**Fall 2019 Course Offerings:**

**ERC General Education Requirements**

*Be sure that you do not repeat a course you already have credit for!*

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**FINE ARTS**

**MUS 1A. Fundamentals of Music A (4)**
Primarily intended for students without previous musical experience. It introduces music notation and basic music theory topics such as intervals, scales, keys, and chords, as well as basic rhythm skills. **Prerequisites:** none.

**MUS 2A. Basic Musicianship (4)**
Primarily intended for music majors. Development of basic skills: perception and notation of pitch and temporal relationships. Introduction to functional harmony. Studies in melodic writing. Drills in sight singing, rhythmic reading, and dictation. **Prerequisites:** passing score on proficiency exam. Must be taken in sequence. Music majors must be concurrently enrolled in Music 2AK (Basic Keyboard).

**MUS 4. Introduction to Western Music (4)**
A brief survey of the history of Western Music from the Middle Ages to the present. Much attention will be paid to the direct experience of listening to music and attendance of concerts. Class consists of lectures, listening labs, and live performances. **Prerequisites:** none.

Exploration of the interactions among music, science, and technology, including the history and current development of science and technology from the perspective of music. **Prerequisites:** none.

**MUS 8. American Music: Jazz Cultures (4)**
Jazz is one of the primary foundations for American music in the twentieth and twenty-first centuries. This course highlights the multicultural and international scope of jazz by taking a thematic rather than a chronological approach to the subject, and by highlighting the music and lives of a diverse array of jazz practitioners from around the country and around the world. Students may not receive credit for both MUS 8 and MUS 8GS. **Prerequisites:** none.

**MUS 13. Worlds of Music (4)**
Through surveying selected musical traditions and practices from around the world, this course explores the ways in which music both reflects and affects social, cultural, and ecological relationships. Specific case studies will be covered through lectures, films, and listening sessions. **Prerequisites:** none.

**MUS 15. Popular Music (4)**
A course on popular music from different time periods, covered through lectures, films, and listening sessions. May be repeated once for credit. **Prerequisites:** none.

**MUS 17. Hip-Hop (4)**
This class presents a broad chronological overview of the development of hip-hop as a musical form from the late 1970s through today. It examines the development of the style in relation to direct context and to earlier African-American musical and cultural forms, and considers the technological and legal issues that have impacted its development. The class is listening-intensive and students will be expected to know and recognize essential structures and production techniques. **Prerequisites:** none.

**MUS 101A. Music Theory and Practice I (4)**
Study of modal counterpart in the style of the sixteenth century. Two-voice species counterpoint studies. Analysis of music of the period. Musicianship studies: sight-singing, dictation, and keyboard skills. **Prerequisites:** MUS 2C and 2CK.

**MUS 103A. Seminar in Composition I (4)**
First part in composition course sequence. Individual projects will be reviewed in seminar. Techniques of instrumentation will be developed through examination of scores and creative application. Assignments will include short exercises and analysis, and final project for standard ensemble. **Prerequisites:** MUS 33C.

**MUS 106. Topics in Musical Analysis (4)**
Topics in musical analysis. Covers full range of musical repertoire 1900 to present, including music that does not depend on notation. May be taken for credit up to two times. **Prerequisites:** MUS 2C.

**MUS 120A. History of Music in Western Culture I (4)**
First part of intensive historical, analytical, and cultural-aesthetic examination of music in Western culture from the ninth through the twenty-first centuries. Considers both sacred and secular repertories, from Gregorian chant through early opera, c. 800–1600. **Prerequisites:** MUS 1C or 2C or passing grade on proficiency exam. Music majors should be enrolled concurrently in MUS 101A. Department stamp required for nonmajors.

This course will examine the development of the Blues from its roots in work-songs and the minstrel show to its flowering in the Mississippi Delta to the development of Urban Blues and the close relationship of the Blues with Jazz, Rhythm and Blues, and Rock and Roll. (Cross-listed with ETHN 178.) **Prerequisites:** none.

**MUS 137A. Jazz Theory and Improvisation (4)**
Study of jazz theory and improvisation, focused on fundamental rhythmic, harmonic, melodic, and formal aspects of modern jazz style. Application of theoretical knowledge to instruments and concepts will be reinforced through listening, transcription work, and composition and improvisation exercises. First course of a yearlong sequence. **Prerequisites:** MUS 2A-B-C, proficiency exam, or consent of instructor.

**MUS 131. Advanced Improvisation Performance (4/0)**
Master class instruction in advanced improvisation performance for declared majors and minors only or consent of instructor. Audition required at first class meeting. May be repeated six times for credit. **Prerequisites:** consent of instructor through audition. Department stamp required.

**MUS 151. Race, Culture, and Social Change (4)**
Aggrieved groups generate distinctive cultural expressions by turning negative ascription into positive affirmation and by transforming segregation into congregation. This course examines the role of cultural expressions in struggles for social change by these communities inside and outside the United States. (Cross-listed with ETHN 108.) **Prerequisites:** upper-division standing or consent of instructor.
FINE ARTS

MUS 171. Computer Music I (4)
(Formerly MUS 160.) A practical introduction to computer techniques for desktop audio editing, MIDI control, and real-time music algorithms using the MAX programming environment. Recommended preparation: completion of MUS 170. Prerequisites: none; restricted to music majors, ICAM-music and ICAM-visual arts majors and minors, or consent of instructor.

MUS 173. Electronic Music Production and Composition (4)
(Formerly MUS 162.) Creative music production using digital audio workstations (DAWs), emphasizing hands-on composition projects including tempo warping, beat and tonality matching, virtual drum kits, chord progressions, sound processing and effects, arrangement, and remixing in the context of both popular and experimental genres. Existing works are analyzed and dissected for aesthetic value and production technique. Prerequisites: none; restricted to music, ICAM-music, and ICAM-visual arts majors and minors, or consent of instructor.

MUS 174A. Audio/MIDI Studio Techniques I (4)
First class in a yearlong sequence. Surveys hardware and software resources in an advanced analog/digital and media studio. Required course for use of the studio. Topics include: electronic and computer music, digital and analog audio signal mixing and manipulation, studio devices, interfacing, compositional applications, MIDI synchronization, performance and student projects. 174A focuses on signals, mics, device-based recording, mixing, monitoring. Prerequisites: MUS 170; restricted to music, ICAM-music, and ICAM-visual arts majors and minors, or consent of instructor.

TDAC 1. Introduction to Acting (4)
A beginning course in the fundamentals of acting: establishing a working vocabulary and acquiring the basic skills of the acting process: Through exercises, compositions, and improvisations, the student actor explores the imagination as the actor’s primary resource, and the basic approach to text through action. Prerequisites: none.

TDAC 1. Introduction to Design for the Theatre (4)
A survey of contemporary and historical concepts and practices in the visual arts of the theatre; studies in text analysis, studio processes and technical production; elementary work in design criticism, scale model making, and costume design. A course serving as an introduction to theatre design and production. Prerequisites: none.

TDAC 1. Acting I (4)
Beginning workshop in the fundamentals of playwriting. Students discuss material from a workbook which elucidates the basic principles of playwriting, do exercises designed to help them put those principles into creative practice, and are guided through the various stages of the playwriting process which culminates with in-class readings of the short plays they have completed. Prerequisite: none.

TDAC 102. Acting II (4)
Further study in the application of the given circumstances to a text and the development of characterization. Prerequisites: TDAC 1 or consent of instructor.

TDAC 101. Acting I (4)
An introduction to fundamental concepts in drama and performance. Students will attend performances and learn about how the theatre functions as an art and as an industry in today's world. Prerequisites: none.

TDAC 106. Chekhov Acting (4)
Practical exercises, discussion, text analysis, and scene work on the writings of Anton Chekhov. Admission by audition/interview. Prerequisites: TDAC 102.

TDAC 108. Advanced Topics (4)
Advanced topics in acting, such as avant-garde drama, commedia, or Beckett, for students who possess basic acting techniques. May be taken for credit four times. Prerequisites: TDAC 102.

TDAC 131. Special Topics in Theatre Design (4)
A course designed to expose the theatre design students to a variety of specialized topics that will vary from quarter to quarter. May be taken for credit three times. Prerequisites: THDE or TDDE 1 or consent of instructor.

FINES ARTS

TDGE 10. Theatre and Film (4)
Theatre and Film analyzes the essential differences between theatrical and cinematic approaches to drama. Through selected play/film combinations, the course looks at how the director uses actors and the visual languages of the stage and screen to guide and stimulate the audience’s responses. Prerequisites: none.

TDGE 11. Great Performances on Film (4)
Course examines major accomplishments in screen acting from the work of actors in films or in film genres. May be taken for credit three times. Prerequisites: none.

TDGE 25. Public Speaking (4)
This course is designed to establish a clear understanding of the fundamentals of effective oral communication. The methodologies explore the integration of relaxation, concentration, organization, and clear voice and diction as applied to various public speaking modes. Prerequisites: none.

TDHT 10. Introduction to Play Analysis (4)
An introduction to the fundamental techniques of analyzing dramatic texts. Focus is on the student’s ability to describe textual elements and their relationships to each other as well as on strategies for writing critically about drama. Prerequisites: none.

TDHT 21. Ancient and Medieval Theatre (4)
This course explores the roots of contemporary theater in the world performance traditions of ancient history with a focus on humans’ gravitation toward ritual and play. Examples come from Egypt, Greece, Rome, Mesoamerica, Japan, China, India, Indonesia, Persia, and England. Prerequisite: none.

TDPW 1. Introduction to Playwriting (4)
Beginning workshop in the fundamentals of playwriting. Students discuss material from a workbook which elucidates the basic principles of playwriting, do exercises designed to help them put those principles into creative practice, and are guided through the various stages of the playwriting process which culminates with in-class readings of the short plays they have completed. Prerequisite: none.

THDE or TDDE 1 or consent of instructor.
TDDR 101. Stage Management (4)
Discussion and research into the duties, responsibilities, and roles of a stage manager. Work to include studies in script analysis, communication, rehearsal procedures, performance skills, and style and conceptual approach to theatre. THGE or TDGE 1, THAC or TDAC 1, and THDE or TDDE 1 recommended.

TDDR 111. Directing-Acting Process (4)
A studio class that investigates the fundamental skills a director needs to work with actors. Working with actors, students learn how to animate the text onstage through status exercises and scene work as they develop their skill in text work, staging, and dramatic storytelling. Prerequisites: THDR or TDDR 108 or THHS or TDHT 10.

TDHT 101. Topics in Dramatic Literature and Theatre History (4)
An in-depth exposure to an important individual writer or subject in dramatic literature and/or theatre history. Topics vary from quarter to quarter. Recent courses have included Modern French Drama, and the History of Russian Theatre. No prior knowledge in theatre history is needed. May be taken for credit three times. Prerequisites: upper-division standing or consent of instructor.

TDHT 114. American Musical Theatre (4)
The class will explore the musical's origins, evolution, components, and innovators, with emphasis on adaptation and the roles of the director and choreographer. No prior knowledge in theatre history is needed. Prerequisites: upper-division standing or consent of instructor.

TDMV 110. Intermediate Ballet (4)
Continued studio work in ballet technique at the intermediate level and terminology. Emphasis on increasing strength, flexibility, and balance, and the interpretation of classical musical phrasing. Includes proper alignment training and artistic philosophy of classical ballet. May be taken for credit six times. Prerequisites: six units of TDMV 1 or consent of instructor.

TDMV 111. Advanced Ballet (4)
A contemporary approach to ballet technique, terminology, and performance at the advanced level. Introduces more complex choreographic variations and skills. Individual and group composition will be examined and aesthetic criticism applied. May be taken for credit six times. Prerequisites: twelve units of TDMV 110 or consent of instructor.

TDMV 120. Intermediate Contemporary Dance (4)
The development of contemporary dance as an expressive medium, with emphasis on technical skills at the intermediate level. Includes the principles, elements, and historical context of contemporary modern postmodern dance. May be taken for credit six times. Prerequisites: TDMV 2 or consent of instructor.

TDMV 122. Advanced Contemporary Dance (4)
The development of contemporary somatic approaches to dance as an expressive medium, emphasizing advanced technical skills, efficient athleticism, kinesthetic refinement, individual creative voice, and performance elements. Choreography and aesthetic concepts will be explored. Incorporates various principles of human movement research. May be taken for credit six times. Prerequisites: twelve units of TDMV 120 or consent of instructor.

TDMV 123. Contact Improvisation (4)
Students will study the practice of improvisational dancing with a partner. Students will develop skills in giving and supporting body weight, lifting, balancing, falling, rolling, and recovering fluidly together. May be taken for credit three times. Prerequisites: upper-division standing or consent of instructor.

TDMV 124. Latin Dance of the World (4)
An introduction to the basic technique of hip-hop, studied to enhance an understanding of the historical cultural content of the American form hip-hop and street dances in current choreography. May be taken for credit four times. Prerequisites: upper-division standing.

TDMV 138. Beginning Hip-Hop (2)
An introduction to the basic technique of hip-hop, studied to enhance an understanding of the historical cultural content of the American form hip-hop and street dances in current choreography. May be taken for credit four times. Prerequisites: upper-division standing.

TDMV 142. Latin Dance of the World (4)
To develop an appreciation and understanding of the various Latin dances. Emphasis on learning basic social dance movement vocabulary, history of Latin cultures, and use of each dance as a means of social and economic expression. May be taken for credit three times. Prerequisites: upper-division standing.

TDMV 143. West African Dance (4)
An introductory course that explores the history of West African cultures and diasporas through student research, oral presentation, dance movement, and performance. Contemporary African dances influenced by drum masters and performing artists from around the world are also covered. Course materials and services fees may apply. May be taken for credit three times. Prerequisites: upper-division standing.

TDMV 144. Intermediate Latin Dances of the World (4)
To develop an appreciation and understanding of the various Latin dances. Emphasis on learning intermediate social dance movement vocabulary, history of Latin cultures, and use of each dance as a means of social and economic expression. May be taken for credit two times. Prerequisites: TDMV 142.

TDMV 148. Intermediate Hip-Hop (4)
This course is designed to build on the skills developed in TDMV 138, Hip-Hop, also deepening students’ understanding of the social, political, and economic forces at work within hip-hop culture. More complex rhythms and sequencing will be introduced, and musicality will be honed through an added emphasis on freestyle expression. May be taken for credit four times. Prerequisites: TDMV 138.

VIS 1. Introduction to Art-Making: Two-Dimensional Practices (4)
An introduction to the concepts and techniques of art making with specific reference to the artists and issues of the twentieth century. Lectures and studio classes will examine the nature of images in relation to various themes. Drawing, painting, found objects, and texts will be employed. This course is offered only one time each year. Prerequisites: none.

VIS 70N. Introduction to Media (6)
Operating as both a lecture and production course, this introductory class provides a technical foundation and theoretical context for all subsequent production-oriented film and video studies. In the laboratory, the student will learn the basic skills necessary to initiate video production. Completion of Visual Arts 70N is necessary to obtain a media card. Prerequisite: none (program or materials fee may apply).

VIS 20. Introduction to Art History (4)
This course examines history of Western art and architecture through such defining issues as the respective roles of tradition and innovation in the production and appreciation of art; the relation of art to its broader intellectual and historical contexts; and the changing concepts of the monument, the artist, meaning, style, and “art” itself. Representative examples will be selected from different periods, ranging from Antiquity to Modern. Content will vary with the instructor. Prerequisite: none.
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VIS 30. Introduction to Speculative Design (4)
Speculative design uses design methods to question and investigate material culture with critical creative purpose. This course provides a historical, theoretical, and methodological introduction to speculative design as a distinct program. Emphasis is tracing the integration of interdisciplinary intellectual and technical problems toward creative, unexpected propositions and prototypes. Prerequisites: none.

VIS 41. Design Communication (4)
This course provides a strong foundation in contemporary techniques of design communication, including: digital image editing, typography, vector-based illustration and diagramming, document layout, as well as basic digital video editing tools, and web-production formats. Emphasis is on mastery of craft through iteration and presentation of multiple projects. Students may not receive credit for VIS 140 or ICAM 101 and VIS 41. Prerequisites: none.

VIS 60. Introduction to Digital Photography (4)
An in-depth exploration of the camera, combining darkroom techniques in black and white, and color photography. Emphasis is placed on developing reliable control of the fundamental materials and procedures through lectures, field, and lab experience. Basic discussion of image making included. Prerequisite: none. Program or materials fee may apply.

VIS 101. Introduction to Urban Ecologies (4)
This course examines expanded meanings of the urban and the ecological into new conceptual zones for artistic practice and research, introducing urbanization as complex and transformative processes of interrelated cultural, socioeconomic, political, and environmental conditions, whose material and informational flows are generative of new interpretations of ecology. Prerequisites: VIS 30 and 41.

VIS 103. Architectural Practices (4)
We can learn a lot from the spatial, aesthetic, and formal strategies of architects, as well as their critical stance on the shifting cultural, socio-political, and economic dynamics in the contemporary city. This is an introductory course to explore some of the most important, innovative contemporary architectural practices in the world, and their role in shaping new paradigms in design, material, urban, and environmental culture. Prerequisites: VIS 30 and 41.

VIS 105A. Drawing: Representing the Subject (4)
A studio course in beginning drawing covering basic drawing and composition. These concepts will be introduced by the use of models, still life, landscapes, and conceptual projects. Prerequisites: VIS 80.

VIS 105B. Drawing: Practices and Genre (4)
A continuation of VIS 105A. A studio course in which the student will investigate a wider variety of technical and conceptual issues involved in contemporary art practice related to drawing. Prerequisites: VIS 105A.

VIS 106B. Painting: Practices and Genre (4)
A continuation of VIS 106A. A studio course in which the student will investigate a wider variety of technical and conceptual issues involved in contemporary art practice related to painting. Prerequisites: VIS 106A.

VIS 106C. Painting: Portfolio Projects (4)
A studio course in painting emphasizing individual creative problems. Class projects, discussions, and critiques will focus on issues related to intention, subject matter, and context. Prerequisites: VIS 106B.

FINE ARTS

VIS 107C. Sculpture: Portfolio Projects (4)
A studio course in sculpture emphasizing individual creative problems. Class projects, discussions, and critiques will focus on issues related to intention, subject matter, and context. Students may not receive credit for both VIS 107C and VIS 107CN. Prerequisites: VIS 107B.

VIS 110C. Proposals, Plans, Presentations (4)
This is a course for the advanced visual arts major that explores the use of the maquette, or sketch, in the process of developing, proposing, and planning visual works in various media for public projects, site specific works, grants, exhibition proposals, etc. The student will work on synthesizing ideas and representing them in alternate forms that deal with conception, fabrication, and presentation. Prerequisites: senior standing. Open to media, studio, ICAM, and speculative design majors.

VIS 110D. Visual Narrative (4)
This course for the advanced visual arts major explores narrative in art practice. The course will explore the construction of real and fictive narratives across a variety of disciplines with an emphasis on illustration, the graphic novel, comics, and other forms of drawing practice. Studio work is complemented by in-depth study of the gaze, subjectivity, memory, and imagination. After guided assignments, emphasis is on self-directed projects. Prerequisites: senior standing. Open to media, studio, ICAM, and speculative design majors.

VIS 122CN. Leonardo da Vinci in Context (4)
An in depth look at the art of Leonardo da Vinci with special emphasis on his training in Florence, interactions with Bramante, and the response to his work by Raphael. Prerequisites: upper-division standing.

VIS 125G. History of Socially Engaged Art (4)
This course will present an overview of socially engaged art in the modern era. We will explore the historical roots of these practices in the nineteenth and early twentieth centuries and the new forms of activist art that emerged during the 1960s. We will also explore the growth of engaged art produced in conjunction with new movements for social and economic justice since the 1990s. Prerequisites: upper-division standing.

VIS 127C. Arts of Modern China (4)
Course will explore Chinese art of the twentieth century. By examining artworks in different media, we will investigate the most compelling of the multiple realities that Chinese artists have constructed for themselves. Recommended preparation: VIS 21B. Prerequisites: upper-division standing.

VIS 128A. Topics in Premodern Art History (4)
A lecture course on a topic of special interest in ancient or medieval art. Recommended preparation: courses in art history (VIS 113AN–129F). Prerequisites: upper-division standing.

VIS 129C. Seminar in Modern Art History (4)
A seminar on an advanced topic of special interest in modern or contemporary art. Prerequisites: VIS 112 or two upper-division courses in art history (VIS 113AN–129F).

VIS 131. Special Projects in Media (4)
Specific content will vary each quarter. Areas will cover expertise of visiting faculty. May be taken for credit two times. Two production-course limitation. Prerequisites: senior standing or consent of instructor required. Open to media, studio, ICAM, and speculative design majors only.
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VIS 141B. Computer Programming for the Arts II (4)
Students extend their programming capabilities to include the creation of reusable software libraries, packages, database API’s, tools, utilities, and applications intended to be publishable and useful to other practicing artists, or as preparatory work for the student’s senior thesis sequence. Two production-course limitation. Program or materials fees may apply. **Prerequisites:** VIS 141A. Open to ICAM and speculative design majors and minors only.

VIS 142. Practices in Computing Arts (4)
A survey of the conceptual uses and historical precedents for the use of computers in art and design. Preparation for further study in the computer arts area by providing an introduction to ideation strategies and critique-based evaluation, and an overview of theoretical issues related to the use of computers by artists and designers. Introduces the students to the program’s computing and production facilities, and basic computer programming skills. Two production-course limitation. Program or materials fees may apply. **Prerequisites:** upper-division standing.

VIS 143. Virtual Environments (4)
Students develop artworks and performances in current virtual environments. Projects may be done individually or in groups in multiplayer games, immersive life platforms, or mixed reality projects and performances. Exploration of theoretical issues involved will underlie acquisition of techniques utilized in the construction of virtual environments. Materials fees required. **Prerequisites:** VIS 142; CSE 11 recommended. Open to visual arts majors and ICAM minors only. Two production-course limitation.

VIS 147A. Electronic Technologies for Art I (4)
Develop artworks and installations that utilize digital electronics. Techniques in digital electronic construction and computer interfacing for interactive control of sound, lighting, and electromechanics. Construction of devices that responsively adapt artworks to conditions involving viewer participation, space activation, machine intelligence. Recommended preparation: CSE 8A strongly recommended. Program or materials fees may apply. Purchase of components kit required. Two production-course limitation. **Prerequisites:** VIS 41 or VIS 70N or VIS 80. Open to media, studio, ICAM, and speculative design majors and computing and the arts and speculative design minors.

VIS 149. Seminar in Contemporary Computer Topics (4)
Topics relevant to computer-based art and music making, such as computer methods for making art/music, design of interactive systems, spatialization of visual/musical elements, critical studies. Topics will vary. May be taken for credit three times. Recommended preparation: VIS 145A or MUS 171. Program or materials fees may apply. Two production-course limitation. **Prerequisites:** upper-division standing. Open to media, studio, ICAM, and speculative design majors and ICAM and speculative design minors.

VIS 152. Film in Social Context (4)
This collection of courses gathers, under one cover, films that are strongly marked by period, geography, and the culture within which they received their dominating local quality. These courses pay particular attention to the stamp of place—climate, dress, habitation, language, music, politics—as well as the filmic moves that helped color such works as environmental. The series takes in the following subjects: Third World films, the Munich films (the new wave of Germans who made their first features in Munich following 1967), Japanese movies, films of the American thirties and their relationship to current thought, American War films, B westerns, Cinema Novo, etc. Specific topics to be covered will vary with the instructor. May be repeated twice for credit. Materials fees required. **Prerequisites:** VIS 84.

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VIS 158. Histories of Photography (4)
Photography is so ubiquitous a part of our culture that it seems to defy any simple historical definition. Accordingly, this course presents a doubled account of the medium; it explores both the historical and cultural specificity of a singular photography as well as some of the multitude of photographs that inhabit our world. Will examine a number of the most important photographic themes from the past two hundred years. **Prerequisites:** none.

VIS 162. Speculative Science and Design Invention (4)
The course seeks to bring the scientific laboratory into the artist and designers’ studio, and vice versa. It explores intersections of advanced research in art/design and science/technology. The course will focus on a specific laboratory innovation or a longer-term enduring challenge, and will conceive and prototype possible applications, scenarios, structures, and interventions. Course will be conducted in direct collaborations with other campus laboratories and research units. **Prerequisites:** VIS 161.

VIS 164. Photographic Strategies: Art or Evidence (4)
An intermediate course that expands the possibility of photography as an art practice. The students will learn to use and think of photography as a means of expression. Using the languages of contemporary art and photography the student will develop a body of work to be presented and critiqued. The construction of sequences, series, and the art of editing will be an important part of this critique-based course. Program or materials fees may apply. Two production-course limitation. **Prerequisites:** VIS 60. Open to art history and criticism, media, studio, and ICAM majors and photography minors.

VIS 165. Camera Techniques: Analog Futures (4)
Course explores both material and conceptual analog photography practices. Course will introduce the students to the history of chemical and ocular processes since the nineteenth century and their impact on image making. Students will learn basic black-and-white darkroom techniques, processing film, proofing, and printing. Course will conclude with a primer in the new photographic hybridity, bringing analog into the digital terrain. Students will be required to create a small portfolio of work. Program or materials fees may apply. Two production-course limitation. **Prerequisites:** VIS 60. Open to art history and criticism, media, studio, and ICAM majors and photography minors.

VIS 168. Pictorialism and Constructed Reality (4)
This course will explore photography as art and its long and complicated relationship with painting. Students will learn and be encouraged to experiment with the medium formally and conceptually. From studio and lighting techniques to collage, montage, constructed realities, installations, and projections. Program or materials fees may apply. Two production-course limitation. **Prerequisites:** VIS 164 or VIS 165. Open to media, studio, and ICAM majors and photography minors.

VIS 171. Digital Cinema—Theory and Production (4)
A digital image is not a film image, and this reality and its technological and conceptual implications are what this course will attempt to map out, exploring its possibilities and the massive overhaul of media aesthetics it implies. Two production-course limitation. **Prerequisites:** VIS 174. Open to media majors and film production minors only.
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<td><strong>FINE ARTS</strong></td>
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<tr>
<td>VIS 174. Media Sketchbook (4)</td>
<td>Video medium used both as production technology and as device to explore the fundamental character of filmmaking and time-based computer art practices. Students perform all aspects of production with attention to developing ideas and building analytical/critical skills. Two production-course limitation.</td>
<td>Prerequisites: VIS 70N. Open to media, studio, ICAM, and speculative design majors; and film production and speculative design minors.</td>
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<td>VIS 175. Editing—Theory and Production (4)</td>
<td>The evolving aims and grammars of editing practice in film and digital media will be examined. These histories will create a context for exploring contemporary editing strategies. The production projects will be centered on digital editing practice. Two production-course limitation.</td>
<td>Prerequisites: VIS 174. Open to media majors and film production minors.</td>
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<td>VIS 177. Scripting Strategies (4)</td>
<td>Script writing, reading, and analysis of traditional and experimental media productions. The emphasis will be on the structural character of the scripting process and its language. Students will write several short scripts along with analytical papers. Two production-course limitation.</td>
<td>Prerequisites: VIS 174. Open to media majors and film production minors.</td>
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<td>VIS 178. Sound—Theory and Production (4)</td>
<td>Sound design plays an increasing role in media production and has opened up new structural possibilities for narrative strategies. A critical and historical review of sound design and a production methodology component. Critical papers and soundtracks for short film projects will be required. Two production-course limitation.</td>
<td>Prerequisites: VIS 174. Open to media and speculative design majors and film production minors.</td>
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<td>VIS 180A. Documentary Evidence and the Construction of Authenticity in Current Media Practices (4)</td>
<td>Exploration of concepts in representational artworks by critically examining “found” vs. “made” recorded material. Advanced film/video, photography, computing work. Issues of narrative and structure; attention to formal aspects of media work emphasized.</td>
<td>Prerequisites: VIS 174 and two from VIS 164, 165, 171, 175, 176, 177, 178. Open to media majors only.</td>
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<td>VIS 180B. Fiction and Allegory in Current Media Practices (4)</td>
<td>Exploration of choices in invention, emphasizing “made” over “found.” Advanced film/video, photography, and computing. Issues of narrative and structure, and formal aspects of media work emphasized.</td>
<td>Prerequisites: VIS 174 and two from VIS 164, 165, 171, 175, 176, 177, 178. Open to media majors only.</td>
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<td>VIS 183A. Strategies of Self (4)</td>
<td>Looks at the way that self-identity is reflected and produced through various media practices. Focus is on rhetorical strategies of biography and autobiography in media, comparing and contrasting these strategies with those drawn from related cultural forms. Two production-course limitation.</td>
<td>Prerequisites: VIS 174 and two from VIS 164, 165, 171, 175, 176, 177, 178. Open to media majors only.</td>
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<td><strong>QUANTITATIVE/FORMAL SKILLS</strong></td>
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<td><strong>Formal Logic</strong></td>
<td><strong>PHIL 10. Introduction to Logic (4)</strong></td>
<td>Basic concepts and techniques in both informal and formal logic and reasoning, including a discussion of argument, inference, proof, and common fallacies, and an introduction to the syntax, semantics, and proof method in sentential (propositional) logic.</td>
<td>Prerequisite: none</td>
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<td><strong>PHIL 12. Scientific Reasoning (4)</strong></td>
<td>Strategies of scientific inquiry: how elementary logic, statistical inference, and experimental design are integrated to evaluate hypotheses in the natural and social sciences.</td>
<td>Prerequisite: none</td>
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<td><strong>Statistics</strong></td>
<td><strong>CSE 3. Fluency in Information Technology (4)</strong></td>
<td>Introduces the concepts and skills necessary to effectively use information technology. Includes basic concepts and some practical skills with computer and networks.</td>
<td>Prerequisite: none</td>
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<td><strong>MAE 5. Quantitative Computer Skills (4)</strong></td>
<td>Introductory course for non-engineering majors. Use of computers in solving problems; applications from life sciences, physical sciences, and engineering. Students run existing computer programs and complete some programming in BASIC.</td>
<td>Prerequisite: none.</td>
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<td><strong>MATH 11. Calculus-Based Introductory Probability and Statistics (5)</strong></td>
<td>Events and probabilities, conditional probability, Bayes’ formula. Discrete and continuous random variables: mean, variance; binomial, Poisson distributions, normal, uniform, exponential distributions, central limit theorem. Sample statistics, confidence intervals, hypothesis testing, regression. Applications. Introduction to software for probabilistic and statistical analysis. Emphasis on connections between probability and statistics, numerical results of real data, and techniques of data analysis.</td>
<td>Prerequisites: AP Calculus BC score of 3, 4, or 5, or MATH 10B or MATH 20B.</td>
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<td><strong>MGT 3. Quantitative Methods in Business (4)</strong></td>
<td>Introduction to techniques to develop/analyze data for informed tactical and strategic management decisions: statistical inference, probability, regression analysis, and optimization. Using these analytic approaches, theory-based formulas, and spreadsheets, students explore managerial applications across all areas of business activity.</td>
<td>Prerequisites: none.</td>
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## QUANTITATIVE/ FORMAL SKILLS
For Science/Math/Engineering Majors

### Computer Programming

**CSE 5A. Introduction to Programming I (4)**
Introduction to algorithms and top-down problem solving. Introduction to the C language including functions, arrays, and standard libraries. Basic skills for using a PC graphical user interface operating system environment. File maintenance utilities are covered. (A student may not receive credit for CSE 5A if they receive credit for CSE 11 or CSE 8B.) **Prerequisite:** A familiarity with high-school level algebra is expected, but this course assumes no prior programming knowledge.

**CSE 8B. Introduction to Computer Science: Java II (4)**
Continuation of the Java language. Continuation of programming techniques. More on inheritance. Exception handling. CSE 8B is part of a two-course sequence (CSE 8A and CSE 8B) that is equivalent to CSE 11. Students should consult the “CSE Course Placement Advice” page for assistance in choosing which CSE course to take first. Students may not receive credit for CSE 8B and CSE 11. **Prerequisites:** CSE 8A; restricted to undergraduates. Graduate students will be allowed as space permits.

**ECE 15. Engineering Computation (4)**
Students learn the C programming language with an emphasis on high-performance numerical computation. The commonality across programming languages of control structures, data structures, and I/O is also covered. Techniques for using MatLab to graph the results of C computations are developed. **Prerequisites:** a familiarity with basic mathematics such as trigonometry functions and graphing is expected but this course assumes no prior programming knowledge.

**COGS 9. Introduction to Data Science (4)**
Concepts of data and its role in science will be introduced, as well as the ideas behind data-mining, text-mining, machine learning, and graph theory, and how scientists and companies are leveraging those methods to uncover new insights into human cognition. **Prerequisite:** none

**COGS 18. Introduction to Python (4)**
This class will teach fundamental Python programming skills and practices, including the “Zen of Python.” Students will focus on scientific computing and learn to write functions and tests, as well as how to debug code using the Jupyter Notebook programming environment. Students with limited computing experience may take COGS 3 for preparation. **Prerequisite:** none

### Mathematics/ Calculus

**MATH 3C. Pre-Calculus (4)**
Functions and their graphs. Linear and polynomial functions, zeroes, inverse functions, exponential and logarithm, trigonometric functions and their inverses. Emphasis on understanding algebraic, numerical and graphical approaches making use of graphing calculators. (No credit given if taken after Math 4C, 1A/10A, or 2A/20A.) Three or more years of high school mathematics or equivalent recommended. **Prerequisite:** Math Placement Exam qualifying score.

**MATH 4C. Pre-Calculus for Science and Engineering (4)**
Review of polynomials. Graphing functions and relations: graphing rational functions, effects of linear changes of coordinates. Circular functions and right triangle trigonometry. Reinforcement of function concept: exponential, logarithmic, and trigonometric functions. Vectors. Conic sections. Polar coordinates. Three lectures, one recitation. (No credit given if taken after Math 10A or 20A. Two units of credit given if taken after Math. 3C.) **Prerequisite:** Math Placement Exam qualifying score, or Math 3C with a grade of C or better.

**MATH 10A. Calculus I (4)**
Differentiation and integration of algebraic functions. Fundamental theorem of calculus. Applications. (No credit given if taken after or concurrently with Math 20A.) **Prerequisite:** Math Placement Exam qualifying score, or AP Calculus AB score of 2, or SAT II Math 2C score of 600 or higher, or Math 3C with a grade of C or better, or Math 4C with a grade of C– or better.

**MATH 10B. Calculus II (4)**
Integral calculus of functions of one variable, with applications. Antiderivatives, definite integrals, the Fundamental Theorem of Calculus, methods of integration, areas and volumes, separable differential equations. (No credit given if taken after or concurrently with Math 20B.) **Prerequisite:** AP Calculus score of 3, 4, or 5 (Or equivalent AB subscore on BC exam), or Math 10A, or Math 20A.

**MATH 10C. Calculus III (4)**
Introduction to functions of more than one variable. Vector geometry, partial derivatives, velocity and acceleration vectors, optimization problems. (No credit given if taken after or concurrent with 20C.) **Prerequisite:** AP Calculus BC score of 3, 4, or 5, or MATH 10B, or MATH 20B.

**MATH 20A. Calculus for Science and Engineering (4)**
Foundations of differential and integral calculus of one variable. Functions, graphs, continuity, limits, derivative, tangent line. Applications with algebraic, exponential, logarithmic, and trigonometric functions. Introduction to the integral. (Two credits given if taken after Math 10A and no credit given if taken after Math 10B or Math 10C) **Prerequisite:** Math Placement Exam qualifying score, or AP Calculus AB score of 2 or 3, or SAT II Math 2C score of 650 or higher, or Math 4C with a grade of C– or better, or Math 10A with a grade of C– or better.

**MATH 20B. Calculus for Science and Engineering (4)**
Integral calculus of one variable and its applications, with exponential, logarithmic, hyperbolic, and trigonometric functions. Methods of integration. Polar coordinates in the plane. (Two units of credits given if taken after Math 10B or Math 10C) **Prerequisite:** AP Calculus AB score of 4, or 5, or AP Calculus BC score of 3, or Math 20A with a grade of C– or better, or Math 10B with a grade of C– or better, or Math 10C with a grade of C– or better.

**MATH 20C. Calculus and Analytic Geometry for Science and Engineering (4)**
Vector geometry, vector functions and their derivatives. Partial differentiation. Maxima and minima. Double integration. Two units of credit given if taken after Math 10C. **Credit not offered for both Math 20C and 318H. Prerequisite:** AP Calculus BC score of 4, or 5, or Math 20B with a grade of C– or better.
ANTH 2. Human Origins (4)
An introduction to human evolution from the perspective of physical anthropology, including evolutionary theory and the evolution of the primates, hominids, and modern humans. Emphasis is placed on evidence from fossil remains and behavioral studies of living primates. Prerequisites: none.

BILD 20. Human Genetics in Modern Society (4)
Fundamentals of human genetics and introduction to modern genetic technology such as gene cloning and DNA fingerprinting. Applications of these techniques, such as forensic genetics, genetic screening, and genetic engineering. Social impacts and ethical implications of these applications. This course is designed for nonbiology students and does not satisfy a lower-division requirement for any biology major. Open to nonbiology majors only. Prerequisites: none.

An introduction to diseases caused by viruses, bacteria, and parasites, and the impact of these diseases on human society. Topics include the biology of infectious disease, epidemiology, and promising new methods to fight disease. Prerequisite: none.

CHEM 11. The Periodic Table (4)
Introduction to the material world of atoms and small inorganic molecules. Student may not receive credit for both Chem 4 and Chem 11. Prerequisite: none.

COGS 11. Minds and Brains (4)
How damaged and normal brains influence the way humans solve problems, remember or forget, pay attention to things; how they affect our emotions; and language in daily life. Prerequisite: none.

COGS 17. Neurobiology of Cognition (4)
Introduction to the organization and functions of the nervous system. Topics include molecular, cellular, developmental, systems, and behavioral neurobiology. Specifically, structure and function of neurons, peripheral and central nervous systems, sensory, motor, and control systems, learning and memory mechanisms. Students may not receive credit for both Biology 12 and Cognitive Science 17. Prerequisite: none.

ENVR 30. Environmental Issues: Natural Sciences (4)
Examines global and regional environmental issues. The approach is to consider the scientific basis for policy options. Simple principles of chemistry and biology are introduced. The scope of problems includes: air and water pollution, climate modification, solid waste disposal, hazardous waste treatment, and environmental impact assessment. Prerequisites: none.

SIO 12. History of the Earth and Evolution (4)
Evolution of the Earth from its origin in the early solar system to formation of continents and ocean basins, and how the planet became habitable. It examines the geologic record of evolution, extinction, plate tectonics, and climate changes through time. Prerequisites: none.

SIO 15. Natural Disasters (4)
Introduction to environmental perils and their impact on everyday life. Geological and meteorological processes, including earthquakes, volcanic activity, large storms, global climate change, mass extinctions throughout Earth’s history, and human activity that causes and prevents natural disasters. Prerequisites: none.

SIO 30. The Oceans (4)
Presents modern ideas and descriptions of the physical, chemical, biological, and geological aspects of oceanography, and considers the interactions between these aspects. Intended for students interested in the oceans, but who do not necessarily intend to become professional scientists. Prerequisites: none. (F)

SIO 40. Life and Climate on Earth (4)
Explores life on Earth and its relationship to the environment—past, present, and future. Topics include origins of life, earth history, elemental cycles, global climate variability and human impacts on our environment. Prerequisites: none. (F)

SIO 50. Introduction to Earth and Environmental Sciences (6)
This course is an introduction to how our planet works, focusing on the formation and evolution of the solid earth, and the processes affecting both its surface and interior. Labs and field trips complement and extend the lecture material. Prerequisite: none. Program and/or materials fee may apply.

PHYS 5. Stars and Black Holes (4)
An introduction to the evolution of stars, including their birth and death. Topics include constellations, the atom and light, telescopes, stellar birth, stellar evolution, white dwarfs, neutron stars, black holes, and general relativity. This course uses basic algebra, proportion, radians, logs, and powers. Physics 5, 7, 9, and 13 form a four-quarter sequence and can be taken individually in any order. Prerequisite: none.

PHYS 13. Life in the Universe (4)
An exploration of life in the Universe. Topics include defining life; the origin, development, and fundamental characteristics of life on Earth; searches for life elsewhere in the Solar System and other planetary systems; space exploration; and identifying extraterrestrial intelligence. This course uses basic algebra, proportion, radians, logs, and powers. Physics 5, 7, 9, and 13 form a four-quarter sequence and can be taken individually in any order. Prerequisites: none.
**BILD 1. The Cell (4)**
An introduction to cellular structure and function, to biological molecules, bioenergetics, to the genetics of both prokaryotic and eukaryotic organisms, and to the elements of molecular biology. **Prerequisites:** CHEM 6A; CHEM 6B may be taken concurrently.

**BILD 2. Multicellular Life (4)**
An introduction to the development and the physiological processes of plants and animals. Included are treatments of reproduction, nutrition, respiration, transport systems, regulation of the internal environment, the nervous system, and behavior. **Prerequisites:** BILD 1.

**BILD 3. Organismic and Evolutionary Biology (4)**
The first principles of evolutionary theory, classification, ecology, and behavior; a phylogenetic synopsis of the major groups of organisms from viruses to primates. **Prerequisite:** none.

**CHEM 4. Basic Chemistry (4)**
Chemistry 4 is for science majors with insufficient preparation to start the Chem 6 sequence. Topics include nomenclature, stoichiometry, basic reactions, bonding, and the periodic table. May not receive credit for both Chem 4 and Chem 11. Recommended: concurrent enrollment in Math 3C, 4C or 10A or higher. **Prerequisite:** none.

**CHEM 6A. General Chemistry I (4)**
First quarter of a three-quarter sequence intended for science and engineering majors. Topics include: atomic theory, bonding, molecular geometry, stoichiometry, types of reactions, and thermochemistry. May not be taken for credit after Chem 6AH. Recommended: proficiency in high school chemistry and/or physics; concurrent or prior enrollment in Math 10A or 20A. **Prerequisite:** none.

**CHEM 6B: General Chemistry II (4)**
Second quarter of a three-quarter sequence intended for science and engineering majors. Topics include: covalent bonding, gases, liquids, and solids, colligative properties, physical and chemical equilibria, acids and bases, solubility. May not be taken for credit after Chem 6BH. **Prerequisites:** Chem 6A or 6AH and Math 10A or 20A. Recommended: concurrent or prior enrollment in Math 10B or 20B.

**CHEM 6C. General Chemistry III (4)**
Third quarter of a three-quarter sequence intended for science and engineering majors. Topics include: thermodynamics, kinetics, electrochemistry, coordination chemistry, and introductions to nuclear, main group organic, and biochemistry. May not be taken for credit after Chem 6CH. **Prerequisites:** Chem 6B or 6BH. Recommended: completion of Math 10B or 20B.

**PHYS 1A: Mechanics (3)**
First quarter of a three-quarter introductory physics course, geared towards life-science majors. Equilibrium and motion of particles in one and two dimensions in the framework of Newtonian mechanics, force laws (including gravity), energy, momentum, rotational motion, conservation laws, and fluids. Examples will be drawn from astronomy, biology, sports, and current events. **Prerequisites:** Mathematics 10A or 20A. Corequisites: Physics 1AL and Mathematics 10B or 20B.

**PHYS 1AL. Mechanics Laboratory (2)**
Physics laboratory course to accompany PHYS 1A. Experiments in mechanics. **Prerequisites:** Mathematics 10A or 20A. Corequisites: Physics 1A and Mathematics 10B or 20B.

**PHYS 1B. Electricity & Magnetism (3)**
Second quarter of a three-quarter introductory physics course geared towards life-science majors. Electric fields, magnetic fields, DC and AC circuitry. **Prerequisites:** PHYS 1A or 2A, 1AL or 2BL, and Math 10B or 20B. Corequisites: Physics 1BL and Math 10C or 20C or 11.

**PHYS 1BL. Electricity & Magnetism Laboratory (2)**
Physics laboratory course to accompany PHYS 1B. Experiments in electricity and magnetism. Course materials fee may apply. **Prerequisite:** Physics 1A or 2A, 1AL or 2BL, and Mathematics 10B or 20B. Corequisites: Physics 1B and Mathematics 10C or 20C or 11.

**PHYS 1C. Waves, Optics & Modern Physics (3)**
Third quarter of a three-quarter introductory physics course geared toward life-science majors. The physics of oscillations and waves, vibrating strings and sound, the behavior of systems under combined thermal and electric forces, and the interaction of light with matter as illustrated through optics and quantum mechanics. Examples from biology, sports, medicine, and current events. **Prerequisites:** Physics 1B or 2B, 1BL or 2CL, and Math 10C or 20C or 31BH or 11. Corequisites: Physics 1CL.

**PHYS 1CL. Waves, Optics, and Modern Physics Laboratory (2)**
Physics laboratory course to accompany Physics 1C. Experiments in waves, optics, and modern physics. Program or material fee may apply. **Prerequisites:** Physics 1B or 2B, 1BL or 2CL, and Math 10C or 20C or 31BH or 11. Corequisites: Physics 1C.

**PHYS 2A. Physics—Mechanics (4)**
A calculus-based science engineering general physics course covering vectors, motion in one and two dimensions, Newton’s first and second laws, work and energy, conversation of energy, linear momentum, collisions, rotational kinematics, rotational dynamics, equilibrium of rigid bodies, oscillations, gravitation. Students may not receive credit for PHYS 2A and 4A. **Prerequisites:** Math 20A Corequisites: Math 20B.

**PHYS 2B. Physics—Electricity & Magnetism (4)**
Continuation of PHYS 2A covering charge and matter, the electric field, Gauss’s law, electric potential, capacitors and dielectrics, current and resistance, electromagnetic force and circuits, the magnetic field, Ampere’s law, Faraday’s law, inductance, electromagnetic oscillations, alternating currents and Maxwell’s equations. **Prerequisites:** PHYS 2A or 4A and Math 20A-B. Corequisite: Math 20C.

**PHYS 2C. Physics—Fluids, Waves, Thermodynamics & Optics (4)**
Continuation of PHYS 2B covering fluid mechanics, waves in elastic media, sound waves, temperature, heat and the first law of thermodynamics, kinetic theory of gases, entropy and the second law of thermodynamics, geometric optics, interference and diffraction. **Prerequisites:** PHYS 2A or 4A, and Math 20A-C. Corequisite: Math 20D.

**PHYS 2D. Physics—Relativity and Quantum Physics (4)**
A modern physics course covering atomic view of matter, electricity and radiation, atomic models of Rutherford and Bohr, relativity, X-rays, wave and particle duality, matter waves, Schrödinger’s equation, atomic view of solids, natural radioactivity. **Prerequisites:** Physics 2A or 4A, 2B, and Math 20D. Corequisites: Math 20E or 31CH (prior completion is sufficient).
TDMV 143. West African Dance (4)
An introductory course that explores the history of West African cultures and diasporas through student research, oral presentation, dance movement, and performance. Contemporary African dances influenced by drum masters and performing artists from around the world are also covered. Course materials and services fees may apply. May be taken for credit three times. Prerequisites: upper-division standing.

EDS 131. Early Childhood Development and Education (4)
This course investigates early child development (birth through eight years), education, and the role of high-quality early education on reducing inequities among diverse populations. Field experience and seminar focus on applying research and theory to experiences in early childhood classrooms (P–3). Prerequisites: department approval. Students will need to fill out a placement form prior to getting approval to enroll in EDS 131. This form provides the course instructor with

EDS 136. Introduction to Academic Tutoring of Secondary School Students (4)
This course focuses on the role of undergraduate tutors in building academic resiliency in secondary students traditionally underrepresented at the university. The relationship between the school and community, the social and political organization of secondary schools, the philosophical, sociological, and political issues which relate to the US secondary educational system, and the academic achievement of secondary children are examined. Prerequisites: department approval required; EDS 139 must be taken as a corequisite.

ETHN 103. Environmental Racism (4)
This course will examine the concept of environmental racism, the empirical evidence of its widespread existence, and the efforts by government, residents, workers, and activists to combat it. We will examine those forces that create environmental injustices in order to understand its causes as well as its consequences. Students are expected to learn and apply several concepts and social scientific theories to the course material. Prerequisites: none.

ETHN 104. Race, Space, and Segregation (4)
Through in-depth studies of housing segregation, urban renewal and displacement, neighborhood race effects, and the location of hazards and amenities, this course examines how space becomes racialized and how race becomes spatialized in the contemporary United States. Prerequisites: none.

ETHN 108. Race, Culture, and Social Change (4)
(Cross-listed with MUS 151.) Aggrieved groups often generate distinctive forms of cultural expression by turning negative ascription into positive affirmation and by transforming segregation into congregation. This course examines the role of cultural expressions in struggles for social change by these communities inside and outside the United States. Prerequisites: none.

ETHN 112B. History of Native Americans in the United States II (4)
(Cross-listed with HIUS 108B.) This course examines the history of Native Americans in the United States, with emphasis on the lifeways, mores, warfare, cultural adaptation, and relations with the United States from 1870 to the present. Prerequisites: none.

ETHN 117. Organic Social Movements (4)
Examination of local responses to global change and social disruption through the examination of organic movements in indigenous societies. In-depth analysis of the Kuna Indians of San Bias, Panama; Maya-Zapatistas of Chiapas, Mexico; and Micronesians of the western Pacific. Prerequisites: none.

ETHN 119. Race in the Americas (4)
This course explores the genesis, evolution, and contradictions of racially heterogeneous societies in the Americas, from European conquest to the present. Topics: the social history of Native Americans, blacks, and Asians, their interactions with European settlers, and racial, sexual, and class divisions. Prerequisites: none.
THE AMERICAS AND MULTI-ETHNIC US (cont.)

ETHN 119. Race in the Americas (4)
This course explores the genesis, evolution, and contradictions of racially heterogeneous societies in the Americas, from European conquest to the present. Topics: the social history of Native Americans, blacks, and Asians, their interactions with European settlers, and racial, sexual, and class divisions. 
Prerequisites: none.

ETHN 124. Asian American Literature (4)
(Cross-listed with LTEL 181.) Selected topics in the literature by men and women of Asian descent who live and write in the United States. May be repeated for credit when topics vary. 
Prerequisites: none.

ETHN 125. Asian American History (4)
(Cross-listed with HIUS 124.) Explore how Asian Americans were involved in the political, economic and cultural formation of United States society. Topics include migration; labor systems; gender, sexuality and social organization; racial ideologies and anti-Asian movements; and nationalism and debates over citizenship. 
Prerequisites: none.

ETHN 159. Topics in African American History (4)
(Cross-listed with HIUS 183.) A colloquium dealing with special topics in the history of people of African descent in the United States. Themes will vary from quarter to quarter. Requirements will vary for undergraduate, MA, and PhD students. Graduate students will be required to submit a more substantial piece of work. 
Prerequisites: none.

(Cross-listed with MUS 126.) This course will examine the development of the blues from its roots in work-songs and the minstrel show to its flowering in the Mississippi Delta to the development of urban blues and the close relationship of the blues with jazz, rhythm and blues, and rock and roll. 
Prerequisites: none.

ETHN 183. Gender, Race, Ethnicity, and Class (4)
(Cross-listed with CGS 114.) Gender is often neglected in studies of ethnic/racial politics. This seminar explores the relationship of race, ethnicity, class, and gender by examining the participation of working-class women of color in community politics and how they challenge mainstream political theory. 
Prerequisites: none.

HILA 103. Revolution in Modern Latin America (4)
A political, economic, and social examination of the causes and consequences of the Mexican, Cuban, and Nicaraguan revolutions. Also examine guerrilla movements that failed to gain power in their respective countries, namely the Shining Path in Peru, FARC in Colombia, and the Zapatistas in Mexico. 
Prerequisites: none.

HILA 121A. History of Brazil through 1889 (4)
This course covers many of the most transformative and fascinating social, political, and racial phenomena in Brazilian society through 1889, including indigenous life, Portuguese colonization, slavery and abolition, royal exile, independence and Empire, the birth of the Republic, war, social unrest, and ideals of modernization. 
Prerequisites: Completion of a college writing course.

REGIONAL SPECIALIZATION

HILA 123. The Incas and Their Ancestors (4)
The Incas called their realm Tahuantinsuyu (Land of the Four Quarters). But the Incas were only one of the many ethnic groups in the Andean region. Many different other groups became a part of the Tahuantinsuyu in the wake of Inca expansion. Over the past decade, new and fascinating information on these processes have been published and allow for a rereading of Inca history between 900 and 1535. 
Prerequisites: Completion of a college writing course.

HILA 131. A History of Mexico (4)
A century of Mexican history, 1821–1924: the quest for political unity and economic solvency, the forging of a nationality, the Gilded Age and aftermath, the ambivalent Revolution of Zapata and his enemies. 
Prerequisites: Completion of a college writing course.

HILA 169. Scholarship on Latin American History in the Twentieth Century (4)
Introduction to the historiography on Latin America for the twentieth century: agrarian reforms; unionization, industrialization by import substitution, the political left, social development, and international relations. Requirements will vary for undergraduate, MA, and PhD students. Graduate students are required to submit an additional research paper. 
Prerequisites: upper-division standing or consent of instructor; reading knowledge of Spanish; department stamp.

HIUS 103. The United States and the Pacific World (4)
This course reconsiders US history from a Pacific world perspective, from the eighteenth century to the present. Themes include comparative colonialism and empire; race, gender, and indigeneity; militarism and tourism; labor migration and resistance. 
Prerequisites: none.

HIUS 108B/ETHN 112B. History of Native Americans in the United States II (4)
This course examines the history of the Native Americans in the United States with emphasis on the lifeways, mores, warfare, cultural adaptation, and relations with the United States from 1870 to the present. 
Prerequisites: none.

HIUS 124/ETHN 125. Asian American History (4)
Explore how Asian Americans were involved in the political, economic, and cultural formation of United States society. Topics include migration; labor systems; gender, sexuality and social organization; racial ideologies and anti-Asian movements; and nationalism and debates over citizenship. 
Prerequisites: none.

LIGN 143. The Structure of Spanish (4)
Surveys aspects of Spanish phonetics, phonology, morphology, and syntax. Topics include dialect differences between Latin American and Peninsular Spanish (both from a historical and contemporary viewpoint), gender classes, verbal morphology, and clause structure. 
Prerequisites: LIGN 101 or consent of instructor.

LIGN 144. Discourse Analysis: American Sign Language and Performing Arts (4)
A discourse-centered examination of ASL verbal arts: rhyme, meter, rhythm, handedness, nonmanual signals, and spatial mapping; creation of scene and mood; properties of character, dialogue, narration, and voice; cultural tropes; poetic constructions in everyday genres; transcription, body memory and performance. 
Prerequisites: LISL 1C/1CX or consent of instructor.
THE AMERICAS AND MULTI-ETHNIC US (cont.)

LTAM 110. Latin American Literature in Translation (4)
Reading of representative works in Latin American literature with a view to literary analysis (form, theme, meaning), the developmental processes of the literature, and the many contexts: historical, social, cultural. Texts may be read in English. May be repeated for credit as topics vary. 
Prerequisites: none.

LTEN 181. Asian American Literature (4)
Selected topics in the literature by men and women of Asian descent who live and write in the United States. Repeatable for credit when topics vary. 
Prerequisites: none.

LTSP 130B. Development of Latin American Literature (4)
An introduction to major movements and periods in Latin American literature, centered on a study of key works from pre-Columbian to the present time. Texts will be seen within their sociohistorical context and in relation to main artistic trends of the period. This course fulfills the pre-1900 requirement for Spanish literature majors. 
Prerequisites: LTSP 50A or 50B or 50C, or consent of instructor.

LTSP 136. Andean Literatures (4)
Study of movements, traditions, key authors, or major trends in Peruvian, Ecuadorian, and Bolivian literatures, such as indigenismo, urban narrative, and the works of authors such as Vallejo, Icaza, Arguedas, Vargas Llosa. May be taken for credit two times as topics vary. 
Prerequisites: LTSP 50A or 50B or 50C, or consent of instructor.

LTSP 137. Caribbean Literature (4)
Study of movements, traditions, key authors, or major trends in Caribbean literature in Spanish, such as the romantic movement, the literature of independence, the essay tradition, Afro-Antillean literature, the historical novel. May be taken for credit four times as topics vary. 
Prerequisites: LTSP 50A or 50B or 50C, or consent of instructor.

LTSP 142. Latin American Short Story (4)
Readings and interpretation of the Latin American short story. Focus is primarily nineteenth and/or twentieth century. May be taken for credit two times as topics vary. 
Prerequisites: LTSP 50A or 50B or 50C, or consent of instructor.

LTSP 171. Studies in Peninsular and/or Latin American Literature and Society (4)
Focus on the interaction between literary expression and the study of society, covering issues such as the sociology of literature, the historical novel, literature and social change, the writer as the intellectual. May be taken for credit three times as topics vary. 
Prerequisites: LTSP 50A or 50B or 50C, or consent of instructor.

MUS 126. Blues: An Oral Tradition (4)
This course will examine the development of the Blues from its roots in work-songs and the minstrel show to its flowering in the Mississippi Delta to the development of Urban Blues and the close relationship of the Blues with Jazz, Rhythm and Blues, and Rock and Roll. (Cross-listed with ETHN 178.) 
Prerequisites: none.

MUS 137A. Jazz Theory and Improvisation (4)
Study of jazz theory and improvisation, focused on fundamental rhythmic, harmonic, melodic, and formal aspects of modern jazz style. Application of theoretical knowledge to instruments and concepts will be reinforced through listening, transcription work, and composition and improvisation exercises. First course of a yearlong sequence. 
Prerequisites: MUS 2A-B-C, proficiency exam, or consent of instructor.
**REGIONAL SPECIALIZATION**

**ASIA PACIFIC**

**ANSC 137. Chinese Popular Religion (4)**
The religious world of ordinary precommunist times, with some reference to major Chinese religious traditions. Recommended preparation: background in premodern Chinese history. **Prerequisites:** upper-division standing.

**CHIN 100AN. Third Year Chinese—Non-native speakers I (4)**
Intermediate course of Chinese for students with no background. First course of third year of one-year curriculum that focuses on listening, reading, and speaking. Emphasizing the development of advanced oral, written competence, and aural skills in Mandarin. Topics include education, literature, history of Chinese language and society. Students may not receive duplicate credit for both CHIN 111 and CHIN 100AN. **Prerequisites:** CHIN 23, CHIN 20CN, or department stamp.

**CHIN 186A. Readings in Chinese Economics, Politics, and Trade (4)**
Introduction to the specialized vocabulary and verbal forms relating to Chinese politics, trade, development and society. Designed for students in the social sciences or with career interests in international trade, the course will stress rapid vocabulary development, reading and translating. **Prerequisites:** CHIN 113, CHIN 100CN, CHIN 100CM, or department stamp.

**HIEA 112. Japan: From the Mid-Nineteenth Century through the US Occupation (4)**
Topics include the Meiji Restoration, nationalism, industrialization, imperialism, Taisho Democracy, and the Occupation. Special attention will be given to the costs as well as benefits of “modernization” and the relations between dominant and subordinated cultures and groups within Japan.

**HIEA 144. Topics in East Asian History (4)**
Selected topics in East Asian History. Course may be taken for credit up to three times as topics vary. **Prerequisites:** none

**JAPN 130A. Third-Year Japanese**
**Prerequisites:** previous course or consent of instructor.

**JAPN 135C. Japanese for Professional Purposes (4)**
Continuation of training in oral and written communication skills for professional settings in Japanese. Broad aspects of cultural issues in Japanese organizations are introduced and comparison of American and Japanese cultural business patterns will be conducted. **Prerequisites:** JAPN 135B.

**JAPN 140. Fourth-Year Japanese**
**Prerequisites:** previous course or consent of instructor.

**Linguistics/Heritage Languages (LIHL) 112F. Filipino for Filipino Speakers (4)**
For students who comprehend informal spoken Filipino but wish to improve their communicative and sociocultural competence and their analytic understanding. Language functions for oral communication, reading, writing, and family life/festivals; dialect and language style differences; structure and history of Filipino. May not receive credit for both LIHL112 and LIHL112F. Courses may be taken in any order.

**Linguistics/Heritage Languages (LIHL) 114F. Vietnamese for Vietnamese Speakers (4)**
For students who comprehend informal spoken Vietnamese but wish to improve their communicative and sociocultural competence and their analytic understanding. Language functions for oral communication, reading, writing, and family life/festivals; dialect and language style differences; structure and history of Vietnamese. LIHL 114F, LIHL 114W, and LIHL 114P may be taken in any order. **Prerequisites:** upper-division standing or consent of instructor; appropriate proficiency for level.

**Linguistics/Heritage Languages (LIHL) 115F. Korean for Korean Speakers (4)**
For students who comprehend informal spoken Korean but wish to improve their communicative and sociocultural competence and their analytic understanding. Language functions for oral communication, reading, writing, and family life/festivals; dialect and language style differences; structure and history of Korean. LIHL 115F, LIHL 115W, and LIHL 115P may be taken in any order. **Prerequisites:** upper-division standing or consent of instructor; appropriate proficiency for level.

**LITE 101. Readings in Contemporary Chinese Literature (4)**
Intended for students who have the competence to read contemporary Chinese texts, poetry, short stories, and criticism in vernacular Chinese. May be repeated for credit as topics vary.

**LITE 100C. Contemporary Chinese Poetry in Translation (4)**
A survey of Chinese poetic development from 1949 to the present.

**LITE 120C. Hong Kong Films (4)**
An examination of representative works of different film genres from Hong Kong. Priority may be given to Chinese studies majors and literature majors. Repeatable for credit when topics vary.

**LTKO 149. Readings in Korean Language History and Structure (4)**
This course is designed to develop cultural understanding and professional/academic level reading skill for students with coverage of materials on Korean language history from the fifteenth century to the present, previous and current writing systems, and Korean language structure. May be taken for credit three times as topics vary. **Prerequisites:** LTKO 3 or equivalent.

**POLI 113A. East Asian Thought in Comparative Perspective (4)**
This course examines the major traditions of East Asian thought in comparative perspective. Topics include Confucianism, Taoism, Buddhism, and contemporary nationalist and East Asian political thought. Throughout, focused comparisons and contrasts will be made between western and eastern thought. **Prerequisites:** upper-division standing.

**SOCI 123 Japanese Culture Inside/Out: A Transnational Perspective (4)**
We examine cultural production in Japan and abroad, national and transnational political-economic and social influences, the idea of Japan in the West, and the idea of the West in Japan. **Prerequisites:** upper-division standing.

**VIS 127C. Arts of Modern China (4)**
Course will explore Chinese art of the twentieth century. By examining artworks in different media, we will investigate the most compelling of the multiple realities that Chinese artists have constructed for themselves. Recommended preparation: VIS 21B. **Prerequisites:** upper-division standing.
### EURASIA

**LTEU 154. Russian Culture (4)**
An introduction to Russia's past and present through the cross-disciplinary study of literature, the visual and performing arts, social and political thought, civic rituals, popular entertainments, values and practices from 1825 to the present.

**LTRU 104B. Advanced Practicum in Russian: Analysis of Text and Film (4)**
Development of advanced skills in reading, writing, and conversation. Course based on written and oral texts of various genres and styles. Individualized program to meet specific student needs. May be taken twice for credit.

**LTRU 150. Russian Culture (4)**
An introduction to Russia's past and present through the cross-disciplinary study of literature, the visual and performing arts, social and political thought, civic rituals, popular entertainments, values and practices from 1825 to the present. **Prerequisites:** upper-division standing.

**TDAC 106. Chekhov Acting (4)**
Practical exercises, discussion, text analysis, and scene work on the writings of Anton Chekhov. Admission by audition/interview. **Prerequisites:** TDAC 102.

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### REGIONAL SPECIALIZATION

### EUROPE

**HIEU 102. Roman History (4)**
The course treats the history of Rome from the foundation of the city in the eighth century BC until the end of the Flavian dynasty in 96 AD. It focuses particularly on the political, social, and cultural elements that fueled Roman development and expansion. **Prerequisites:** none

This course will explore the history of nationalism as idea and political movement in European history, from the French Revolution to the present. **Prerequisites:** none

**HIEU 111. Europe in the Middle Ages (4)**
The development of European society and culture from 1050 to 1400. **Prerequisites:** none

**HIEU 116B. Greece and the Balkans in the Age of Nationalism (4)**
This course examines the history of Greece and the Balkans (1683–1914). Topics covered: social and economic development in the eighteenth century, nationalism, independence wars, state-nation formation, interstate relations, the Eastern Question, rural society, urbanization, emigration, and the Balkan Wars. Students may not get credit for both HIEU 116B and HIEU 117A. **Prerequisites:** none

**HIEU 122. Ancient Greece from the Bronze Age to the Peloponnesian War (4)**
This course treats the history of the Greek world from the Mycenaeans to the aftermath of the Peloponnesian War. It focuses on the rise of the polis, the development of the Athenian democracy and imperialism, and the Peloponnesian War. **Prerequisites:** none

**HIEU 127. Sport in the Modern World (4)**
This course looks at the phenomenon of sport in all of its social, cultural, political, and economic aspects. The starting point will be the emergence of modern sport in nineteenth-century Britain, but the focus will be global. Since the approach will be topical rather than chronological, students should already have a good knowledge of world history in the nineteenth and twentieth centuries. **Prerequisites:** none

**HIEU 154. Modern German History: From Bismarck to Hitler (4)**
An analysis of the volatile course of German history from unification to the collapse of the Nazi dictatorship. Focus is on domestic developments inside Germany as well as on their impact on European and global politics in the twentieth century. **Prerequisites:** none

**HIEU 160. Topics in Ancient Greek History (4)**
Selected topics in ancient Greek history. May be taken for credit three times. **Prerequisites:** upper-division standing and department approval required.

**HISC 107. The Emergence of Modern Science (4)**
The development of the modern conception of the sciences, and of the modern social and institutional structure of scientific activity, chiefly in Europe, during the eighteenth and nineteenth centuries. **Prerequisites:** none

**LIGN 143. The Structure of Spanish (4)**
Surveys aspects of Spanish phonetics, phonology, morphology, and syntax. Topics include dialect differences between Latin American and Peninsular Spanish (both from a historical and contemporary viewpoint), gender classes, verbal morphology, and clause structure. **Prerequisites:** LIGN 101 or consent of instructor.
MUS 120A. History of Music in Western Culture I (4)
First part of intensive historical, analytical, and cultural-aesthetic examination of music in Western culture from the ninth through the twenty-first centuries. Considers both sacred and secular repertoires, from Gregorian chant through early opera, c. 800–1600. Prerequisites: MUS 1C or 2C or passing grade on proficiency exam. Music majors should be enrolled concurrently in MUS 101A. Department stamp required for nonmajors. . Prerequisites: none

LTEU 140. The British Novel: 1790–1830 (4)
Studies in the early nineteenth-century novel, such as the novels of Austen, Wollstonecraft and/or Shelley, the Gothic novel, radical fiction of the 1790s. May be repeated up to three times for credit when topics vary. . Prerequisites: none

LTEU 154. Russian Culture (4)
An introduction to Russia's past and present through the cross-disciplinary study of literature, the visual and performing arts, social and political thought, civic rituals, popular entertainments, values and practices from 1825 to the present. . Prerequisites: none

LTEU 150. Russian Culture (4)
An introduction to Russia's past and present through the cross-disciplinary study of literature, the visual and performing arts, social and political thought, civic rituals, popular entertainments, values and practices from 1825 to the present. . Prerequisites: none

LTGK 104. Greek Prose (4)
Readings in Greek from ancient Greek prose. May be taken for credit four times as topics vary. Prerequisites: LTGK 1, 2, and 3.

LTGM 100. German Studies I: Aesthetic Cultures (4)
This course offers an overview of German aesthetic culture in its various forms (literature, film, art, music, and architecture) and methods of analysis. Materials will explore the diversity of aesthetic production from the eighteenth century to the present. . Prerequisites: none

LTIT 100. Introduction to Literatures in Italian (4)
Reading and discussion of selections from representative authors. Review of grammar as needed. May be repeated for credit three times when topics vary. Prerequisites: LTIT 50 or its equivalent, or consent of instructor, or a score of 5 on the AP Italian Language and Culture exam.

LTLA 100. Introduction to Latin Literature (4)
Reading and discussion of selections from representative authors of one or more periods. Review of grammar as needed. Prerequisites: LTLA 3 or equivalent.

LTRU 104B. Advanced Practicum in Russian: Analysis of Text and Film (4)
Development of advanced skills in reading, writing, and conversation. Course based on written and oral texts of various genres and styles. Individualized program to meet specific student needs. May be taken twice for credit. . Prerequisites: none

LTRU 150. Russian Culture (4)
An introduction to Russia's past and present through the cross-disciplinary study of literature, the visual and performing arts, social and political thought, civic rituals, popular entertainments, values and practices from 1825 to the present. Prerequisites: upper-division standing.

PHIL 100. Plato (4)
A study of Socrates and/or Plato through major dialogues of Plato. Possible topics include the virtues and happiness; weakness of the will; political authority and democracy; the theory of Forms and sensible flux; immortality; relativism, skepticism, and knowledge. May be repeated for credit with change of content and approval of instructor. Prerequisites: upper-division standing or consent of instructor.

PHIL 110. History of Philosophy: Ancient (4)
An examination of ancient Greek philosophy, focusing on major works of Plato and Aristotle. PHIL 10, PHIL 111, and PHIL 112 should be taken in order. Prerequisites: upper-division standing and department stamp or consent of instructor.

POLI 110A. Citizens and Saints: Political Thought from Plato to Augustine (4)
This course focuses on the development of politics and political thought in ancient Greece, its evolution through Rome and the rise of Christianity. Readings from Plato, Aristotle, Augustine, Machiavelli, and others. . Prerequisites: none

POLI 120G. British Politics (4)
Emphasis will be placed on the interaction between British political institutions and processes and contemporary policy problems: the economy, social policy, foreign affairs. The course assumes no prior knowledge of British politics and comparisons with the United States will be drawn. Prerequisites: none

SOCI 178. The Holocaust (4)
The study of the unique and universal aspects of the Holocaust. Special attention will be paid to the nature of discrimination and racism, those aspects of modernity that make genocide possible, the relationship among the perpetrators, the victims and the bystanders, and the teaching, memory, and denial of the Holocaust. Prerequisites: upper-division standing. Will not receive credit for SOCI 178 and SOCD 178.

VIS 122CN. Leonardo da Vinci in Context (4)
An in depth look at the art of Leonardo da Vinci with special emphasis on his training in Florence, interactions with Bramante, and the response to his work by Raphael. Prerequisites: upper-division standing.

VIS 158. Histories of Photography (4)
Photography is so ubiquitous a part of our culture that it seems to defy any simple historical definition. Accordingly, this course presents a doubled account of the medium; it explores both the historical and cultural specificity of a singular photography as well as some of the multitude of photographs that inhabit our world. Will examine a number of the most important photographic themes from the past two hundred years. Prerequisites: none.

Middle East

ANAR 116. Sea Level Change—The Israel Case in World Perspective (4)
This course provides students with a broad understanding of the most current sea level change research that has been conducted around the globe. Students will be introduced to the general terminology used in this field, coastal shallow marine and deep-sea sea level indicators, and their degree of uncertainty, along with corresponding dating methods. An emphasis will be given to sea-level studies conducted in Israel and neighboring lands. Prerequisites: upper-division standing.
HINE 119. US Mid-East Policy Post-WWII (4)
An examination of post-WWII Middle East conflicts, including the Israeli-Arab conflicts, the Lebanese Civil War, and the Gulf War of the 1980s. The roles of the superpowers and Middle Eastern states during the period.

HINE 186. Special Topics in Middle Eastern History (4)
Focused study of historical roots of contemporary problems in the Middle East: Islamic modernism and Islamist movements; contacts with the West; ethnic and religious minorities; role of the military; economic resources and development. Department stamp and permission of instructor.

Linguistics/Heritage Languages (LIHL) 117F. Persian for Persian Speakers (4)
For students who comprehend informal spoken Persian but wish to improve their communicative and sociocultural competence and their analytic understanding. Language functions for oral communication, reading, writing, and family life/festivals; dialect and language style differences; structure and history of Persian. LIHL 117F, LIHL 117W, and LIHL 117P may be taken in any order. Prerequisites: upper-division standing or consent of instructor; appropriate proficiency for level.

Linguistics/Heritage Languages (LIHL) 137F. Advanced Persian for Persian Speakers (4)
Instruction stresses language function required for advanced oral communication, reading, writing, and cultural understanding in professional contexts, with emphasis on domestic culture. High-level vocabulary and texts; dialect differences and formal language styles (registers). Advanced structural analysis and history of Persian. LIHL 137F, LIHL 137W, and LIHL 137P may be taken in any order. Prerequisites: upper-division standing or consent of instructor; appropriate proficiency for level. (Not offered in 2018–19.)