical conventions, terminology, genres, styles, and processes of expression, including adaptations, staging, and production design. We will also discuss issues on gender, representation, violence, identity, politics, economics, aesthetics, and marketing. (Same as MUS 2302)

PREREQUISITE: MUS 1100 - 1699 or MUS 2100 - 2699 or MUS 3100 - 3699

THTR 3502 c-VPA. Performance in the Twenty-First Century. Proxy Instructor Listed for Registration. Abigail Killeen. Non-Standard Rotation. Fall 2019

Examines contemporary forms such as live art, neo-cabaret, dance theater, theater of images, new circus, solo performance, site-specific theater. Hybrid by nature and rebellious in spirit, these practices reject the boundaries and conventions of traditional theater and dance. Yet for all its innovation, contemporary performance has roots deep in the twenty-first-century avant-garde. What, these days, is new about performance? Through readings, film screenings, and our own performance making, considers the genealogical roots of performance and investigates the ways twenty-first-century performance explores body, mind, technology, social justice, intercultural and transnational aesthetics, and globalism. Assignments include readings, research presentations, written responses, and short-form performance projects. (Same as DANC 3502)

PREREQUISITE: Two of: | either THTR 1501 - 1599 or either DANC 1501 - 1599 or THTR 2500 - 2599 or DANC 2500 - 2599 | and THTR 2000 - 2969 or DANC 2000 - 2969

THTR 4040 c. Studio. Abigail Killeen. Every Spring. Fall 2019

An advanced performance-based studio course in which students develop an original project in their chosen performance area: e.g., acting, choreography, dance, design, directing, dramaturgy and criticism, or playwriting, among others. The course meets regularly as a group to critique, discuss, and present their work and may include guest artists and travel to attend productions in Portland and Boston, as available. This is the first half of a two-semester sequence with THTR/DANC 4041 to be taken in the spring when projects are presented. Students are expected to take both semesters for the major. Required for all Performance Arts majors; Theater and Dance minors and other majors may be admitted by permission of instructor. (Same as DANC 4040)

Independent Studies and Honors Projects

Bowdoin Course Guide Appendix A: Independent Studies and Honors Projects

The chart below depicts the levels of independent studies available in different departments and programs. An “X” indicates that the level/number(s) notated in the column headers is available for the corresponding subject. A “-“ indicates that the level/number(s) is not available for that subject. Some subjects delineate their independent studies and honors projects by areas of focus; those are explained beneath the chart.

	Intermediate Independent Study, 2970-2973	Intermediate Collaborative Study, 2999	Advanced Independent Study, 4000-4003	Advanced Collaborative Study, 4029	Honors Project, 4050-4051
Africana Studies	X	X	X	X	X
Anthropology	X	X	X	X	X
Arabic	X	X	X	X	-
Archaeology	X	X	X	X	X
Art History	X	X	X	X	X
Asian Studies	X	X	X	X	X
Biochemistry	X	X	X	X	X
Biology	X	X	X	X	X
Chemistry	X	X	X	X	X
Chinese	-	-	X	X	-
Cinema Studies	X	X	X	X	-
Classics	X	X	X	X	X
Computer Science	X	X	X	X	X
Dance	X	X	X	X	-
Digital & Computational Studies	X	X	X	X	-
Earth & Oceanographic Science	Please see below for details				
Economics	X	X	X	X	X
Education	X	X	X	X	-
English	X	X	X	X	X
Environmental Studies	X	X	X	X	X
French/Francophone Studies	-	-	X	X	X
Gay & Lesbian Studies	X	X	-	-	-
Gender & Women’s Studies	X	X	X	X	X
German	X	X	X	X	X
Government & Legal Studies	Please see below for details				
Greek	X	X	X	X	X
History	Please see below for details				
Italian/Italian Studies	-	-	X	X	-
Japanese	-	-	X	X	-
Latin	X	X	X	X	X
Latin American Studies	X	-	X	X	X
Mathematics	X	X	X	X	X
Music	X	X	X	X	X
Neuroscience	X	X	X	X	X
Philosophy	X	X	X	X	X
Physics	X	X	X	X	X
Psychology	X	X	X	X	X
Religion	X	X	X	X	X
Russian	X	X	X	X	X
Sociology	X	X	X	X	X
Spanish/Hispanic Studies	-	-	X	X	X
Theater	X	X	X	X	-
Visual Arts	X	-	-	-	-

Bowdoin Course Guide Appendix A: Independent Studies and Honors Projects

The chart below depicts the levels of independent studies available in different departments and programs. An “X” indicates that the level/number(s) notated in the column headers is available for the corresponding subject. A “-“ indicates that the level/number(s) is not available for that subject. Some subjects delineate their independent studies and honors projects by areas of focus; those are explained beneath the chart.

Earth & Oceanographic Science

EOS 2970-2973, Intermediate Independent Study *in Solid Earth*
EOS 2974-2977, Intermediate Independent Study *in Surface Processes*
EOS 2978-2981, Intermediate Independent Study *in Oceanography*
EOS 2983-2985, Intermediate Independent Study, *Interdisciplinary*
EOS 2999, Intermediate Collaborative Study
EOS 4000-4003, Advanced Independent Study *in Solid Earth*
EOS 4004-4007, Advanced Independent Study *in Surface Processes*
EOS 4008-4011, Advanced Independent Study *in Oceanography*
EOS 4012-4015, Advanced Independent Study, *Interdisciplinary*
EOS 4029, Advanced Collaborative Study
EOS 4050-4051, Honors Project *in Solid Earth*
EOS 4052-4053, Honors Project *in Surface Processes*
EOS 4054-4055, Honors Project *in Oceanography*

Government & Legal Studies

GOV 2970-2974, Intermediate Independent Study *in American Politics*
GOV 2975-2979, Intermediate Independent Study *in Political Theory*
GOV 2980-2984, Intermediate Independent Study *in Comparative Politics*
GOV 2985-2989, Intermediate Independent Study *in International Relations*
GOV 2999, Intermediate Collaborative Study
GOV 4000-4004, Advanced Independent Study *in American Politics*
GOV 4005-4009, Advanced Independent Study *in Political Theory*
GOV 4010-4014, Advanced Independent Study *in Comparative Politics*
GOV 4015-4019, Advanced Independent Study *in International Relations*
GOV 4029, Advanced Collaborative Study
GOV 4050-4051, Honors Project *in American Politics*
GOV 4055-4056, Honors Project *in Political Theory*
GOV 4060-4061, Honors Project *in Comparative Politics*
GOV 4065-4066, Honors Project *in International Relations*

History

HIST 2970-2971, Intermediate Independent Study *in Europe*
HIST 2972-2973, Intermediate Independent Study *in United States*
HIST 2974-2975, Intermediate Independent Study *in Africa*
HIST 2976-2977, Intermediate Independent Study *in East Asia*
HIST 2978-2979, Intermediate Independent Study *in Latin America*
HIST 2980-2981, Intermediate Independent Study *in South Asia*
HIST 2982-2983, Intermediate Independent Study *in Atlantic Worlds*
HIST 2984-2985, Intermediate Independent Study *in Colonial Worlds*
HIST 2986-2998, Intermediate Independent Study
HIST 2999, Intermediate Collaborative Study
HIST 4000-4001, Advanced Independent Study *in Europe*
HIST 4002-4003, Advanced Independent Study *in United States*
HIST 4004-4005, Advanced Independent Study *in Africa*
HIST 4006-4007, Advanced Independent Study *in East Asia*
HIST 4008-4009, Advanced Independent Study *in Latin America*
HIST 4010-4011, Advanced Independent Study *in South Asia*
HIST 4012-4013, Advanced Independent Study *in Atlantic Worlds*
HIST 4014-4015, Advanced Independent Study *in Colonial Worlds*
HIST 4016-4028, Advanced Independent Study
HIST 4029, Advanced Collaborative Study
HIST 4050-4051, Honors Project *in Europe*
HIST 4052-4053, Honors Project *in United States*
HIST 4054-4055, Honors Project *in Africa*
HIST 4056-4057, Honors Project *in East Asia*
HIST 4058-4059, Honors Project *in Latin America*
HIST 4060-4061, Honors Project *in South Asia*
HIST 4062-4063, Honors Project *in Atlantic Worlds*
HIST 4064-4065, Honors Project *in Colonial Worlds*
HIST 4066-4079, Honors Project