ANTHROPOLOGY

ADDS

- **ANTH 4340  APPLIED ANTH  3.0**
  Applied Anthropology. Prerequisite: Anth 1102 or Anth 2020 with grade of C or higher, or consent of instructor. This course examines historical, contemporary, and interdisciplinary perspectives of applied anthropology: a way of life and work informed by scientific and scholarly knowledge, expressed as socially responsible conduct, and defined by ethical principles and strategies of social reform. We will explore, evaluate, and critique (1) anthropologists' claims of a "new anthropology" concerned with the study of humanity at the service of humanity; (2) epistemological, theoretical, and methodological frameworks of applied anthropology across the sub-disciplines of archaeology, biological anthropology, sociocultural anthropology, and linguistics; and (3) empirical case studies of policy and practice.

- **ANTH 4850  GSU EXCH/NON-GSU STUDY ABROAD  3.0 to 9.0** *(Summer 2011 implementation approved)*
  GSU Exchange and Non-GSU Study Abroad. Prerequisite: Permission of faculty member in the Department of Anthropology at GSU. This course provides students with an opportunity to receive Anthropology credit hours in a study abroad program or field school, including GSU exchange programs (but not GSU faculty-led study abroad programs) and non-GSU programs. Students may receive credit for programs that involve travel to a society overseas that exposes them to anthropological perspectives and methods of studying and interpreting different ways or life and that provides them with experience in anthropological methods.

- **ANTH 6340  APPLIED ANTH  3.0**
  Applied Anthropology. Prerequisite: Limited to graduate students. This course examines historical, contemporary, and interdisciplinary perspectives of applied anthropology: a way of life and work informed by scientific and scholarly knowledge, expressed as socially responsible conduct, and defined by ethical principles and strategies of social reform. We will explore, evaluate, and critique (1) anthropologists' claims of a "new anthropology" concerned with the study of humanity at the service of humanity; (2) epistemological, theoretical, and methodological frameworks of applied anthropology across the sub-disciplines of archaeology, biological anthropology, sociocultural anthropology, and linguistics; and (3) empirical case studies of policy and practice.

- **ANTH 6850  GSU EXCH/NON-GSU STUDY ABROAD  3.0 to 9.0** *(Summer 2011 implementation approved)*
  GSU Exchange and Non-GSU Study Abroad. Prerequisite: Permission of faculty member in the Department of Anthropology at GSU. This course provides students with an opportunity to receive Anthropology credit hours in a study abroad program or field school, including GSU exchange programs (but not GSU faculty-led study abroad programs) and non-GSU programs. Students may receive credit for programs that involve travel to a society overseas that exposes them to anthropological perspectives and methods of studying and interpreting different ways or life and that provides them with experience in anthropological methods.
• ANTH 8020  GRAD PROF SEMINAR  1.0  (Fall 2011 implementation approved)
Graduate Professionalization Seminar. Prerequisite: Limited to graduate students in Anthropology unless otherwise permitted by instructor. This weekly seminar centers on graduate-level topics and skills in anthropology. Its primary aim is to provide a well-rounded supplement to the core graduate curriculum: to give graduate students a space in which to benefit from their peers and from scholars in GSU anthropology, GSU departments in related fields, or elsewhere in the greater Atlanta area. The course will include discussion of selected articles and book chapters from areas of interest; practice presentations of conference posters or defenses by interested students; invited guest lectures by local scholars; tutorials in literature research and other skills; and similar.

APPLIED LINGUISTICS

CHANGE

• AL 4161  TEACHING EFL II (Change title) - Teaching English as a Second Language II: Practicum and Classroom Practices.

ART & DESIGN

ADDS

• 3DS 3550  FIGURE AS CONCEPT  3.0 (1.0 lecture; 2.0 lab)
Figure as Concept: The Human Figure in Clay. Prerequisite: 3DS 3050 with a grade of C or higher, or permission of instructor. Students will work from a combination of live models and photographic imagery to create conceptually compelling sculpture that uses the human form as its basis. Observational skills will be emphasized in tandem with conceptual development.

• AE 4850  VISITING SCHOLAR SEMINAR  3.0
Visiting Scholar Seminar. Prerequisite: BFA Art Ed status, or permission of area coordinator. Specialized undergraduate course devoted to topics related to the Ernest G. Welch Visiting Scholar. The Visiting Scholar will be distinguished in his or her area of expertise and will teach on campus during his or her semester of residency.

• AE 6850  VISITING SCHOLAR SEMINAR  3.0
Visiting Scholar Seminar. Prerequisite: MA Ed status, or permission of area coordinator. Specialized graduate course devoted to topics related to the Ernest G. Welch Visiting Scholar. The Visiting Scholar will be distinguished in his or her area of expertise and will teach on campus during his or her semester of residency.

• AH 4850  VISITING SCHOLAR SEMINAR  3.0
Visiting Scholar Seminar. Prerequisite: BA or BFA status, or permission of area coordinator. Specialized undergraduate course devoted to topics related to the Ernest G. Welch Visiting Scholar. The Visiting Scholar will be distinguished in his or her area of expertise and will teach on campus during his or her semester of residency.
• AH 6850 VISITING SCHOLAR SEMINAR  3.0
Visiting Scholar Seminar. Prerequisite: MA status, or permission of area coordinator. Specialized graduate course devoted to topics related to the Ernest G. Welch Visiting Scholar. The Visiting Scholar will be distinguished in his or her area of expertise and will teach on campus during his or her semester of residency.

• ART 4850 VISITING ARTIST SEMINAR  3.0
Visiting Artist Seminar. Prerequisite: BFA status, or permission of area coordinator. Specialized undergraduate course devoted to topics related to the Ernest G. Welch Visiting Artist. The Visiting Artist will be distinguished in his or her area of expertise and will teach on campus during his or her semester of residency.

• ART 6850 VISITING ARTIST SEMINAR  3.0
Visiting Artist Seminar. Prerequisite: MFA status, or permission of area coordinator. Specialized graduate course devoted to topics related to the Ernest G. Welch Visiting Artist. The Visiting Artist will be distinguished in his or her area of expertise and will teach on campus during his or her semester of residency.

CHANGES

• 3DS 3300 SCULPTURE PROJECTS (Change prerequisites; Change description)
Sculpture Projects. Prerequisite: 3DS 3000 or 3DS 3100 with a grade of C or higher. Sculpture Projects is an intermediate-level course designed to build upon skills acquired in 3DS 3000 and 3DS 3100 and prepare students to enter Directed Study in sculpture. May be repeated for credit up to 8 hours. Lab Fee $120.00.

• 3DS 4500 DIRECTED STUDY IN SCULPTURE (Change prerequisites) – Prerequisites: 3DS 3000 or 3DS 3100 with a grade of C or higher, and at least one of 3DS 3300, 3DS 3600, 3DS 3700, 3DS 3800, and 3DS 3900 with grade of C or higher.

• 3DS 4940 SCULPTURE PORTFOLIO I (Change title)

• 3DS 4950 SCULPTURE PORTFOLIO II-CTW (Change title)

• GRD 3200 INTERMEDIATE GRAPHIC DESIGN (Change prerequisites) - Prerequisite: GrD 3000 with grade of C or higher. Student must have completed or be currently enrolled in GrD 3150 in order to enroll in this course.

• TEXT 8500 DIRECTED STUDY (Change title; Change description; Change credit hours) – 6.0 (3.0 to 9.0 lab)
Directed Study Seminar. Prerequisite: Consent of instructor. For Textiles majors and non-majors. Conceptual development in studio/seminar forum providing a variety of traditional and experimental approaches to textiles, mix-media, sculpture, and related professional experience development. May be repeated for a maximum of 24 credit hours.

DROPS

• 3DS 3200 FIGURE STUDIES IN SCULPTURE
## BIOLOGY

**ADDS**

- **BIOL 4011 PRINCIPLES OF PALEONTOLOGY  4.0 (2.0 lecture; 2.0 lab)**
  Principles of Paleontology. (Same as Geol 4011.) Prerequisite: Geol 1122K with grade of C or higher, or consent of instructor. Two lecture and two laboratory hours a week. An introduction to the principles of paleontology by examination of the fossil record, supplemented by study of selected examples of commonly preserved organisms. The use of fossils in paleoenvironmental reconstruction and biostratigraphic correlation will be stressed as well as morphology and systematics.

- **BIOL 4648 BIOGEOGRAPHY  4.0**
  Biogeography. (Same as Geog 4648.) Prerequisites: Geog 1112, Biol 1104K, or Biol 2108K with grades of B or higher, or consent of instructor. Spatial variations, processes, and environmental constraints influencing the distribution of life.

- **BIOL 6011 PRINCIPLES OF PALEONTOLOGY  4.0 (2.0 lecture; 2.0 lab)**
  Principles of Paleontology. (Same as Geol 6011.) Prerequisite: Geol 1122K, or consent of instructor. Two lecture and two laboratory hours a week. An introduction to the principles of paleontology by examination of the fossil record, supplemented by study of selected examples of commonly preserved organisms. The use of fossils in paleoenvironmental reconstruction and biostratigraphic correlation will be stressed as well as morphology and systematics.

- **BIOL 6648 BIOGEOGRAPHY  4.0**
  Biogeography. (Same as Geog 6648.) Prerequisites: Geog 1112, Biol 1104K, or Biol 2108K with grade of B or higher, or consent of instructor. Spatial variations, processes, and environmental constraints influencing distribution of life.

- **BIOL 8458 ADVANCED MICROBIAL ECOLOGY  4.0**
  Advanced Microbial Ecology. Prerequisites: Biol 3880 and Chem 4600 with grades of C or higher, or equivalent course work. Four lecture hours per week. Microbial interactions with their biotic and abiotic environments, with an emphasis on ecological principles, experimental approaches and current literature.

- **BIOL 8696 ADVANCED BIOTECHNIQUES LAB  4.0 (1.0 lecture; 3.0 lab)**
  Advanced Biotechniques Lab. Prerequisite: Consent of instructor. One lecture and six laboratory hours a week. Topics include gene cloning and expression, genomic sequencing and analysis, protein purification by AKTA FPLC, PCR and real-time quantitative PCR, transcriptome analysis by DNA microarrays, immunoblot, and proteomics.

## COMMUNICATION

**ADDS**

- **FILM 2900 LANGUAGE OF FILM THROUGH PROD  3.0**
  The Language of Film through Production. Introduction to time-based media production and analysis. Media production activities, lecture, screening and discussion. 3.0 credit hours.

- **FILM 4185 GLOBAL MEDIA AND CULTURE  3.0**
Global Media and Culture. Prerequisites: Film 1010 and Film 2700 with a grade of C or higher and an institutional GPA of 2.5 or higher. Critically examines the ideological, cultural, economic, social, political and industrial dimension of media globalization, drawing on examples from diverse geographical and cultural locations, and reviews the main theoretical debates shaping contemporary conversations about globalization, media and culture. 3.0 credit hours.

- **COMM 6385 CRITICAL VISUAL CULTURE THEORY 3.0**
  Critical Visual Culture Theory. Examines some of the major strands in Critical Theory that have contributed to institute the interdisciplinary field of Visual Culture Studies and the various theories of the image emerging from this field.

- **COMM 6430 MEDIA INDUSTRIES 3.0**
  Media Industries. Examines the historical, technological, economic, political, and social forces shaping the media industries and explores the range of established and emerging theoretical and methodological approaches employed in media industry analysis. 3.0 credit hours.

- **COMM 8385 CRITICAL VISUAL CULTURE THEORY 3.0**
  Critical Visual Culture Theory. Examines some of the major strands in Critical Theory that have contributed to institute the interdisciplinary field of Visual Culture Studies and the various theories of the image emerging from this field.

- **COMM 8430 MEDIA INDUSTRIES 3.0**
  Media Industries. Examines the historical, technological, economic, political, and social forces shaping the media industries and explores the range of established and emerging theoretical and methodological approaches employed in media industry analysis. 3.0 credit hours.

**CHANGES**

- **JOUR 3060 COMMUNICATION LAW & REGULATION (Change prerequisites)** - Prerequisite: Jour 2700 with grade of C or higher. Only students with an institutional GPA of 2.5 or higher are eligible to enroll in this course.

- **COMM 8120 MEDIA, INDIVIDUALS & SOCIETY (Change description)**
  Media, Individuals and Society. A doctoral seminar on theoretical foundations and new developments that address the linkages among mediated communication, individuals, and society. Examines media-related issues at the individual and interpersonal/intergroup levels. Begins with a historical overview and introduction to key issues in the field. Focuses on three broad approaches: media uses and effects, public campaigns and persuasion, and cultural studies.

**COMPUTER SCIENCE**

**ADDS**

- **CSC 8251 SENSOR WEB ARCH AND PROTOCOLS 4.0**
  Sensor Web Architecture and Protocols. Prerequisite: CSc 4220/6220. This course surveys the emerging field of sensor web system and its applications. The course will cover a broad range of topics, including system architectures, operating systems, radio communication, networking protocols, energy management, RFID, web services and its applications (such as smart environments and smart grid). It is a research-oriented course that includes reading and discussion of papers from the scientific literature. Students will be expected to understand the algorithms and protocols in the lecture and read and present several selected research papers. The students will also gain hands-on experience with sensor web system and testbed and learn how to design practical sensor web systems.
CHANGES

- CSC 3210 COMPUTER ORG & PROGRAMMING (Change prerequisites) - Prerequisites: CSc 2310 and CSc 2510 or Math 2420 with grades of C or higher.

- CSC 3410 DATA STRUCTURES-CTW (Change prerequisites) - Prerequisites: CSc 2310, Math 2211, and CSc 2510 or Math 2420 with grades of C or higher.

- CSC 4820 INTERACTIVE COMPUTER GRAPHICS (Change title; Change prerequisites; Change description)
  Interactive Computer Graphics. Prerequisite: CSc 2310 with grade of C or higher. This course covers interactive 3D computer graphics techniques such as geometry modeling, transformation, lighting, texture mapping, graphics processing unit, shader, and user interaction.

- CSC 4821 FUNDAMENTALS OF GAME DESIGN (Change prerequisites; Change description)
  Fundamentals of Game Design. Prerequisite: CSc 2310 with grade of C or higher. Covers major aspects of game design such as challenges, gameplay, actions, core mechanics, worlds, characters, game balancing, user interfaces, and game genres.

- CSC 6820 INTERACTIVE COMPUTER GRAPHICS (Change title; Change prerequisites; Change description)
  Interactive Computer Graphics. Prerequisite: CSc 2310. This course covers interactive 3D computer graphics techniques such as geometry modeling, transformation, lighting, texture mapping, graphics processing unit, shader, and user interaction.

- CSC 6821 FUNDAMENTALS OF GAME DESIGN (Change prerequisites; Change description)
  Fundamentals of Game Design. Prerequisite: CSc 2310. Covers major aspects of game design such as challenges, gameplay, actions, core mechanics, worlds, characters, game balancing, user interfaces, and game genres.

GEOSCIENCES

ADDS

- GEOG 2020 URBAN ENVIRONMENTS 4.0
  Urban Environments. Prerequisites: Geog 1112 and Geog 1113 strongly encouraged. This course will introduce students to the processes that characterize urban environments, including the social and physical process of urbanization, urban streams and water supplies, urban climates, pollution issues, urban soils, urban ecosystems, and the interpretation and analysis of the urban environment through remote sensing and the use of GIS (Geographic Information Systems).

CHANGES

Geosciences is merging the GEOG and GEOL prefixes for all graduate-level courses into a single GEOS prefix, as summarized in the chart below.

<table>
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<tr>
<th>Geosciences Prefix Change</th>
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<tr>
<td>Title</td>
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<td>ADV TOPICS PHYS &amp; HIST GEOLOGY</td>
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<td>HYDROGEOLOGY</td>
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<td>PRINCIPLES OF PALEONTOLOGY</td>
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<td>STRUCTURAL GEOLOGY</td>
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<td>CRYSTAL AND OPTICAL MINERALOGY</td>
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<td>IGNEOUS &amp; METAMORPHIC PETROLOGY</td>
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<td>ENVIRONMENTAL GEOLOGY</td>
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<td>TERRESTRIAL SEDIMENTS</td>
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<td>SEMINAR IN GEOLOGICAL SCIENCE</td>
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<td>TOPICS IN GEOGRAPHICAL SCIENCES</td>
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<td>BASIC FIELD GEOLOGY</td>
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<td>ADVANCED FIELD GEOLOGY</td>
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<td>GEOINFORMATICS</td>
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<td>DIGITAL CARTOGRAPHY</td>
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<td>QUANTITATIVE SPATIAL ANALYSIS</td>
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<td>INTRODUCTION TO REMOTE SENSING</td>
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<td>GEOGRAPHIC INFORMATION SYSTEMS</td>
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<td>ADVANCED WEATHER &amp; CLIMATE</td>
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<td>ENVIRONMENTAL CONSERVATION</td>
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<td>WATER RESOURCES MANAGEMENT</td>
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<td>POLITICAL GEOGRAPHY</td>
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<td>GEOGRAPHY INTERNSHIP</td>
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<td>APPLIED RESEARCH IN GIS</td>
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<td>GENERAL GEOLOGY FOR TEACHERS I</td>
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HISTORY

ADDS

- **HIST 3505 WESTERN POLITICAL THOUGHT I 3.0** *(Fall 2011 implementation approved)*
  Classical and Early Modern Western Political Thought. (Same as Phil 3855 and PolS 3530.) A survey of the historical writings in political thought from Plato to Machiavelli. Special emphasis on the contributions these thinkers made to Western conceptions of democracy, equality, human nature, citizenship, etc., as well as the continuing relevance of the texts for explaining contemporary political phenomena. 3.000 credit hours.

- **HIST 3525 WESTERN POLITICAL THOUGHT II 3.0** *(Fall 2011 implementation approved)*
  Modern Western Political Thought. (Same as Phil 3540 and Phil 3855.) A survey of the historical writings in political thought from Hobbes to Marx. Special emphasis on the contributions these thinkers made to Western conceptions of democracy, equality, human nature, citizenship, etc., as well as the continuing relevance of the texts for explaining contemporary political phenomena. 3.000 credit hours.

- **HIST 8665 CULTURAL LANDSCAPE PRES 3.0**
  Cultural Landscape Preservation. (No prerequisites or restrictions.) Cultural Landscape Preservation is a graduate level course in the Heritage Preservation Program (other graduate students may also register) designed to develop an understanding and vocabulary about cultural landscapes; articulate landscape preservation concepts through verbal and written mediums; understand techniques, processes, and policies related to the documentation and preservation of cultural landscapes; and work collaboratively to develop a Cultural Landscape Report.
CHANGES

- HIST 4270 TOPICS AFRICAN AMERICAN HIST. (Change title; Change description)
  Topics in African American History. Advanced studies in African American history; topics vary according to instructor. May be repeated if the topic differs.

- HIST 4855 SOCIAL MOVEMENTS IN HISTORY (Change title; Change description)
  Transnational Social Movements in Historical Perspective. Exploration of the historical development and interplay of transnational social movements and advocacy networks since the eighteenth century. Topics may include, but are not limited to, abolitionism, anticolonialism, environmentalism, feminism, pacifism, Pan Africanism, and socialism. May be repeated if topics vary.

- HIST 7045 INTRO TO GRADUATE STUDIES (Change title; Change description)
  Introduction to Graduate Studies. A general introduction to the professional practices in the history discipline, designed for graduate students who are not pursuing careers in teaching. Required of all candidates for graduate degrees in history, except those who complete Hist 7050. Recommended to be taken in the first year of residence if possible. A grade of B+ is required of all M.A. and Ph.D. candidates.

- HIST 7050 INTRO TO GRAD STUDIES/PEDAGOGY (Change title)

- HIST 8630 THE AMERICAN BUILT ENVIRONMENT (Change credit hours) – 3.0

- HIST 8740 MATERIAL CULTURE (Change credit hours) – 3.0

MATHEMATICS & STATISTICS

CHANGES

- MATH 4767 STATISTICAL COMPUTING (Change description)
  Statistical Computing. Prerequisites: Math 4752 or Math 4548, and Math 3435 with grades of C or higher and the ability to program in a high-level language. Computational implementation of statistical methods such as descriptive statistics and graphs, testing for normality, one and two sample tests, Wilcoxon rank sum tests, Wilcoxon signed rank tests, basic regression and analysis of variance (ANOVA). Standard statistical packages (SAS) will be used as well as user-written programs. 3.0 credit hours.

- MATH 6767 STATISTICAL COMPUTING (Change description)
  Statistical Computing. Prerequisites: Math 4752/6752 or Math 4548/6548, and Math 3435 with grades of C or higher and the ability to program in a high-level language. Computational implementation of statistical methods such as descriptive statistics and graphs, testing for normality, one and two sample tests, Wilcoxon rank sum tests, Wilcoxon signed rank tests, basic regression and analysis of variance (ANOVA). Standard statistical packages (SAS) will be used as well as user-written programs. 3.0 credit hours.

- STAT 8694 TOPICS IN BIOSTATISTICS (Change credit hours) – 3.0 (2.0 lecture; 1.0 lab)

MODERN & CLASSICAL LANGUAGES

ADDS

- FREN 4990 INDEPENDENT STUDY  1.0 to 4.0
  Independent Study - Special Topics for Majors. Prerequisites: Completion of at least two 3000-level French courses with a grade of C or higher and consent of the instructor. For French majors with a grade point average of 3.0 or better in major courses and all course work. No more than four credit hours may be applied toward the major. Special topics readings and/or research to be determined in consultation with the instructor.
- **FREN 6990  INDEPENDENT STUDY  1.0 to 4.0**  
  Independent Study - Special Topics. Prerequisite: Consent of the instructor. For French M.A. students. No more than four credit hours may be applied toward the degree. Special topics readings and/or research to be determined in consultation with the instructor.

- **GRMN 4990  INDEPENDENT STUDY  1.0 to 4.0**  
  Independent Study - Special Topics for Majors. Prerequisites: Completion of at least two 3000-level German courses with a grade of C or higher and consent of the instructor. For German majors with a grade point average of 3.0 or better in major courses and all course work. No more than four credit hours may be applied toward the major. Special topics readings and/or research to be determined in consultation with the instructor.

- **GRMN 6990  INDEPENDENT STUDY  1.0 to 4.0**  
  Independent Study - Special Topics. Prerequisites: Consent of the instructor. For German M.A. students. No more than four credit hours may be applied toward the degree. Special topics readings and/or research to be determined in consultation with the instructor.

- **ITAL 4990  INDEPENDENT STUDY  1.0 to 4.0**  
  Independent Study - Special Topics for Majors. Prerequisites: Completion of at least two 3000-level Italian courses with a grade of C or higher and consent of the instructor. For Italian majors with a grade point average of 3.0 or better in major courses and all course work. No more than four credit hours may be applied toward the major. Special topics readings and/or research to be determined in consultation with the instructor.

- **JAPN 4990  INDEPENDENT STUDY  1.0 to 4.0**  
  Independent Study - Special Topics for Majors. Prerequisites: Completion of at least two 3000-level Japanese courses with a grade of C or higher and consent of the instructor. For Asian Studies majors with a grade point average of 3.0 or better in major courses and all course work. No more than four credit hours may be applied toward the major. Special topics readings and/or research to be determined in consultation with the instructor.

- **LATN 4990  INDEPENDENT STUDY  1.0 to 4.0**  
  Independent Study - Special Topics for Majors. Prerequisites: Completion of at least two 3000-level Latin courses with a grade of C or higher and consent of the instructor. For Classics majors with a grade point average of 3.0 or better in major courses and all course work. No more than four credit hours may be applied toward the major. Special topics readings and/or research to be determined in consultation with the instructor.

- **SPAN 4990  INDEPENDENT STUDY  1.0 to 4.0**  
  Independent Study - Special Topics for Majors. Prerequisites: Completion of at least two 3000-level Spanish courses with a grade of C or higher and consent of the instructor. For Spanish majors with a grade point average of 3.0 or better in major courses and all course work. No more than four credit hours may be applied toward the major. Special topics readings and/or research to be determined in consultation with the instructor.

- **SPAN 6990  INDEPENDENT STUDY  1.0 to 4.0**  
  Independent Study - Special Topics. Prerequisites: Consent of the instructor. For Spanish M.A. students. No more than four credit hours may be applied toward the degree. Special topics readings and/or research to be determined in consultation with the instructor.

**DROPS**

- **FORL 3031  LANGUAGE IN SOCIETY**
- **FORL 4151  CULTURE/LANGUAGE LEARNING**
MIDDLE EAST INSTITUTE

ADDS

- MES 4240 MIDDLE EAST IN WORLD AFFAIRS 3.0
  Middle East in World Affairs. (Same as PolS 4423.) Prerequisite (recommended): PolS 3400 or PolS 4260. International relations of the Middle East (West Asia and North Africa), combining IR theory and the perspectives of policymakers and other actors of the region.

MUSIC

CHANGES

- MUS 4011 SINGING IN ITALIAN & LATIN (Change title; Change description)
  Singing in Italian and Latin. Two lab classes per week. Developing the ability to pronounce the Italian and Latin languages on sight through the study of the International Phonetic Alphabet and its application to Italian vocal literature as well as vocal literature in Latin.

- MUS 4791 ADV JAZZ IMPROV II. (Change prerequisites) – Prerequisite: Mus 4790 with a grade of C or higher.

- MUS 8120 GRAD SUPERVISED INTERNSHIP (Change credit hours) – 3.0 to 9.0

NEUROSCIENCE

ADDS

- NEUR 2500 NEUROBIOLOGY AND BEHAVIOR 2.0
  Introduction to Neurobiology and Behavior. Prerequisites: Biol 1104K, Biol 1108K, or Biol 2108K, and Chem 1212K, all with grades of C or higher. Two lecture hours per week. An introduction to the neural basis of behavior in animals, emphasizing animal models and clinical approaches to demystify how the nervous system works. An Area F elective for Neuroscience Majors.

- NEUR 3000 PRINCIPLES OF NEUROSCIENCE 4.0
  Principles of Neuroscience. Prerequisites: Biol 2108K and Chem 1212K with a C or better. 4 lecture hours per week. Comprehensive basis for understanding brain research, major discoveries in neuroscience, and the methods employed for those achievements. Topics include the neural basis of learning and memory, sensory perception, motor control, neurological diseases, drug action, and behavior. Required for Neuroscience majors.

- NEUR 3010 NEUROSCIENCE LABORATORY 4.0 (1.0 lecture; 3.0 lab)
  Neuroscience Laboratory. Pre- or corequisites: Neur 3000 and Math 2201 or Math 2202, or any comparable higher-level math, with grades of C or higher. Two lecture and six laboratory hours a week. Laboratory techniques in neuroscience, including intra- and extracellular electrophysiology, computational methods, molecular and cellular neuroscience, neuroanatomy, immunocytochemistry, and neuroethology. Required for Neuroscience majors. 4.000 credit hours.

- NEUR 3020 SCIENTIFIC METHOD IN NEUR-CTW 4.0
  The Scientific Method in Neuroscience-CTW. Prerequisite: Neur 3000 with a grade of C or higher. Provides experience in research design, data analysis and written scientific communication needed for advanced neuroscience courses. Assignments emphasize the student’s ability to express critical thinking through writing. Required for Neuroscience majors. Serves as one of two Critical Thinking through Writing (CTW) courses required of all Neuroscience majors. 4.000 credit hours.
• **NEUR 4010  CELL & MOLECULAR NEUROSCIENCE  4.0**
  Cellular and Molecular Neuroscience. Prerequisite: Neur 3000 with a grade of C or higher. Topics include excitable membranes and cells, ion channels, synaptic transmission and plasticity, ion channels and receptors, neural development, and axon guidance. An elective for Neuroscience majors. 4.000 credit hours.

• **NEUR 4030  COMPUTATIONAL NEUROSCIENCE  4.0**
  Computational Neuroscience. Prerequisites: Neur 3000, Math 2201, Math 2202, Phys 2211K, and Phys 2212K with grades of C or better. A project-based course giving maximal exposure to model building and hypothesis testing. Each student will keep an electronic laboratory journal of simulation results, describing the scientific question, the model used, the specific simulations, including all parameter values, the results, analysis and interpretation. Each student will make 4 presentations of their work, one in each area covered during the course. An elective for Neuroscience majors.

• **NEUR 4040  NEUROETHOLOGY  4.0**
  Neuroethology. Prerequisite: Neur 3000 or Biol 4102, or equivalent, with a grade of C or higher. Four lecture hours per week. The neural basis of behavior from an ethological perspective. The course will cover discoveries, techniques, and concepts underlying neuroethological research. Developmental, evolutionary and comparative approaches are emphasized. An elective for Neuroscience majors.

• **NEUR 4050  STATISTICS FOR NEUROSCIENCE  3.0**
  Statistics for Neuroscience. Prerequisite: Neur 3000 or Biol 4010, or equivalent, with a grade of C or higher. This course provides an advanced review of descriptive and inferential statistics as applied to neuroscience research questions. Topics include hypothesis-testing statistics, complex (multi-factor) designs, correlation, regression, multivariate methods and some non-parametric treatments. An elective for Neuroscience majors. 3.000 credit hours.

• **NEUR 4100  DEVELOPMENTAL NEUROBIOLOGY  4.0**
  Developmental Neurobiology. Prerequisite: Biol 3800 or equivalent with a grade of C or higher. Four lecture hours per week. Introduction to the development of the nervous system. Covers the field of developmental neurobiology from neural induction to the modification of neuronal connections in the adult nervous system and uses a variety of model organisms to demonstrate the rules by which nervous systems develop. An elective for Neuroscience majors. 4.000 credit hours.

• **NEUR 4110  PHYSIOLOGICAL PSYCHOLOGY  3.0**
  Physiological Psychology. (Same as Psyc 4110.) Prerequisites: Psyc 3510 and Psyc 3530 and Psyc 1101 or Psyc 1100 with grades of C or higher, or equivalents. Explores the relations between biological and mental processes. Nervous system functions in the control of behavior are emphasized. The anatomy, physiology, and chemistry of the nervous system are reviewed, and the scientific analysis of the relations of these biological processes to psychological phenomena is presented. Evidence from research involving both the physiological manipulation of animal models and the accidental and pathological alterations of humans included. An elective for Neuroscience Majors. 3.000 credit hours.

• **NEUR 4115  MEDICAL NEUROANATOMY  4.0**
  Medical Neuroanatomy. Prerequisite: Biol 3840 with a grade of C or higher, or equivalent. Four lecture hours per week. Human brain and spinal cord functional neuroanatomy and associated pathologies. Elective for Neuroscience majors. 4.000 credit hours.

• **NEUR 4150  DRUGS AND THE NERVOUS SYSTEM  3.0**
  Drugs and the Nervous System. Prerequisites: Psyc 1100 and Psyc 2050 with grades of C or higher, or consent of instructor. This course provides an in-depth and advanced exploration of the neuronal and chemical mechanisms underlying psychoactive drug action as well as compulsive drug usage. The focus will be both on
drugs of abuse as well as pharmacological interventions in neural/behavioral disorders. An elective for Neuroscience majors. 3.000 credit hours.

- **NEUR 4420 HORMONES AND BEHAVIOR 4.0**
  Hormones and Behavior. (Same as Psyc 4630.) Prerequisite: Biol 3840 with grade of C or higher, or equivalent. Four lecture hours per week. Interaction of nervous and endocrine systems in the control of animal behavior, including humans, with emphasis on the mechanisms that adapt behavior to the changing physical and social environments. An elective for Neuroscience majors. 4.000 credit hours.

- **NEUR 4700 NEURAL PLASTICITY**
  Neural Plasticity. Prerequisite: Neur 4010 or Biol 4102, or equivalent, with a grade of C or higher. Four lecture hours per week. Phenomenology and mechanisms of experience-dependent changes in the nervous system. The course will examine plasticity at many levels of analysis, from synaptic mechanisms to clinical strategies, and from molecular neuroscience to cognitive psychology. An elective for Neuroscience majors. 4.000 credit hours.

- **NEUR 4910 TOPICS IN NEUROSCIENCE-CTW 4.0**
  Topics in Neuroscience-CTW. Prerequisite: Neur 3000, Neur 3010, and Neur 3020 with grades of C or better. An in-depth treatment of a specific topic in neuroscience, using this topic to develop skills in research design, data analysis, and written communication of results, emphasizing students' ability to express critical thinking through writing. Required for Neuroscience majors. Serves as one of two Critical Thinking through Writing (CTW) courses required of all Neuroscience majors.

- **NEUR 4980 UNDERGRAD NEUROSCIENCE RESEARCH 1.0 to 5.0**
  Undergraduate Research in Neuroscience. Prerequisites: Neur 3000, Neur 3020, and three additional hours of neuroscience courses with grades of C or higher, and the consent of the instructor. Independent laboratory investigation of common interest to student and instructor. May be repeated once. For Neuroscience majors and minors. Up to 3 hours can satisfy neuroscience-related elective requirements.

- **NEUR 6030 COMPUTATIONAL NEUROSCIENCE 4.0**
  Computational Neuroscience. Prerequisites: Neur 3000, Math 2201, Math 2202, Phys 2211K, and Phys 2212K, or equivalent. A project-based course giving maximal exposure to model building and hypothesis testing. Each student will keep an electronic laboratory journal of simulation results, describing the scientific question, the model used, the specific simulations, including all parameter values, the results, analysis and interpretation. Each student will make 4 presentations of their work, one in each area covered during the course.

- **NEUR 6040 NEUROETHOLOGY 4.0**
  Neuroethology. Prerequisite: Neur 3000, Biol 4102, Neur 6010, or Biol 6102, or equivalent. Four lecture hours per week. The neural basis of behavior from an ethological perspective. The course will cover discoveries, techniques, and concepts underlying neuroethological research. Developmental, evolutionary and comparative approaches are emphasized. An elective for Neuroscience graduate students. 4.000 credit hours.

- **NEUR 8240 GRADUATE NEUROENDOCRINOLOGY 3.0**
  Graduate Neuroendocrinology. Prerequisites: Neur 8010, Neur 8020, and Neur 8030 with grades of B or higher. Three lecture hours per week. This course aims to provide the student with an overview of Neuroendocrinology at the graduate level. Hormone synthesis and mechanisms of action, as well as advanced principles regarding how hormones interact with the nervous system to influence behavior will be emphasized. Class studies in the field plus current research and techniques will be included. 3.000 credit hours.

- **NEUR 8380 COMPUTATIONAL NEUROSCIENCE 3.0**
  Computational Neuroscience. Prerequisite: Math 2211, Biol 4102, or Neur 8010 with grades of B or higher, or equivalent, or consent of instructor. Three lecture hours per week. Realistic modeling dynamics of neurons and neuronal networks with emphasis on testing data-driven hypotheses. Topics include modeling intracellular
calcium dynamics, voltage dependent channels, synapses, activity of neurons, and synchronization regimes of neuronal networks. 3.000 credit hours.

PHILOSOPHY

ADDs

- PHIL 8989 PROSEMINAR IN NEUROPHILOSOPHY 3.0

Proseminar in Neurophilosophy. Lecture-series based on research at the intersection of neuroscience and philosophy. Speakers include GSU researchers as well as philosophers and scientists from other universities. Among the fields represented are neurobiology, cognitive neuroscience, behavioral neuroscience, neuropsychology, philosophy of mind, and philosophy of science. Topics may include, among others: neural substrates of consciousness, localization of function, modularity of mind, and philosophical controversies in the empirical study of the mind/brain. Required of all graduate students in the neurophilosophy track each time it is offered. Hours earned in this course do not count toward degree requirements.

CHANGES

- PHIL 4740 BIOMEDICAL ETHICS (Change title)
- PHIL 6740 BIOMEDICAL ETHICS (Change title)

Philosophy added or updated the repeatability policy for 3000-, 4000-, 6000-, and 8000-level courses by including this phrase in the course descriptions: “May be repeated but only if content varies. A maximum of six credit hours may be applied toward the major.”

This policy was added or updated on all of the following Philosophy courses.

- PHIL 3855, 3900
- PHIL 4010, 4020, 4030, 4050, 4055, 4060, 4075, 4095, 4150, 4690, 4740, 4750, 4822, 4855, 4890, 4900, 4950
- PHIL 6010, 6020, 6030, 6040, 6050, 6055, 6060, 6075, 6085, 6090, 6095, 6150, 6350, 6690, 6740, 6750, 6855, 6890, 6900, 6990
- PHIL 8000, 8030, 8050, 8060, 8090, 8100, 8130, 8300, 8330, 8340, 8530, 8600, 8700, 8740, 8780, 8810, 8820, 8855, 8870, 8950

DROPS

- PHIL 3740 BIOMEDICAL ETHICS
- PHIL 8390 PROSEMINAR IN NEUROPHILOSOPHY

POLITICAL SCIENCE

CHANGES

- POLS 8299 NEW BOOKS IN COMP POLITICS (Change title)
**RELIGIOUS STUDIES**

**ADDS**

- **RELS 3060 RELIGION AND SCIENCE 3.0**
  Religion and Science. Explores contemporary perspectives on the relation between religion and science as well as historical conflicts that arose over new forms of scientific knowledge. Topics may include the Galileo controversy, debates about Newtonian physics, conflicts between creationism and evolution, scientific studies of prayer and the afterlife, and recent advancements in biomedical research.

- **RELS 3200 INDIGENOUS RELS OF AMERICAS 3.0**
  Indigenous Religions of the Americas. Explores indigenous American religions through a series of themes that link several geo-cultural groups that span and represent native North, Meso- and South America. Examines themes such as creation, land, language, ritual, performance and material culture in historical and contemporary cultures native to the Americas, including the Mexica-Aztec, Maya, Inca, Southeastern Ceremonial Complex, Navajo, Lakota (Sioux), Ojibwe (Anishinaabeg) and other.

- **RELS 3600 GREEK MYTHOLOGY 3.0**
  Greek Mythology. The course is designed to provide a survey of Classic Greek mythology as embedded primarily in the Homeric poems, and then to explore the subsequent history of transformative adaptation, contestation, conscious appropriation, or outright rejection of that tradition in subsequent historical periods. Structuring the course in this way will permit surprising connections, such as viewing Socrates and Jesus as mythic figures; viewing the New Testament as a chapter in the history of Greek literature; viewing Roman adaptations as more creative and less crudely imitative than is normally allowed; and looking at the Classical rediscovery among several prominent African-American and Afro-Caribbean writers.

- **RELS 4140 RELIGION AND LAW 3.0**
  Religion and American Law. Explores the intersection of religion and American law, focusing on First Amendment jurisprudence. Topics include religion and public schools, government funding for religious institutions, public religious monuments, and the free exercise of religion. Also may consider the historical origins of religious freedom, the role of law in religion, religion's position in American public life, and alternative legal frameworks.

- **RELS 4890 RELIGION ON-SITE IN ATLANTA 3.0**
  Religion On-site in Atlanta. Introduces students to various local sites that express religious communities' traditions and practices in Atlanta. Provides instruction to students at local sites integrated with lectures and readings that explore the history and diversity of Atlanta's religious communities. Students will learn from on-site lectures presented by lead and guest instructors; from relevant historical documents; and from contemporary literature (secondary scholarship, relevant websites and blogs, community-published material). Students will be trained to integrate information from these sources and analyze them from an academic, critical perspective.

- **RELS 6140 RELIGION AND LAW 3.0**
  Religion and American Law. Explores the intersection of religion and American law, focusing on First Amendment jurisprudence. Topics include religion and public schools, government funding for religious institutions, public religious monuments, and the free exercise of religion. Also may consider the historical origins of religious freedom, the role of law in religion, religion's position in American public life, and alternative legal frameworks.

- **RELS 6890 RELIGION ON-SITE IN ATLANTA 3.0**
  Religion On-site in Atlanta. Introduces students to various local sites that express religious communities' traditions and practices in Atlanta. Provides instruction to students at local sites integrated with lectures and readings that explore the history and diversity of Atlanta's religious communities. Students will learn from on-
site lectures presented by lead and guest instructors; from relevant historical documents; and from contemporary literature (secondary scholarship, relevant websites and blogs, community-published material). Students will be trained to integrate information from these sources and analyze them from an academic, critical perspective.