I. Welcome

II. Approval of CUSA Minutes from November 13, 2012

III. Chair’s Report
   a. Welcome and Address by Dean Anderson
   b. Proposed semester break meetings

IV. Dean’s Office Report

V. CLA&S Student Academic Services Report

VI. Subcommittee Chair Reports
   a. Advising and Awards
   b. Curricular Changes/Degree Requirements
      i. Curricular Changes for Approval:
         1. NEW COURSES: GERM 315, GERM 316, GERM 375, GERM 401, GERM 402, GERM 335, GERM 475, GERM 501, GERM 550, GERM 560, GERM 575, GERM 580, GERM 598, GERM 599, KICH 110, KICH 114, KICH 230, KICH 234, KQKL 110, KQKL 114, KQKL 230, KQKL 234, PHIL 557, REL 365, PHSX 216, PHSX 236.
      ii. Degree Requirements for Approval:
          1. Germanic Languages & Literatures – change to existing major
          2. Germanic Languages & Literatures – change to existing minor
3. Human Sexuality – New Major – housed in the Women, Gender and Sexuality Studies department
4. Visual Art BFA – Change to Existing Major
5. Film and Media Studies – Change to Existing Major Admission Requirements
6. Biology – Change to Major Admission Requirements
7. BA and BS Biochemistry – Change to Existing Major
8. The Following are all related to the PHSX 211/216 and PHSX 212/236 changes:
   a. BA and BS Physics – Change to Existing Major
   b. Physics – Change to Existing Major
   c. BA and BS Astronomy – Change to Existing Major
   d. Astronomy – Change to Existing Major
   e. BS Atmospheric Science – Change to Existing Major
   f. Atmospheric Science – Change to Existing Major
   g. BA and BS Biochemistry – Change to Existing Major
   h. BA and BS Biology – Change to Existing Major
   i. BA Human Biology – Change to Existing Major
   j. BA and BS Microbiology – Change to Existing Major
   k. BS Molecular Biosciences – Change to Existing Major
   l. BA and BS Chemistry – Change to Existing Major
   m. Chemistry – Change to Existing Major
   n. BS Geography – Change to Existing Major
   o. BA and BS Geology – Change to Existing Major

VII. Old Business:
   a. Review work of Ad-Hoc Subcommittee (standard process submissions)
   b. Bachelor of Arts Requirements
      i. Laboratory Experience Requirement
      ii. Foreign Language Requirement

VIII. New Business:
   a. Capstone courses

IX. Adjournment
b. Curricular Changes/Degree Requirements

i. Curricular Changes for Approval/Motion to File

**AFRICAN & AFRICAN-AMERICAN STUDIES**

**CHANGE: NEW REQUEST TO CROSS-LIST**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Description</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>AAAS 536</td>
<td>ISLAMIC ART AND ARCHITECTURE IN AFRICA  3  H</td>
<td></td>
<td>Study of Islamic art and architecture in various cultural and geographical settings, from the first mosques of North African and the Swahili coast to contemporary Islamized masquerades in West Africa. We consider art objects and architectural sites in terms of religious practice, trade and commerce, ritual and political power, and contemporary expression. Prerequisite: AAAS 102, AAAS 103, HA 100, or HA 150; or permission of instructor.</td>
<td>LEC</td>
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**VISUAL ART**

**CHANGE: CREDIT**

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ART 540</td>
<td>PROFESSIONAL ACTIVITIES SEMINAR  1</td>
<td></td>
<td>Comprehensive development of skills and strategies needed to pursue a career as a professional studio artist. Graded on satisfactory/unsatisfactory basis. Prerequisite: Twenty-four hours of departmental electives or permission of instructor.</td>
<td>LEC</td>
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**CHANGE: CREDIT**

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<tbody>
<tr>
<td>ART 695</td>
<td>DIRECTED STUDY I  4-5</td>
<td></td>
<td>Individual studio activity under direction of faculty advisor; capstone experience. Prerequisite: Thirty hours of departmental electives, consent of department, and permission of instructor.</td>
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**CHANGE: CREDIT**

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<tbody>
<tr>
<td>ART 696</td>
<td>DIRECTED STUDY II  5</td>
<td></td>
<td>Continuation of ART 695; capstone experience. May be repeated for credit in subsequent semesters. Prerequisite: ART 695 and permission of instructor.</td>
<td>IND</td>
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<tr>
<td>ART 696</td>
<td>DIRECTED STUDY II  4</td>
<td></td>
<td>Continuation of ART 695; capstone experience. May be repeated for credit in subsequent semesters. Prerequisite: ART 695 and permission of instructor.</td>
<td>IND</td>
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ASTRONOMY

CHANGE: COURSE DESCRIPTION
ASTR 391 PHYSICAL ASTRONOMY 3 N
(OLD) An honors, calculus-based introduction to astronomy and astrophysics, required for astronomy majors. Components of the Universe - from planetary systems, stellar systems, large scale structure and cosmology - are examined to illuminate the physics principles which govern their evolution. Not open to students with prior credit in ASTR 191 or ASTR 291. Prerequisite: MATH 121, and either permission of instructor, or participation in the University Honors Program.

ASTR 391 PHYSICAL ASTRONOMY 3 N
(NEW) An honors, calculus-based introduction to astronomy and astrophysics, required for astronomy majors. Components of the Universe - from planetary systems, stellar systems, large scale structure and cosmology - are examined to illuminate the physics principles which govern their evolution. Prerequisite: MATH 121, and either permission of instructor, or participation in the University Honors Program.

CHANGE: PREREQUISITE
ASTR 591 STELLAR ASTRONOMY 3 N
(OLD) Fundamentals of stellar astronomy including astronomical optics and techniques, coordinate and time systems, stellar spectroscopy, properties of normal, binary and variable stars. Prerequisite: PHSX 212. An introductory astronomy course is desirable. LEC

ASTR 591 STELLAR ASTRONOMY 3 N
(NEW) Fundamentals of stellar astronomy including astronomical optics and techniques, coordinate and time systems, stellar spectroscopy, properties of normal, binary and variable stars. Prerequisite: PHSX 212 and PHSX 236. An introductory astronomy course is desirable. LEC

CHANGE: COURSE DESCRIPTION AND CREDIT
ASTR 596 OBSERVATIONAL ASTROPHYSICS 1 N
(OLD) Students acquire practical experience with astronomical equipment and data reduction techniques used in research and educational contexts. Prerequisite or corequisite: ASTR 591.

ASTR 596 OBSERVATIONAL ASTROPHYSICS 2 N
(NEW) Students acquire practical experience with astronomical equipment and data reduction techniques used in research and educational contexts. ASTR 596, combined with an independent research experience, provides a pathway for students to demonstrate creativity and integration of background knowledge. Prerequisite or corequisite: ASTR 591.

ATMOSPHERIC SCIENCE

CHANGE: PREREQUISITE
ATMO 640 DYNAMIC METEOROLOGY 3 N
(OLD) This course introduces the student to the fundamentals of fluid dynamics necessary for understanding large scale atmospheric motions. Fundamental physical laws of conservation of mass, momentum and energy are examined and applied to atmospheric flows. Rotation in the atmosphere is examined quantitatively in terms of both circulation and vorticity. Prerequisite: MATH 223 and PHSX 212. This course introduces the student to the fundamentals of fluid dynamics necessary for understanding large scale atmospheric motions. Fundamental physical laws of conservation of mass, momentum and energy are examined and applied to atmospheric flows.
flows. Rotation in the atmosphere is examined quantitatively in terms of both circulation and vorticity. Prerequisite: MATH 223 and PHSX 212.

ATMO 640  DYNAMIC METEOROLOGY  3 N
(NEW) This course introduces the student to the fundamentals of fluid dynamics necessary for understanding large scale atmospheric motions. Fundamental physical laws of conservation of mass, momentum and energy are examined and applied to atmospheric flows. Rotation in the atmosphere is examined quantitatively in terms of both circulation and vorticity. Prerequisite: MATH 223 and PHSX 214 or PHSX 212 and PHSX 236.

CHANGE: PREREQUISITE
ATMO 680  PHYSICAL METEOROLOGY  3 N
(OLD) This course is designed to enhance the student's understanding of atmospheric processes through the study of these processes at molecular through micro scales. Topics include the properties and behavior of gases; transfer processes, phase change, solar and earth radiation; cloud drop, ice crystal and precipitation formation; atmospheric electricity; stratospheric chemistry. Prerequisite: MATH 223, PHSX 212.

ATMO 680  PHYSICAL METEOROLOGY  3 N
(NEW) This course is designed to enhance the student's understanding of atmospheric processes through the study of these processes at molecular through micro scales. Topics include the properties and behavior of gases; transfer processes, phase change, solar and earth radiation; cloud drop, ice crystal and precipitation formation; atmospheric electricity; stratospheric chemistry. Prerequisite: MATH 223; and PHSX 214, or PHSX 212 and 236.

BIOLOGY

CHANGE: PREREQUISITE
BIOL 150  PRINCIPLES OF MOLECULAR AND CELLULAR BIOLOGY  4 N
(OLD) An integrated lecture and laboratory course for biology majors and students planning to take additional courses in biology. This course cover basic biochemistry, cell structure and function, molecular biology, genetics, physiology, and development of plants and animals. Three hours of lecture and two hours of laboratory per week. An honors section (BIOL 151) is offered for students with superior academic records. Prerequisite: Concurrent or prior enrollment in CHEM 130, or consent of instructor. LEC

BIOL 150  PRINCIPLES OF MOLECULAR AND CELLULAR BIOLOGY  4 N
(NEW) An integrated lecture and laboratory course for biology majors and students planning to take additional courses in biology. This course cover basic biochemistry, cell structure and function, molecular biology, genetics, physiology, and development of plants and animals. Three hours of lecture and two hours of laboratory per week. An honors section (BIOL 151) is offered for students with superior academic records. Prerequisite: Concurrent or prior enrollment in CHEM 130/190, CHEM 150, or CHEM 170, or consent of instructor. LEC

CHANGE: PREREQUISITE
BIOL 151  PRINCIPLES OF MOLECULAR AND CELLULAR BIOLOGY, HONORS  4 N
(OLD) An integrated lecture and laboratory course for students with superior academic records who are biology majors or who plan to take additional courses in biology. This course covers basic biochemistry, cell structure and function, molecular biology, genetics, physiology, and development of plants and animals. Three hours of lecture and two hours of laboratory per week. Prerequisite: Concurrent or prior enrollment in CHEM 130 and membership in the University Honors Program, or consent of instructor. LEC

BIOL 151  PRINCIPLES OF MOLECULAR AND CELLULAR BIOLOGY, HONORS  4 N
(NEW) An integrated lecture and laboratory course for students with superior academic records who are biology majors or who plan to take additional courses in biology. This course covers basic
biochemistry, cell structure and function, molecular biology, genetics, physiology, and development of plants and animals. Three hours of lecture and two hours of laboratory per week. Prerequisite: Membership in the University Honors Program and Concurrent or prior enrollment in CHEM 130/190, CHEM 150, or CHEM 170, or consent of instructor. LEC

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<tr>
<td>BIOL 408 PHYSIOLOGY OF ORGANISMS  3 N</td>
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<tr>
<td>(OLD) BIOL 408 PHYSIOLOGY OF ORGANISMS  3 N</td>
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<tr>
<td>A comprehensive and integrative approach to the study of organisms with an emphasis on physiological, ecological, structural, and behavioral adaptations to differing environments. Prerequisite: BIOL 152, or BIOL 153, and CHEM 130, or consent of the instructor. LEC</td>
</tr>
<tr>
<td>(NEW) A comprehensive and integrative approach to the study of organisms with an emphasis on physiological, ecological, structural, and behavioral adaptations to differing environments. Prerequisite: BIOL 152/153; and CHEM 130/190 or CHEM 170; or consent of the instructor. LEC</td>
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<td>BIOL 416 CELL STRUCTURE AND FUNCTION  3 N</td>
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<tr>
<td>(OLD) BIOL 416 CELL STRUCTURE AND FUNCTION  3 N</td>
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<tr>
<td>Lecture survey of molecular cell biology with emphasis on experimental approaches to understanding cell function; topics include biological membranes and transmembrane transport, vesicular trafficking (secretion and endocytosis), cell signaling, cell motility and the cytoskeleton, and the regulation of the cell division cycle. Prerequisite: BIOL 150, BIOL 350, CHEM 130 and CHEM 135, or consent of the instructor. LEC</td>
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<tr>
<td>(NEW) Lecture survey of molecular cell biology with emphasis on experimental approaches to understanding cell function; topics include biological membranes and transmembrane transport, vesicular trafficking (secretion and endocytosis), cell signaling, cell motility and the cytoskeleton, and the regulation of the cell division cycle. Prerequisite: BIOL 150/151; BIOL 350/360; CHEM 130/190 or CHEM 170; and CHEM 135/195 or CHEM 175, or consent of the instructor. LEC</td>
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<td>BIOL 426 LABORATORY IN CELL BIOLOGY  3 N</td>
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<td>(OLD) Laboratory exercises will examine the function, organization, and composition of eukaryotic cells. Prerequisite: BIOL 150 and CHEM 130, concurrent or prior enrollment in BIOL 416, or consent of the instructor. BIOL 350 is highly recommended. LAB</td>
</tr>
<tr>
<td>(NEW) Laboratory exercises will examine the function, organization, and composition of eukaryotic cells. Prerequisite: BIOL 150/151; CHEM 130/190 or CHEM 170; and concurrent or prior enrollment in BIOL 416/536; or consent of the instructor. BIOL 350/360 is highly recommended. LAB</td>
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<td>BIOL 594 FOREST ECOSYSTEMS  3 N</td>
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<td>(OLD) Students learn basic concepts of forest productivity, forest water relations, forest hydrology, nutrient cycling, through soils and vegetation, nutrient uptake, carbon cycling, decomposition, linkages to aquatic ecosystems, and agents of disturbance to these cycles. The class spends a significant part of the semester exploring forest soil profiles and the challenges they present to different forest ecosystems. We discuss the function of forested ecosystems in a global context and identify and understand smaller-scale processes that drive forest function. Prerequisite: CHEM 135 and BIOL 414. LEC</td>
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</table>
| (NEW) Students learn basic concepts of forest productivity, forest water relations, forest hydrology, nutrient cycling, through soils and vegetation, nutrient uptake, carbon cycling, decomposition, linkages to aquatic ecosystems, and agents of disturbance to these cycles. The class spends a
significant part of the semester exploring forest soil profiles and the challenges they present to
different forest ecosystems. We discuss the function of forested ecosystems in a global context and
identify and understand smaller-scale processes that drive forest function. Prerequisite: CHEM
135/195 or CHEM 175, and BIOL 414. LEC

CHANGE: PREREQUISITE
BIOL 662 AQUATIC ECOLOGY LABORATORY 2 U
(OLD) A field and laboratory course introducing biological, physical, and chemical characteristics of
lentic (ponds and lakes) and lotic (creeks and rivers) habitats. Students learn sampling and
monitoring techniques and how to classify aquatic biota at higher taxonomic levels. Co- or
prerequisite: CHEM 184 and either BIOL 660 or 661. LAB

BIOL 662 AQUATIC ECOLOGY LABORATORY 2 U
(NEW) A field and laboratory course introducing biological, physical, and chemical characteristics of
lentic (ponds and lakes) and lotic (creeks and rivers) habitats. Students learn sampling and
monitoring techniques and how to classify aquatic biota at higher taxonomic levels. Co- or
prerequisite: CHEM 130/190 or CHEM 170, and BIOL 661. LAB

EUROPEAN STUDIES

CHANGE: TITLE
EURS 302 EUROPEAN CULTURE AND SOCIETY 1945 TO PRESENT: DECLINE OF MODERNITY
AND RISE OF POSTMODERNISM 3 H
(OLD) The course provides historical, cultural, and political overviews of Europe since 1945 with
particular emphasis on the contribution of French and Italian culture and society. The course
emphasizes Europe's contribution to Western intellectual thought, social movements, arts and
literature, and global society. (Same as HWC 302.) LEC

EURS 302 EUROPEAN CULTURE AND SOCIETY 1945 TO PRESENT 3 H
(NEW) The course provides historical, cultural, and political overviews of Europe since 1945 with
particular emphasis on the contribution of French and Italian culture and society. The course
emphasizes Europe's contribution to Western intellectual thought, social movements, arts and
literature, and global society. (Same as HWC 302.) LEC

GEOLOGY

CHANGE: PREREQUISITE
GEOL 562 STRUCTURAL GEOLOGY 4 H
(OLD) A study of primary and secondary rock-structures and their genesis. Includes techniques of
structural analysis and introduces mechanics of rock deformations. Lectures, laboratory, and
required field trip. Prerequisite: GEOL 311 and PHSX 111 or PHSX 114 or PHSX 211, and
MATH 115 or MATH 121. LEC

GEOL 562 STRUCTURAL GEOLOGY 4 H
(NEW) A study of primary and secondary rock-structures and their genesis. Includes techniques of
structural analysis and introduces mechanics of rock deformations. Lectures, laboratory, and
required field trip. Prerequisite: GEOL 311; PHSX 111, PHSX 114, or PHSX 211 and PHSX
216; and MATH 115 or MATH 121. LEC

CHANGE: PREREQUISITE
GEOL 572 GEOPHYSICS 3 H
(OLD) Introductory study of gravitational, magnetic, seismic, electrical, and thermal properties of the
earth. Measurements, interpretation, and applications to exploration, earth structure, and global
tectonics. Prerequisite: an introductory course in geology, MATH 116 or MATH 122, and PHSX 115 or PHSX 212. PHSX 115 or PHSX 212 may be taken concurrently. LEC

GEOL 572  GEOPHYSICS  3  H
(NEW) Introductory study of gravitational, magnetic, seismic, electrical, and thermal properties of the earth. Measurements, interpretation, and applications to exploration, earth structure, and global tectonics. Prerequisite: an introductory course in geology, MATH 116 or MATH 122, and PHSX 115 or PHSX 212 and PHSX 236. PHSX 115 or PHSX 212 may be taken concurrently. LEC

CHANGE: PREREQUISITE

GEOL 573  GEODYNAMICS AND PLATE TECTONICS  3  H
(OLD) Study of physical processes in the solid Earth and of geophysical approaches to studying Earth systems at regional and global scales. Topics include global potential fields, thermal regime, rheology and Earth deformation, earthquakes and seismic structure, plate motions and global tectonics. (Same as PHSX 528.) Prerequisite: An introductory course in geology, MATH 116 or MATH 122, and PHSX 115 or PHSX 212 or PHSX 214. LEC

GEOL 573  GEODYNAMICS AND PLATE TECTONICS  3  H
(NEW) Study of physical processes in the solid Earth and of geophysical approaches to studying Earth systems at regional and global scales. Topics include global potential fields, thermal regime, rheology and Earth deformation, earthquakes and seismic structure, plate motions and global tectonics. (Same as PHSX 528.) Prerequisite: An introductory course in geology, MATH 116 or MATH 122, and PHSX 115, PHSX 214, or PHSX 212 and PHSX 236. LEC

CHANGE: PREREQUISITE

GEOL 577  ENVIRONMENTAL GEOPHYSICS  3  H
(OLD) Application of the methods of geophysical exploration to evaluate, mitigate, and prevent environmental problems below the surface of the earth. Development of fundamental principles and discussion of environmental case histories using seismic, gravity, magnetic, electromagnetic, electrical, and radar methods. Prerequisite: An introductory course in geology, MATH 116 or MATH 122, and PHSX 115 or PHSX 212. LEC

GEOL 577  ENVIRONMENTAL GEOPHYSICS  3  H
(NEW) Application of the methods of geophysical exploration to evaluate, mitigate, and prevent environmental problems below the surface of the earth. Development of fundamental principles and discussion of environmental case histories using seismic, gravity, magnetic, electromagnetic, electrical, and radar methods. Prerequisite: An introductory course in geology, MATH 116 or MATH 122, and PHSX 212 and PHSX 236. LEC

CHANGE: NEW COURSE

GERMAN

GERM 316  DISCUSSION SECTION FOR GERMAN LITERATURE AND THE MODERN ERA  1  H
Discussion section to be taken with GERM 315: German Literature and the Modern Era. Introduction to critical German vocabulary for discussing German-language literature in its historical and cultural context. Prerequisite: GERM 202 or placement by examination. GERM 315 qualifies for major or minor credit when taken with GERM 316.

CHANGE: NEW COURSE

GERM 335  LOVE AND THE GERMAN MIDDLE AGES  3  H
Taught in English. Introduction to German conceptions of love, marriage, and adultery in medieval and early modern German-speaking Europe. Exploration of the German contribution to discourse of love through theoretical, literary, and legal texts, as well as through visual and material culture. Examination of German discourse within the broader European context, and of
similarities, differences, and continuities between medieval and modern constructs. Does not count toward German major or minor.

CHANGE: NEW COURSE
GERM 375  TOPICS IN THE FILM OF GERMAN-SPEAKING EUROPE: __________ 3 H
Examination of topics such as Expressionism, Turkish-German culture in contemporary German film, popular filmmaking, post-unification film, German literature as film, German film and national identity. Topics and periods vary. Prerequisite: GERM 302.

CHANGE: NEW COURSE
GERM 401  ADVANCED GERMAN I 3 H
Continuation of GERM 302. Expansion and refinement of proficiency in German (speaking, listening, reading, writing), increased understanding of German grammatical structures, development of a more sophisticated vocabulary, and introduction to stylistics through discussion and analysis of literary and nonliterary texts. Students successfully completing GERM 401 may take all other GERM courses at the 400 and 500 levels. Prerequisite: GERM 302.

CHANGE: NEW COURSE
GERM 402  ADVANCED GERMAN II 3 H
Continuation of GERM 401. Development of advanced proficiency in German through analysis and discussion of literary and nonliterary texts and practice in advanced composition. Emphasis in both discussions and papers on style and rhetoric and on developing skill in textual analysis. Focus on advanced German grammar and on style and idiomatic expression in spoken and written German. Prerequisite: GERM 401.

CHANGE: NEW COURSE
GERM 475  TOPICS IN GERMAN STUDIES: __________ 3 H
Exploration of cultural forms such as literature, film, philosophy, social institutions, linguistics, the arts, and the press. Examination of how cultural meaning is produced and interpreted. Topics vary, and course may address topics across a narrow or broad time frame. May be repeated if content varies. Prerequisite: GERM 316 and GERM 401.

CHANGE: NEW COURSE
GERM 501  ADVANCED GERMAN III 3 H
Focus on usage-based grammar of contemporary German. Extensive reading and analysis of grammatical structures in context and integration of form, meaning, and use. Exploration of grammatical structures using contemporary electronic textual analysis tools. Prerequisite: GERM 402.

CHANGE: NEW COURSE
GERM 550  GERMAN LANGUAGE SEMINAR: HISTORY OF THE GERMAN LANGUAGE 3 H
Introduction to basic concepts of German philology and historical linguistics and exploration of the development of a national German language. Prerequisites: GERM 316 and GERM 401.

CHANGE: NEW COURSE
GERM 560  GERMAN LANGUAGE SEMINAR: STRUCTURE OF THE GERMAN LANGUAGE 3 H
This course provides an overview of the structure of modern standard German. Students will explore different levels of the linguistic system of German (including phonology, morphology, and syntax) and complete practical exercises. Prerequisites: GERM 316 and GERM 401.

CHANGE: NEW COURSE
GERM 575  TOPICS IN GENRE: __________ 3 H
Study of the definition, style, form, and content of a specific literary genre in German-language literature and the social, cultural, political, and economic factors that led to its emergence. Consideration of the genre's suitability for particular writers or periods. Topic and period vary. May be repeated if content varies. Prerequisites: GERM 316 and GERM 401.
CHANGE: NEW COURSE
GERM 580  SENIOR CAPSTONE COURSE: GERMAN-SPEAKING EUROPE TODAY  3  H
Focus on synthesizing students' knowledge of the history, culture, and politics of German-speaking Europe 1945-present. Consideration of scholarly articles, journalism, essays, literary texts, film, and the arts on topics including cultural identity in post-unified Germany; European integration; current debates and controversies; political parties and leading political figures; role of literature, film, music, visual arts, media, and popular culture; role of universities. Required of all German majors in senior year. Prerequisites: GERM 316, GERM 401, and senior standing.

CHANGE: NEW COURSE
GERM 598  RESEARCH FOR DEPARTMENTAL HONORS  3  H
Research for a departmental honors project, on a topic chosen in conjunction with the faculty advisor. Emphasis on independent study and writing. Open to students with previous coursework in German at the 400 level, an overall 3.0 GPA, and at least a B+ average in advanced work in German. Prerequisites: GERM 316, GERM 401, senior standing, and permission of Undergraduate Advisor.

CHANGE: NEW COURSE
GERM 599  DEPARTMENTAL HONORS PROJECT  3  H
Continuation of GERM 598. Course consists of completion of Departmental Honors project. Quality of project determines whether student receives credit only or Honors in German. Prerequisite: GERM 598.

CHANGE: NEW COURSE
GERM 315  GERMAN LITERATURE AND THE MODERN ERA  3  H
Introduction in English to German writers 1750-present. Discussion of themes such as technology, modern and postmodern developments, gender, war, politics, and culture in German-speaking Europe. Readings include works in translation by influential German writers. Open to first-year students and non-majors; qualifies for major or minor credit when taken with GERM 316, a one-hour discussion section. GERM 315 and 316 are required for admission to all courses beyond GERM 402 (except GERM 444 and 462).

CHANGE: DELETE COURSE
GERM 102  ELEMENTARY GERMAN B1  3  U
Essentials of German grammar and practice in speaking, reading, and writing. Three hours of class per week. Intended as the first course in the sequence GERM 102, GERM 106, GERM 110, GERM 212, and GERM 216. Not open to native speakers of German. Not open to students who have completed GERM 104. LEC

CHANGE: COURSE DESCRIPTION AND TITLE
GERM 104  ELEMENTARY GERMAN AI  5  U
(OLD) Essentials of grammar, practice in speaking, reading, and writing German. Five hours of recitation per week. Intended as the first course in the sequence GERM 104, GERM 108, GERM 212, and GERM 216. Not open to native speakers of German. Open for only 2 hours credit to students who have completed GERM 102. LEC

GERM 104  ELEMENTARY GERMAN I  5  U
(NEW) Introductory German; no previous German required. Development of students' use of the German language, including the ability to comprehend, interpret, and produce short spoken, written, and multimedia texts on everyday topics in cultural contexts. Emphasis on interaction. Not open to native speakers of German. Students who complete this course successfully should take GERM 108.
CHANGE: DELETE COURSE
GERM 105 ELEMENTARY GERMAN AI HONORS 5 U
Course content similar to GERM 104, with additional cultural study. Five hours of recitation per week. Not open to native speakers of German. Open for only 2 hours credit for students who have completed GERM 102. Prerequisite: Eligibility for or admission to University Honors Program. LEC

CHANGE: DELETE COURSE
GERM 106 ELEMENTARY GERMAN BII 3 U
Essentials of German grammar and practice in speaking, reading, and writing. Three hours of class per week. Intended as the second course in sequence GERM 102, GERM 106, GERM 110, GERM 212, and GERM 216. Not open to native speakers of German. Not open to students who have completed GERM 104. Prerequisite: GERM 102 or equivalent. LEC

CHANGE: DELETE COURSE
GERM 107 ELEMENTARY GERMAN II WITH REVIEW OF GERMAN I 5 U
Continuation of grammar with review of material covered in Elementary German I; practice in conversation, composition, and reading. Five hours of recitation per week. Not open to native speakers of German. Prerequisite: One semester of college German or the equivalent prior to entering K.U. LEC

CHANGE: COURSE DESCRIPTION AND PREREQUISITE AND TITLE
GERM 108 ELEMENTARY GERMAN AII 5 U
(OLD) Continuation of grammar; practice in conversation, composition, and reading. Five hours of recitation per week. Intended as the second course in the sequence GERM 104, GERM 108, GERM 212, and GERM 216. Not open to native speakers of German. Not open to students who have completed GERM 110. Prerequisite: GERM 104 or GERM 106. LEC

GERM 108 ELEMENTARY GERMAN II 5 U
(NEW) Continuation of GERM 104. Further development of students' use of German language through comprehension and production of short spoken, written, and multimedia texts on everyday topics in cultural contexts. Emphasis on interaction. Not open to native speakers of German. Students who complete this course successfully should take GERM 201. Prerequisite: GERM 104 or placement by examination.

CHANGE: DELETE COURSE
GERM 109 ELEMENTARY GERMAN AII HONORS 5 U
Course content similar to GERM 108, with additional cultural study. Five hours of recitation per week. Prerequisite: Open to students who received the grade of A in GERM 104 or GERM 106, or an A or B in GERM 105. Not open to native speakers of German. Not open to students who have completed GERM 110. LEC

CHANGE: DELETE COURSE
GERM 110 ELEMENTARY GERMAN BIII 3 U
Essentials of German grammar and practice in speaking, reading, and writing. Three hours of class per week. Intended as the third course in the sequence GERM 102, GERM 106, GERM 110, GERM 212, and GERM 216. Not open to native speakers of German. Not open to students who have completed GERM 108. Prerequisite: GERM 106.

CHANGE: DELETE COURSE
GERM 118 INTENSIVE GERMAN 11 U
Same content as GERM 108, GERM 212, and GERM 216 but accomplished in one semester of intensive study. This course also includes readings, lectures, and discussions on topics in art,
history, and politics. Not open to native speakers of German. Prerequisite: Eligibility for GERM 108 and consultation with the department. LEC

CHANGE: DELETE COURSE
GERM 120 GERMAN CLASSICS IN ENGLISH TRANSLATION 3 H
Discussion of landmark works in German drama, poetry, and prose. Not open to native speakers of German. LEC.
Course type: HL / H

CHANGE: COURSE DESCRIPTION
GERM 124 GERMAN CINEMA IN CONTEXT 3 H
(OLD) Background readings, lectures, and discussions in English about major German films in their historical and cultural contexts. About fifteen full-length films from the period 1913 to the present will be viewed and analyzed. The course will raise questions about the film's sources, ideology, techniques, and artistic achievements. Does not fulfill any requirement in the German major or minor. LEC

GERM 124 GERMAN CINEMA IN CONTEXT 3 H
(NEW) Taught in English. Screening and analysis of German films from the early 20th century to the present. Readings, lectures, and discussions on the films' sources, ideologies, techniques, and artistic achievements. Does not count toward the German major or minor.

CHANGE: COURSE DESCRIPTION
GERM 125 GERMAN CINEMA IN CONTEXT, HONORS 3 H
(OLD) Course content similar to GERM 124. Background readings, lectures, and discussions in English about major German films and their historical and cultural contexts. About 15 full-length films from the period 1913 to the present will be viewed and analyzed. The course will raise questions about the films' sources, ideology, techniques, and artistic achievements. Does not fulfill any requirement in the German major or minor. LEC

GERM 125 GERMAN CINEMA IN CONTEXT, HONORS 3 H
(NEW) Course content similar to GERM 124. Taught in English. Screening and analysis of German films from the early 20th century to the present. Readings, lectures, and discussions on the films' sources, ideologies, techniques, and artistic achievements. Does not count toward German major or minor. LEC

CHANGE: DELETE COURSE
GERM 132 THE GERMAN CULTURAL HERITAGE 3 H
Readings, lectures, and discussions in English on German intellectual thought, the fine arts, mythology, and folklore in historical and literary context. Not open to native speakers of German. LEC Course Type: H / HL

CHANGE: COURSE DESCRIPTION
GERM 136 THE GERMAN-AMERICAN EXPERIENCE 3 H
(OLD) Readings, lectures, and discussion in English on the immigration and acculturation of German-speaking ethnic groups in Colonial America and the United States. Emphasis on Americanization during the Colonial period, discrimination in the pre-Civil War era, integration in the post-Civil War era, anti-German hysteria during the World War I era, exiles during the Nazi period, and the near total assimilation of this ethnic group in the United States during the 20th century. LEC

GERM 136 THE GERMAN-AMERICAN EXPERIENCE 3 H
(NEW) Taught in English. Introduction to the migration of German-speaking Europeans to North America, 17th century-present. Consideration of European and North American factors motivating migration, the journey to the New World, the experiences of immigrants and their descendants, and the ways in which German-speaking Europeans shaped the multicultural history of America.
CHANGE: COURSE DESCRIPTION
GERM 148 GERMANIC MYTHOLOGY, RELIGION, AND FOLKLORE  3  H
(OLD) An introduction to the pagan myths and beliefs of Teutonic antiquity and their survival in the popular traditions of Germanic countries. Selected readings in the Eddas and other sources (in translation). General orientation toward aspects of comparative mythology, archaeology, and anthropology. No knowledge of German or Scandinavian languages is required. Not open to native speakers of German. LEC

GERM 148 GERMANIC MYTHOLOGY, RELIGION, AND FOLKLORE  3  H
(NEW) Taught in English. Introduction to the pagan myths and beliefs of Teutonic antiquity and their survival in the popular traditions of Germanic countries, within the framework of comparative mythology, archaeology, and anthropology. Does not count toward the German major or minor.

CHANGE: COURSE DESCRIPTION AND PREREQUISITE AND NUMBER
GERM 212 INTERMEDIATE GERMAN I  3  U
(OLD) A continuation of GERM 108 or GERM 110. Structured grammar review, composition, conversation, with readings of literary and cultural texts. Three class meetings per week. Intended as the third course in the sequence GERM 104, GERM 108, GERM 212, and GERM 216, or as the fourth course in the sequence GERM 102, GERM 106, GERM 110, GERM 212, and GERM 216. Not open to native speakers of German. Prerequisite: GERM 108, GERM 110, or equivalent.. LEC

GERM 201 INTERMEDIATE GERMAN I  3  U
(NEW) Continuation of GERM 108. Further development of students' use of the German language through comprehension and production of short literary and non-literary spoken, written, and multimedia texts in cultural contexts. Emphasis on interaction. Not open to native speakers of German. Students who complete this course successfully should take GERM 202. Prerequisite: GERM 108 or placement by examination.

CHANGE: DELETE
GERM 213 INTERMEDIATE GERMAN I, HONORS  3  H
Course content similar to GERM 212, with additional cultural study. Three class meetings per week. Not open to native speakers of German. Prerequisite: Completion of GERM 108 and GERM 110 with a grade of A or GERM 109 with a grade of A or B. LEC

CHANGE: COURSE DESCRIPTION AND PREREQUISITE AND NUMBER
GERM 216 INTERMEDIATE GERMAN II  3  U
(OLD) A continuation of GERM 212. Structured grammar review, composition, conversation with readings of literary and cultural texts. Three class meetings per week. Intended as the fourth course in the sequence GERM 104, GERM 108, GERM 212, and GERM 216, or as the fifth course in the sequence GERM 102, GERM 106, GERM 110, GERM 212, and GERM 216. Not open to native speakers of German. Prerequisite: GERM 212 or equivalent. LEC

GERM 202 INTERMEDIATE GERMAN II  3  U
(NEW) Continuation of GERM 201. Further development of students' use of the German language through the comprehension, interpretation, and production of short literary and non-literary spoken, written, and multimedia texts in cultural contexts. Emphasis on interaction. Not open to native speakers of German. Students who successfully complete this course should take GERM 301. Prerequisite: GERM 201 or placement by examination.

CHANGE: DELETE
GERM 217 INTERMEDIATE GERMAN II, HONORS  3  H
Course content similar to GERM 216, with additional cultural study. Three class meetings per week. Not open to native speakers of German. Prerequisite: Completion of GERM 212 with a grade of A or GERM 213 with a grade of A or B. LEC

CHANGE: COURSE DESCRIPTION AND PREREQUISITE AND NUMBER AND TITLE
GERM 218 INTRODUCTION BUSINESS GERMAN: DEUTSCH IM BERUFSALLTAG 3 H
A continuation of GERM 212 that completes the fourth semester language proficiency requirement. Structured grammar review, composition, conversation, and reading with the focus on the basics of the German business communication. Especially recommended for students planning to take GERM 352 and GERM 462. Three class meetings per week. Not open to native speakers of German. Prerequisite: GERM 212 or equivalent. LEC

GERM 203 INTRODUCTION TO BUSINESS GERMAN: DEUTSCH IM BERUFSALLTAG 3 H
Continuation of GERM 201; completes language proficiency sequence. Structured grammar review, composition, conversation, and reading with focus on the basics of German business communication. Recommended for students planning to take GERM 352 and GERM 462. Not open to native speakers of German. Prerequisite: GERM 201 or placement by examination.

CHANGE: DELETE COURSE
GERM 219 INTENSIVE INTERMEDIATE GERMAN 6 U
One-semester course meeting seven times a week. The material covered is the same as in GERM 212 and contains selections from GERM 216. This course includes written and oral composition, conversation, and grammar review; readings and discussions in the areas of German literature and culture (e.g. art, history, and politics). Not open to native speakers of German. Prerequisite: GERM 108 or equivalent and consent of instructor. LEC

CHANGE: COURSE DESCRIPTION
GERM 220 SPECIAL STUDIES IN GERMANIC LANGUAGE 1-5 U
This course is designed for the elementary study of a Germanic language. Course work must be arranged through the KU Office of Study Abroad. May be repeated for credit if content varies. LEC

GERM 220 SPECIAL STUDIES IN GERMANIC LANGUAGES 1-5 U
Credits awarded for elementary instruction in a Germanic language while studying abroad. Transfer credits must be arranged through the KU Office of Study Abroad, with permission from the departmental undergraduate advisor. May be repeated for credit if content varies. LEC

CHANGE: COURSE DESCRIPTION
GERM 222 SPECIAL STUDIES IN GERMAN: 1-3 H
This course is designed for the study of special topics in German. Coursework must be arranged through the KU Office of Study Abroad. May be repeated for credit if content varies. LEC

GERM 222 SPECIAL STUDIES IN GERMAN: 1-3 H
Credits awarded for the study of special topics in German while studying abroad. Transfer credits must be arranged through the KU Office of Study Abroad, with permission from the departmental undergraduate advisor. May be repeated for credit if content varies.

CHANGE: DELETE COURSE
GERM 240 MAJOR GERMAN INTELLECTUAL TEXTS 3 U
Analysis of excerpts (read in the original German) from the works of such writers as Marx, Nietzsche, Freud, and Einstein. Prerequisite: GERM 212. LEC

CHANGE: DELETE COURSE
GERM 244 SCIENTIFIC GERMAN 3 U
Intended primarily for premedical students and for students majoring in the natural and social sciences. In addition to the class text there are appropriate outside readings. Prerequisite: GERM 212. LEC

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<th>Course Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>GERM 256</td>
<td>INTRODUCTION TO GERMAN FOLKLORE</td>
<td>3</td>
<td>History, theory, and practice of German folklore with selected readings in German and discussions in English. Special emphasis on the contributions of the Grimm brothers. Not open to native speakers of German. Prerequisite: GERM 212 or equivalent. LEC</td>
</tr>
<tr>
<td>GERM 320(OLD)</td>
<td>BORDER CROSSINGS IN GERMAN CULTURE</td>
<td>3</td>
<td>Taught in English. Provides a general introduction to German culture and its transformations in international contexts through an examination of the historical, cultural, and literary impact of German emigration and immigration. Historical periods covered include the emigration wave to America after the failed 1848 revolution, the exile communities during the Nazi era, and the multinational migrations in contemporary Germany. Does not fulfill any requirement in the German major or minor. LEC</td>
</tr>
<tr>
<td>GERM 320(NEW)</td>
<td>BORDER CROSSINGS IN GERMAN CULTURE</td>
<td>3</td>
<td>Taught in English. Introduction to German culture and its transformations in transnational contexts. Examination of the historical, cultural, and literary impact of German emigration and immigration. Topics include emigration to America after the failed Revolution of 1848, exile communities during the Nazi era, and multinational migrations in contemporary Germany. Does not count toward German major or minor.</td>
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<tr>
<td>GERM 324(OLD)</td>
<td>MAGIC, MONSTERS AND THE OCCULT IN GERMAN LITERATURE</td>
<td>3</td>
<td>Taught in English. For centuries German scientists, philosophers and poets have produced groundbreaking literature that has featured magic, monsters and the occult sciences. German poets introduced popular themes, such as the Faust legend and the pact with the devil, and they introduced one of the most popular monsters into literature - the vampire. In this course we will read and discuss fictional and nonfictional works by German authors that address these themes, and we will discuss the influence that these works have had on other nations' literatures. Does not fulfill any requirement in the German major or minor. LEC</td>
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<tr>
<td>GERM 324(NEW)</td>
<td>MAGIC, MONSTERS AND THE OCCULT IN GERMAN LITERATURE</td>
<td>3</td>
<td>Taught in English. Reading and discussion of fictional and non-fictional works by German writers that address topics such as magic, monsters, the occult sciences, the Faust legend and pact with the devil, and the vampire. Consideration of the works' influence on other nations' literatures. Does not count toward the German major or minor.</td>
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<tr>
<td>GERM 328(OLD)</td>
<td>GERMANY IN THE ARTS</td>
<td>3</td>
<td>Taught in English. This course offers an introduction to art and culture in Germany. This is achieved by exploring a variety of themes, such as music, the arts, pop culture, theater and film. The course places special attention on the historical and cultural context from which these art forms were created. Does not fulfill any requirement in the German major or minor. LEC</td>
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<tr>
<td>GERM 328(NEW)</td>
<td>THE ARTS IN GERMAN-SPEAKING EUROPE</td>
<td>3</td>
<td>Taught in English. Exploration of the arts in German-speaking Europe: major cultural periods, movements, art forms, and people (artists, architects, composers, writers, filmmakers) from the Middle Ages to the present. Consideration of the arts within the larger European historical and cultural context from which they emerged. Does not count toward the German major or minor.</td>
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CHANGE: COURSE DESCRIPTION
GERM 332 BERLIN IN GERMAN CULTURE  3  H
(OLD) Taught in English. An introduction to Berlin as a microcosm of major historical, social, intellectual, and artistic developments in German culture since 1800. Complex epochs such as Bismarckian Prussia, Nazi Germany, the Cold War and Unification are illustrated through diverse materials including news reports, poetry, sociological accounts as well as film and other media. Does not fulfill any requirement in the German major or minor. LEC

GERM 332 BERLIN IN GERMAN CULTURE  3  H
(NEW) Taught in English. Introduction to Berlin within the context of major German and European historical, social, intellectual, and artistic developments since 1800. Exploration of complex epochs such as the Bismarck, Nazi, Cold War, and post-unification eras through journalism, literature, sociological writings, and film. Does not count toward German major or minor.

CHANGE: COURSE DESCRIPTION AND PREREQUISITE AND NUMBER AND TITLE
GERM 344 GERMAN HISTORY AND WRITING PRACTICE  3  H
(OLD) Extensive practice in writing creatively and speaking German with an emphasis on German history and extensive review of grammar and advanced writing structures. Not open to native speakers of German. Prerequisite: GERM 216 or equivalent. LEC

GERM 301 HIGH INTERMEDIATE GERMAN I  3  H
(NEW) Continuation of GERM 202. Further development of students' use of German through reading and discussion of literary and non-literary texts (spoken, written, multimedia, combined with intensive grammar review. Introduction to expressive functions of German with emphasis on spoken and written communication. Not open to native speakers of German. Students who complete this course successfully should take GERM 302. Prerequisite: GERM 202 or placement by examination.

CHANGE: COURSE DESCRIPTION AND PREREQUISITE AND NUMBER AND TITLE
GERM 348 GERMAN CULTURE AND WRITING PRACTICE  3  H
Extensive practice in writing creatively and speaking German with an emphasis on German culture and extensive review of grammar and advanced writing structures. Not open to native speakers of German. Prerequisite: GERM 216 or equivalent. LEC

GERM 302 HIGH INTERMEDIATE GERMAN II  3  H
Continuation of GERM 301. Refinement and expansion of students' use of German. Reading and discussion in German of literary and non-literary texts (spoken, written, multimedia), combined with continued intensive grammar review. Emphasis on better understanding German grammatical structures and acquisition of vocabulary. Not open to native speakers of German. Students who complete this course successfully should take GERM 401. Prerequisite: GERM 301 or placement by examination.

CHANGE: DELETE COURSE
GERM 350 EARLY MEDIEVAL LITERATURE  3  H
Literary masterpieces of the early European Middle Ages will be studied in English translation, especially legendary, heroic, and epic works written in Celtic and Anglo-Saxon, Norse and German, French and Spanish. Topics in Latin culture will include poetry and liturgy, Augustine and Boethius, the Dark Ages and the Carolingian Renaissance. Not open to native speakers of German. LEC

CHANGE: DELETE COURSE
GERM 351 LATER MEDIEVAL LITERATURE  3  H
Literary masterpieces of the later European Middle Ages will be studied in English translation, especially the poetry of courtly love and the Arthurian romances written in French, German, and English. Dante, Boccaccio, and Chaucer will also be included, as will examples typical of Latin
religious and secular literature and of vernacular prose genres, e.g. chronicles, travel accounts, and biographies. Not open to native speakers of German. LEC

CHANGE: PREREQUISITE
GERM 352 BUSINESS GERMAN/DEUTSCH FUR DEN BERUF 3 H
(OLD) Extensive practice in business communication: terminology, texts and correspondence, oral practice in business situations. Not open to native speakers of German. Prerequisite: GERM 216 or equivalent. LEC

GERM 352 BUSINESS GERMAN/DEUTSCH FUR DEN BERUF 3 H
(NEW) Extensive practice in business communication: terminology, texts and correspondence, oral practice in business situations. Not open to native speakers of German. Prerequisite: GERM 202 or placement by examination.

CHANGE: DELETE COURSE
GERM 356 TRANSLATION INTO GERMAN--INTERMEDIATE LEVEL 3 H
Exercises in the translation of a variety of texts from contemporary journalism, cultural affairs, and the social sciences. Translation of expository writing introduces the student to special semantics and syntactic contrast between English and German. Not open to native speakers of German. Prerequisite: GERM 216 or equivalent. LEC

CHANGE: DELETE COURSE
GERM 372 READINGS AND EXERCISES IN THE GERMAN OF THE PROFESSIONS AND SOCIAL SCIENCES 3 H
Readings from current German newspapers and periodicals introduce the student to journalistic style and special terminology in such fields as cultural affairs, business, and politics. Exercises in written German pertaining to these and other fields will be assigned. Not open to native speakers of German. Prerequisite: GERM 216 or equivalent. LEC

CHANGE: DELETE COURSE
GERM 408 INTRODUCTION TO GERMAN LITERATURES I 3 H
An introduction to German literature from 1890 to the present. Emphasis on development of interpretive skills, as well as an understanding of literary movements, genres, and concepts of this period. Not open to native speakers of German. Prerequisite: One course from GERM 340, GERM 344, or GERM 348. LEC

CHANGE: DELETE COURSE
GERM 416 INTRODUCTION TO GERMAN LITERATURE II 3 H
An introduction to German literature from 1750-1890. Emphasis on development of interpretive skills, as well as an understanding of literary movements, genres, and concepts of this period. Not open to native speakers of German. Prerequisite: One course from GERM 340, GERM 344, or GERM 348. LEC

CHANGE: DELETE COURSE
GERM 420 GERMAN LITERATURE IN ENGLISH TRANSLATION: 3 H
Lectures, assigned readings, and discussions in English. Emphasis on the nineteenth and twentieth centuries, with some consideration of parallel literary phenomena in France, England, and the United States. Not open to native speakers of German. LEC

CHANGE: DELETE COURSE
GERM 424 GERMAN CINEMA IN CONTEXT 3 H
Background readings, lectures, and discussions in English about major German films in their historical and cultural contexts. About fifteen full-length films from the period 1913 to the present will be viewed and analyzed. The course will raise questions about the film's sources, ideology,
Background readings, lectures, and discussions in English about major German films in their historical and cultural contexts. About 15 full-length films from 1913 to the present will be viewed and analyzed. The course will raise questions about the film’s sources, ideology, techniques, and artistic achievements. Fulfills elective requirements in the German major or minor. Portions of the assignments will be in German. Not open to native speakers of German. Prerequisite: One 300-level German course or permission of instructor. LEC

CHANGE: COURSE DESCRIPTION AND PREREQUISITE AND TITLE
GERM 444 GERMAN CONVERSATION FOR EVERYDAY USE 3 H
The goal of this course is to maintain and further develop practical conversational skills of students who already have a basic knowledge of German. Discussion will range among topics from everyday German life and current affairs, with German newspapers and magazines providing the orientation. May be repeated. May only be counted once toward the minimum 30 hours in the major. Not open to native speakers of German. Prerequisite: GERM 216 or equivalent. LEC

GERM 444 GERMAN CONVERSATION 3 H
Further development of practical conversational skills for students with intermediate proficiency in German. Discussion of topics from everyday German life and current affairs, based on German newspapers and magazines. May be repeated but counts only once toward the major or minor. Not open to native speakers of German. Prerequisite: GERM 302.

CHANGE: DELETE COURSE
GERM 504 GERMAN POETRY 3 H
The appreciation and understanding of selected masterpieces of German poetry, with attention to the basic poetic forms, techniques, and phonological features. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC

CHANGE: COURSE DESCRIPTION AND PREREQUISITE AND NUMBER AND TITLE
GERM 568 GERMAN LITERATURE FROM 1750-1805 3 H
Readings and discussions in German of selected literary works of the classical period. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC

GERM 481 LITERATURE AND CULTURE OF GERMAN-SPEAKING EUROPE 1750-1830 3 H
Exploration of literature within the framework of major cultural movements and historical, political, and economic change. Prerequisite: GERM 316 and GERM 401.

CHANGE: COURSE DESCRIPTION AND PREREQUISITE AND NUMBER AND TITLE
GERM 572 GERMAN LITERATURE FROM 1805-1890 3 H
Readings and discussions in German of selected literary works of the nineteenth century. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC

GERM 482 LITERATURE AND CULTURE OF GERMAN-SPEAKING EUROPE 1830-1918 3 H
Exploration of literature within the framework of major cultural movements and historical, political, and economic change. Prerequisites: GERM 316 and GERM 401.

CHANGE: COURSE DESCRIPTION AND PREREQUISITE AND NUMBER AND TITLE
GERM 576 GERMAN LITERATURE FROM 1890-PRESENT 3 H
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<th>Course Code</th>
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<th>Description</th>
<th>Prerequisites</th>
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<tr>
<td>GERM 483</td>
<td>LITERATURE AND CULTURE OF GERMAN-SPEAKING EUROPE 1918-PRESENT 3 H</td>
<td>Exploration of literature within the framework of major cultural movements and historical, political, and economic change. Prerequisites: GERM 316 and GERM 401.</td>
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<tr>
<td>GERM 411</td>
<td>GERMAN CULTURE 1150-1750 3 H</td>
<td>Exploration of major cultural periods and movements within the framework of historical and political change, with investigation of themes such as nation and national identity, founding myths, geography, and language. Study of forms of culture in German-speaking Europe, including visual art, music, literature, architecture, and the press. Prerequisites: GERM 316 and GERM 401.</td>
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<tr>
<td>GERM 588</td>
<td>DEUTSCHE KULTURKUNDE I 3 H</td>
<td>A study of the development of German culture with emphasis on life, customs, geography, art, music, and literature, from its beginnings to 1810. Readings and discussions in German and English. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC</td>
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<tr>
<td>GERM 590</td>
<td>DEUTSCHE KULTURKUNDE II 3 H</td>
<td>A study of the development of German culture with emphasis on life, customs, geography, art, music, and literature, from 1810 to the present. Readings and discussions in German and English. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC</td>
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<tr>
<td>GERM 412</td>
<td>GERMAN CULTURE 1750-PRESENT 3 H</td>
<td>Exploration of major cultural periods and movements 1750-present within the framework of historical and political change, with investigation of themes such as nation and national identity, founding myths, geography, and language. Study of forms of culture in German-speaking Europe, including visual art, music, literature, architecture, and the press. Prerequisites: GERM 316 and GERM 401.</td>
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<tr>
<td>GERM 604</td>
<td>INTRODUCTION TO THE GERMANIC LANGUAGES 3 H</td>
<td>A study of the development and distribution of the Germanic languages, with emphasis on the modern linguistic features of the major members of the language family. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC</td>
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<tr>
<td>GERM 608</td>
<td>GERMAN LITERATURE FROM THE BEGINNING TO 1750 3 H</td>
<td>Readings and discussions in German of selected literary works of the medieval and early modern periods. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC</td>
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<tr>
<td>GERM 480</td>
<td>LITERATURE AND CULTURE OF GERMAN-SPEAKING EUROPE 1150-1750 3 H</td>
<td>Exploration of medieval and early modern literature within the framework of major cultural movements and historical, political, and economic change. Prerequisite: GERM 316 and GERM 401.</td>
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<tr>
<td>GERM 653</td>
<td>INVESTIGATION AND CONFERENCE 1-3 H</td>
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</table>
Independent study and directed reading on special topics. Permission of the instructor who will supervise the student is required. Prerequisite: Two literature courses from GERM 400, GERM 408, and GERM 416 and two composition courses from GERM 340, GERM 344, and GERM 348, or equivalent. LEC

GERM 579 INVESTIGATION AND CONFERENCE 1-3 H
Independent study and directed reading on special topics. Permission of the instructor who will supervise the student's work required. Prerequisites: GERM 316 and GERM 401.

HISTORY OF ART

CHANGE: NEW CROSS-LISTED COURSE
HA 536 ISLAMIC ART AND ARCHITECTURE IN AFRICA 3.0 H
Study of Islamic art and architecture in various cultural and geographical settings, from the first mosques of North African and the Swahili coast to contemporary Islamized masquerades in West Africa. We consider art objects and architectural sites in terms of religious practice, trade and commerce, ritual and political power, and contemporary expression. Prerequisite: AAAS 102, AAAS 103, HA 100, or HA 150; or permission of instructor. (Same as AAAS 536) LEC

HISTORY

CHANGE: NEW CROSS-LISTED COURSE
HIST 626 MEN AND MASCULINITIES 3 H
An intensive examination of the history and theory of masculinities in the Western world. Students become acquainted with some of the key theories of men and masculinities, and develop research projects on a topic negotiated with the instructor. Prerequisite: an upper-division course in HIST, HWC, or WGSS; or permission of instructor. (Same as HWC 570, WGSS 570) LEC

CHANGE: NEW CROSS-LISTED COURSE
HIST 625 BODY, SELF AND SOCIETY 3 H
An intensive examination of the role of the human body in the creation of personal and social identities in the Western world. Students become acquainted with contemporary theories of embodiment and the senses as they are applied to a variety of historical themes, and develop research projects on a topic negotiated with the instructor. Prerequisite: an upper-division course in HIST, HWC, or WGSS; or permission of instructor. (Same as HWC 575, WGSS 575) LEC

CHANGE: COURSE DESCRIPTION AND TITLE
HIST 565 IMPERIAL RUSSIA AND THE SOVIET UNION 3 H
The influence of the West and Marxism upon the institutional structure and international position of Russia. LEC

HIST 565 IMPERIAL RUSSIA 3 H
The history of Imperial Russia from Peter the Great's reinvention of the empire in the eighteenth century to its demise in the revolutions of 1917. Placing Russia in a global context, the course examines change and continuity in politics, society, economy, and culture and looks at Russia as a diverse empire between Europe and Asia. Readings include historical scholarship and some of the classics of Russian literature.

CHANGE: COURSE DESCRIPTION AND TITLE
HIST 568 RUSSIA IN THE 20TH CENTURY AND BEYOND 3 H
A course designed to provide an understanding of change and continuity in Russian history and society with an emphasis on the distinctive factors and characteristics of the peoples that led to the rise and fall of the Soviet Union. LEC

HIST 568 THE RISE AND FALL OF THE SOVIET UNION, 1917 TO THE PRESENT 3 H
An exploration of the Soviet Union's creation, evolution, collapse, and legacy in contemporary Russia and Eurasia. Drawing on historical scholarship, literature, music, and film, the course examines the major trends and developments in Soviet politics, ideology, society, economy, and culture. Special attention is paid to how the multiethnic Soviet state's rise and fall reflected broader changes in the world during the "Soviet century."

**CHANGE: COURSE DESCRIPTION AND TITLE**

**HIST 570**  
**THE MIDDLE EAST SINCE WORLD WAR II  3 H**  
An intensive study of developments and changes in the Middle East since World War II. Themes developed include the end of British and French ascendency, fundamental transformation of the structure of Middle Eastern states and politics, oil and the energy crisis, American and Russian policies and interests, old and new problems--e.g., the Straits, Suez Canal, Kurds, the Persian Gulf. (Not closed to those who have taken HIST 569, nor is HIST 569 necessary for HIST 570.) No prerequisite. LEC

**HIST 570**  
**THE MIDDLE EAST AFTER WORLD WAR II  3 H**  
An intensive study of developments and changes in the Middle East since World War II. Topics and themes will vary, but may include the long-lasting effects of European imperialism, Big Oil and the energy crisis, the Arab-Israeli conflict and peace process, American intervention in the Middle East, minority communities, and the revival of Islamic and popular protest movements.

**CHANGE: COURSE DESCRIPTION**

**HIST 670**  
**COMPARATIVE DIASPORAS  3 H**  
This course considers various theories of diaspora (including whether the Jewish experience should be considered a model for diaspora culture), as well as several of the most prominent "new diasporic" formation in the modern period, such as the Black Atlantic, South and East Asian diasporas, and the Romani (or "Gypsies"). Our study of these diasporas helps us to rethink relations among politics, territory and identity in our time. We consider the way rhetorics of collective memory and ethnohistory contribute to the maintenance of group identities outside the homeland. Our focus on diasporas also helps us to gain a clearer sense of the historical origins, and the possible futures of nation-states as the basic building blocks of human polity. LEC

**HIST 670**  
**COMPARATIVE DIASPORAS  3 H**  
This course examines history from the point of view of diasporas, groups who move across established borders but maintain an identity linked to an original homeland. This course examines commonalities and differences in the diaspora experience by looking comparatively at a range of prominent cases, including the Jewish, African, Armenian, Greek, Turkish, German, Irish, Italian, South Asian, and Chinese diasporas, the "Gypsies," and the internal diasporas of multiethnic states like Russia. The course also gives students the opportunity to pursue research on a diaspora of their own choosing.

**HUMANITIES AND WESTERN CIVILIZATION**

**CHANGE: TITLE**

**HWC 302**  
**EUROPEAN CULTURE AND SOCIETY 1945 TO PRESENT: DECLINE OF MODERNITY AND RISE OF POSTMODERNISM  03 H**  
This course provides historical, cultural, and political overviews of Europe since 1945 with particular emphasis on the contribution of French and Italian culture and society. The course emphasizes Europe's contribution to Western intellectual thought, social movements, arts and literature, and global society. (Same as EURS 302) HT / H

**HWC 302**  
**EUROPEAN SOCIETY AND CULTURE 1945-PRESENT  03 H**  
This course provides historical, cultural, and political overviews of Europe since 1945 with particular emphasis on the contribution of French and Italian culture and society. This course emphasizes Europe's contribution to Western intellectual thought, social movements, arts and literature, and global society. (Same as EURS 302) HT / H
CHANGE: COURSE DESCRIPTION AND NEW REQUEST TO CROSSLIST
HWC 570 MEN AND MASCULINITIES 03 H
(OLD) An intensive examination of the history and theory of masculinities in the Western world since the sixteenth century. Students will become acquainted with some of the key theories of men and masculinities, examine in depth the interplay between manhood and modernity, and develop research projects on a topic negotiated with the instructor. May be repeated if content varies sufficiently. (Same as WGSS 570) LEC Prerequisite:

HWC 570 MEN AND MASCULINITIES 03 H
(NEW) An intensive examination of the history and theory of masculinities in the Western world. Students become acquainted with some of the key theories of men and masculinities, and develop research projects on a topic negotiated with the instructor. Prerequisite: an upper-division course in HIST, HWC, or WGSS; or permission of instructor. (Same as WGSS 570; HIST 626)

CHANGE: COURSE DESCRIPTION AND NEW REQUEST TO CROSSLIST
HWC 575 BODY, SELF AND SOCIETY 03 H
(OLD) An examination of the role of the human body in the creation of personal and social identities in the West since the sixteenth century. Contemporary theories of embodiment are applied to a variety of historical themes, which may include posture, manners and morality; cleanliness and hygiene; exercise, dieting and body-building; sexuality and personal identity; fashion, make-up and cosmetic surgery; vegetarianism, self-help literature and alternative medicine; tattooing and body modification; and the history of the senses. (Same as WGSS 575)

HWC 575 BODY, SELF AND SOCIETY 03 H
(NEW) An intensive examination of the role of the human body in the creation of personal and social identities in the Western world. Students become acquainted with contemporary theories of embodiment and the senses as they are applied to a variety of historical themes, and develop research projects on a topic negotiated with the instructor. Prerequisite: an upper-division course in HIST, HWC, or WGSS; or permission of instructor. (Same as WGSS 575; HIST 625) LEC

QUICHUA (IN THE CENTER FOR LATIN AMERICAN STUDIES)

CHANGE: NEW COURSE
KICH 110 ELEMENTARY QUICHUA I 3 U
An orientation to Ecuadorian Quichua language and culture for beginning students. Includes elements of grammar, conversation, and composition. Quichua (a.k.a. Kechwa, Quechua, Kechua, Ketchua, Kichwa, Khetchua, or Runa Ximi) in its various forms is an indigenous language spoken by over six million people in Ecuador, Peru and Bolivia combined. LEC

CHANGE: NEW COURSE
KICH 114 ELEMENTARY QUICHUA II 3 U
Continuation of KICH 110. Prerequisites: KICH 110 or equivalent. LEC

CHANGE: NEW COURSE
KICH 230 INTERMEDIATE QUICHUA I 3 U
Continuation of KICH 114. Prerequisites: KICH 114 or equivalent. LEC

CHANGE: NEW COURSE
KICH 234 INTERMEDIATE QUICHUA II 3 U
Continuation of KICH 230. Prerequisite: KICH 230 or equivalent. LEC
KAQCHIKEL (IN THE CENTER FOR LATIN AMERICAN STUDIES)

CHANGE: NEW COURSE
KQKL 110 ELEMENTARY KAQCHIKEL MAYA I  3  U
An orientation to Kaqchikel Maya language and culture for beginning students. Includes elements of grammar, conversation, and composition. Kaqchikel is the first language of approximately 500,000 people of highland Guatemala and one of roughly 30 Mayan languages. LEC

CHANGE: NEW COURSE
KQKL 114 ELEMENTARY KAQCHIKEL MAYA II  3  U
Continuation of KQKL 110. Prerequisite: Completion of KQKL 110 or equivalent. LEC

CHANGE: NEW COURSE
KQKL 230 INTERMEDIATE KAQCHIKEL MAYA I  3  U
Continuation of KQKL 114. Prerequisite: Completion of KQKL 114 or equivalent. LEC

CHANGE: NEW COURSE
KQKL 234 INTERMEDIATE KAQCHIKEL MAYA II  3  U
Continuation of KQKL 230. Prerequisite: Completion of KQKL 230 or equivalent. LEC

LINGUISTICS

CHANGE: COURSE DESCRIPTION
LING 447 NORTH AMERICAN INDIAN LANGUAGES  3  S
(OLD) Introduction to the nature and distribution of North American Indian languages. Not open to students with credit in LING 747. Students taking this course at the 700 level will have different course requirements. Prerequisite: An introductory course in linguistics. LEC

LING 447 NORTH AMERICAN INDIAN LANGUAGES  3  S
(NEW) This course introduces students to the indigenous languages of North America. Students critically examine the structures and status of these languages, which have greatly expanded our knowledge of human language and linguistic theory. Topics include the history and future of North American languages and indigenous speech communities, the history of the field of Americanist linguistics, as well as important linguistic questions raised by phenomena from American languages in phonology, morphology, syntax, semantics, and historical linguistics. Prerequisite: An introductory course in linguistics. Not open to students enrolled in 747. LEC

PHILOSOPHY

CHANGE: NEW COURSE
PHIL 557 KANT  3  H
A survey of the major works of Immanuel Kant, with attention to his critical method and its application to issues in theoretical philosophy, practical philosophy, aesthetics, or the philosophy of history. Prerequisite: PHIL 386. LEC

PHYSICS

CHANGE: NEW COURSE
PHSX 216 GENERAL PHYSICS I LABORATORY  1  N
Experiments in classical mechanics and thermodynamics. Counts as a laboratory science when accompanied by PHSX 211. Pre- or Corequisite: PHSX 211. LAB

CHANGE: NEW COURSE
PHSX 236 GENERAL PHYSICS II LABORATORY  1  N
Experiments in electricity and magnetism, waves and sound. Pre- or Corequisite: PHSX 212. LAB
CHANGE: COURSE DESCRIPTION

PHSX 114  COLLEGE PHYSICS I  4  N
(OLD) Principles and applications of mechanics, fluids, heat, thermodynamics, and sound waves. Three class hours and one laboratory per week. This course emphasizes the development of quantitative concepts and problem solving skills for students needing a broad background in physics as part of their preparation in other major programs, and for those who wish to meet the laboratory science requirement of the College. In special circumstances, permission to enroll in less than four hours may be obtained from the department. Not open to students with credit in PHSX 211 or PHSX 212. Prerequisite: MATH 104, or three and one-half years of college-preparatory mathematics including trigonometry and a score of 25 or higher on ACT mathematics. LEC

PHSX 114  COLLEGE PHYSICS I  4  N
(NEW) Principles and applications of mechanics, fluids, heat, thermodynamics, and sound waves. Three class hours and one laboratory per week. This course emphasizes the development of quantitative concepts and problem solving skills for students needing a broad background in physics as part of their preparation in other major programs, and for those who wish to meet the laboratory science requirement of the College. In special circumstances, permission to enroll in less than four hours may be obtained from the department. Not open to students with credit in PHSX 211/PHSX 216 or PHSX 212/PHSX 236. Prerequisite: MATH 104, or three and one-half years of college-preparatory mathematics including trigonometry and a score of 25 or higher on ACT mathematics. LEC

CHANGE: COURSE DESCRIPTION

PHSX 115  COLLEGE PHYSICS II  4  N
(OLD) A continuation of PHSX 114. Principles and applications of electricity, magnetism, light, atomic physics, and nuclear physics. Three class hours and one laboratory per week. In special circumstances, permission to enroll in less than four hours may be obtained from the department. Not open to students with credit in PHSX 212. Prerequisite: PHSX 114. LEC

PHSX 115  COLLEGE PHYSICS II  4  N
(NEW) A continuation of PHSX 114. Principles and applications of electricity, magnetism, light, atomic physics, and nuclear physics. Three class hours and one laboratory per week. In special circumstances, permission to enroll in less than four hours may be obtained from the department. Not open to students with credit in PHSX 212/PHSX 236. Prerequisite: PHSX 114. LEC

CHANGE: COURSE DESCRIPTION AND PREREQUISITE AND CREDIT

PHSX 212  GENERAL PHYSICS II  1-4  N
(OLD) Study of electricity and magnetism, waves and sound. In special circumstances, permission to enroll for fewer than four hours credit may be obtained from the department. Students with credit in PHSX 115 can obtain only one hour of credit. Prerequisite: PHSX 211. Corequisite: MATH 122. LEC

PHSX 212  GENERAL PHYSICS II  1-3  N
(NEW) Study of electricity and magnetism, waves and sound. In special circumstances, permission to enroll for fewer than three hours credit may be obtained from the department. Students with credit in PHSX 115 can obtain only one hour of credit. Prerequisites: PHSX 211 and PHSX 216 or PHSX 213. Corequisite: MATH 122. LEC
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
<th>Credit Hours</th>
<th>Notes</th>
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<tbody>
<tr>
<td>PHSX 213</td>
<td>GENERAL PHYSICS I, HONORS 1-5 N</td>
<td>1-5 N</td>
<td>An honors section of PHSX 211. Credit for fewer than four hours requires permission of the department. Recommended for students with a strong math background who are either in the University Honors Program or intending to major in a physical science. Courses in high school physics and chemistry are strongly recommended. Prerequisite: MATH 121 and permission of instructor. LEC</td>
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<tr>
<td>PHSX 214</td>
<td>GENERAL PHYSICS II, HONORS 1-4 N</td>
<td>1-4 N</td>
<td>An honors section of PHSX 212. Credit for fewer than four hours requires permission of the department. Recommended for students with a strong math background who are either in the University Honors Program or intending to major in a physical science. Prerequisite: PHSX 211 or PHSX 213, and permission of instructor. Corequisite: MATH 122. LEC</td>
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<tr>
<td>PHSX 313</td>
<td>GENERAL PHYSICS III 3 N</td>
<td>3</td>
<td>Introduction to modern physics. Topics include special relativity, optics, and introductions to quantum mechanics and solid state physics. Prerequisite: PHSX 212 or PHSX 214 or EECS 220. Corequisite: MATH 320 or MATH 220. LEC</td>
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<tr>
<td>PHSX 521</td>
<td>MECHANICS I 3 N</td>
<td>3</td>
<td>Newton's laws of motion. Motions of a particle in one, two, and three dimensions. Motion of a system of particles. Moving coordinate systems. (Same as EPHX 521.) Prerequisite: PHSX 211 or PHSX 213, MATH 223, MATH 290 and MATH 220 or MATH 320. LEC</td>
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CHANGE: PREREQUISITE

PHSX 528
GEODYNAMICS AND PLATE TECTONICS 3 N
(OLD) Study of physical processes in the solid Earth and of geophysical approaches to studying Earth systems at regional and global scales. Topics include global potential fields, thermal regime, rheology and Earth deformation, earthquakes and seismic structure, plate motions and global tectonics. (Same as GEOL 573) Prerequisite: An introductory course in geology, MATH 116 or MATH 122, and PHSX 115 or PHSX 212 or PHSX 214. LEC

PHSX 528
GEODYNAMICS AND PLATE TECTONICS 3 N
(NEW) Study of physical processes in the solid Earth and of geophysical approaches to studying Earth systems at regional and global scales. Topics include global potential fields, thermal regime, rheology and Earth deformation, earthquakes and seismic structure, plate motions and global tectonics. (Same as GEOL 573) Prerequisite: An introductory course in geology; MATH 116 or MATH 122; and PHSX 115, PHSX 214 or PHSX 212 and PHSX 236. LEC

CHANGE: PREREQUISITE

PHSX 531
ELECTRICITY AND MAGNETISM 3 N
(OLD) The properties of electric and magnetic fields, including electrostatics, Gauss' Law, boundary value methods, electric fields in matter, electromagnetic induction, magnetic fields in matter, the properties of electric and magnetic dipoles, and of dielectric and magnetic materials. (Same as EPHX 531.) Prerequisite: PHSX 212 or PHSX 214, PHSX 521 or special permission, MATH 223, MATH 290 and MATH 220 or MATH 320. LEC

PHSX 531
ELECTRICITY AND MAGNETISM 3 N
(NEW) The properties of electric and magnetic fields, including electrostatics, Gauss' Law, boundary value methods, electric fields in matter, electromagnetic induction, magnetic fields in matter, the properties of electric and magnetic dipoles, and of dielectric and magnetic materials. (Same as EPHX 531.) Prerequisite: PHSX 214, or PHSX 212 and PHSX 236; PHSX 521 or special permission; MATH 223; MATH 290; and MATH 220 or MATH 320. LEC

CHANGE: PREREQUISITE

PHSX 536
ELECTRONIC CIRCUIT MEASUREMENT AND DESIGN 4 N
(OLD) A laboratory course that explores the theory and experimental techniques of analog and digital electronic circuit design and measurements. Topics include transient response, transmission lines, transistors, operational amplifiers, and digital logic. (Same as EPHX 536.) Prerequisite: PHSX 212 or PHSX 214, MATH 223 and MATH 290. PHSX 313 and 316 recommended. LAB

PHSX 536
ELECTRONIC CIRCUIT MEASUREMENT AND DESIGN 4 N
(NEW) A laboratory course that explores the theory and experimental techniques of analog and digital electronic circuit design and measurements. Topics include transient response, transmission lines, transistors, operational amplifiers, and digital logic. (Same as EPHX 536.) Prerequisite: PHSX 214 or PHSX 212 and PHSX 236; MATH 223; and MATH 290. PHSX 313 and 316 recommended. LAB

CHANGE: PREREQUISITE

PHSX 623
PHYSICS OF FLUIDS 3 N
(OLD) An introduction to basic fluid mechanics in which fundamental concepts and equations are covered. Topics include hydrostatics, hydrodynamics, wave propagation in fluids, and applications in the areas such as astrophysics, atmospheric physics, and geophysics. (Same as EPHX 623.) Prerequisite: PHSX 212 or PHSX 214, MATH 223, and MATH 290. LEC

PHSX 623
PHYSICS OF FLUIDS 3 N
(NEW) An introduction to basic fluid mechanics in which fundamental concepts and equations are covered. Topics include hydrostatics, hydrodynamics, wave propagation in fluids, and applications in the areas such as astrophysics, atmospheric physics, and geophysics. (Same as EPHX 623.)
Prerequisite: MATH 223; MATH 290; PHSX 212 and PHSX 236 (or PHSX 214 can replace PHSX 212 and PHSX 236). LEC

CHANGE: PREREQUISITE
PHSX 641 INTRODUCTION TO NUCLEAR PHYSICS 3 N
(OLD) Experimental methods and elementary concepts in nuclear physics, including nuclear forces, alpha and beta decay, gamma radiation, nuclear structure, and reaction systematics. (Same as EPHX 641.) Prerequisite: PHSX 313 and PHSX 611. LEC

PHSX 641 INTRODUCTION TO NUCLEAR PHYSICS 3 N
(NEW) Experimental methods and elementary concepts in nuclear physics, including nuclear forces, alpha and beta decay, gamma radiation, nuclear structure, and reaction systematics. (Same as EPHX 641.) Prerequisite: PHSX 313 and PHSX 511. LEC

CHANGE: PREREQUISITE
PHSX 671 THERMAL PHYSICS 3 N
(OLD) Development of thermodynamics from statistical considerations. Techniques of calculating thermodynamic properties of systems. Application to classical problems of thermodynamics. Elementary kinetic theory of transport processes. Fermi-Dirac and Bose-Einstein systems. (Same as EPHX 671.) Prerequisite: PHSX 611. LEC

PHSX 671 THERMAL PHYSICS 3 N
(NEW) Development of thermodynamics from statistical considerations. Techniques of calculating thermodynamic properties of systems. Application to classical problems of thermodynamics. Elementary kinetic theory of transport processes. Fermi-Dirac and Bose-Einstein systems. (Same as EPHX 671.) Prerequisite: PHSX 511. LEC

CHANGE: NEW COURSE
REL 365 HINDUISM 3 H
An introduction to the diversity and richness of Hinduism from the Vedic period to the present; explores Hindu practices, beliefs, and communities using primary texts and extensive audio-visual resources.

CHANGE: COURSE DESCRIPTION AND TITLE AND PREREQUISITE
REL 311 HEBREW SCRIPTURES (OLD TESTAMENT IN ENGLISH) 3 H
(OLD) A study of the development of the Hebrew Bible from its earliest stages of oral tradition to its canonization with an emphasis on the relationship of the historical, intellectual, and cultural contexts shaping that development. Prerequisite: REL 124 or permission of instructor. LEC

REL 311 RELIGION OF ANCIENT ISRAEL 3 H
(NEW) An introduction to the religion of ancient Israel through examination of biblical texts and archaeological evidence. Emphasis is placed on understanding the texts of the Hebrew Bible (Old Testament) in their historical and cultural contexts, including the relationship of their religious views to other religious perspectives current in ancient Israel and the Near East. Attention is given to the processes by which the biblical texts developed and came to be viewed as scripture.

UKRAINIAN (IN THE DEPARTMENT OF SLAVIC LANGUAGES AND LITERATURES)

CHANGE: COURSE DESCRIPTION AND PREREQUISITE AND TITLE AND CREDIT
UKRA 512 INTENSIVE UKRAINIAN LANGUAGE I 5 H
(OLD) A practical Ukrainian language course involving advanced study of the grammar and reading of texts on a variety of subjects, conversation, and composition. Taught in Ukrainian. Prerequisite: Three years of another Slavic language or permission of instructor. LEC
UKRA 512 INTENSIVE UKRAINIAN LANGUAGE AND CULTURE I  3  H
(NEW) A practical Ukrainian language course involving advanced study of the grammar, conversation, composition. Reading of texts on a variety of subjects (culture, literature, history, folklore etc.), Taught in Ukrainian. Prerequisite: Three years of a Slavic language or permission of instructor. LEC.

CHANGE: COURSE DESCRIPTION AND PREREQUISITE AND TITLE AND CREDIT
UKRA 516 INTENSIVE UKRAINIAN LANGUAGE II  5  H
(OLD) A practical Ukrainian language course involving advanced study of the grammar and reading of texts on a variety of subjects, conversation, and composition. Taught in Ukrainian. Prerequisite: Three years of another Slavic language or permission of instructor. LEC.

UKRA 516 INTENSIVE UKRAINIAN LANGUAGE AND CULTURE II  3  H
(NEW) A practical Ukrainian language course involving advanced study of the grammar, conversation, composition. Reading of texts on a variety of subjects (culture, literature, history, folklore etc.), Taught in Ukrainian. Prerequisite: Three years of a Slavic language or permission of instructor. LEC.

SOCIOLOGY

CHANGE: COURSE DESCRIPTION
SOC 490 INTERNSHIP IN SOCIOLOGY  3  S
(OLD) The purpose of this course is to encourage students to think sociologically about social issues by working as volunteer interns for non-profit community or campus organizations. Enrollment must be approved by the departmental Undergraduate Studies Committee. See the department's Director of Undergraduate Studies for guidelines. Prerequisite: 21 credits in sociology with a 3.0 GPA and permission of the instructor. FLD

SOC 490 INTERNSHIP IN SOCIOLOGY  3  S
(NEW) The purpose of this course is to encourage students to think sociologically about social issues by working as volunteer interns for non-profit community or campus organizations. Enrollment must be approved by the departmental Undergraduate Studies Committee in the semester prior to participation in the internship. See the department's Director of Undergraduate Studies for guidelines. Not open to students who have completed SOC 590. Prerequisite: 21 credits in sociology with a 3.0 GPA and permission of the instructor and department. FLD

SPEECH-LANGUAGE-HEARING: SCIENCES AND DISORDERS

CHANGE: COURSE DESCRIPTION AND PREREQUISITE
SPLH 660 RESEARCH METHODS IN SPEECH-LANGUAGE-HEARING  3  S
(OLD) An introduction to basic concepts of scientific methodology and of statistical and psychophysical measurement. Study of the application of these concepts to research in speech, language, and hearing. The complimentary nature of the research process and the clinical process will be emphasized. Graduate students who take this course must complete additional requirements. An introduction to basic concepts of scientific methodology and of statistical and psychophysical measurement. Study of the application of these concepts to research in speech, language, and hearing. The complimentary nature of the research process and the clinical process will be emphasized. Graduate students who take this course must complete additional requirements.

SPLH 660 (NEW) RESEARCH METHODS IN SPEECH-LANGUAGE-HEARING  3  S
Research Methods is about the methods used to conduct, describe and evaluate science in communication disorders. Goals for learner outcomes include: 1) evaluation of research including adequacy of research to address scientific and clinical problems, 2) reading, summarizing and describing research through a literature review, 3) describing a hypothetical research study that addresses a specific question or hypothesis identified by the student, and 4) providing constructive
peer reviews of research paper drafts. Prerequisite: 9 credits of SPLH course work; English 101 and 102 (or course meeting core skill in written communication); or consent of instructor.

WOMEN, GENDER, & SEXUALITY STUDIES

CHANGE: COURSE DESCRIPTION AND NEW REQUEST TO CROSSLIST COURSE IS CURRENTLY CROSSLISTED.

WGSS 570 MEN AND MASCULINITIES 3 H
An intensive examination of the history and theory of masculinities in the Western world since the sixteenth century. Students will become acquainted with some of the key theories of men and masculinities, examine in depth the interplay between manhood and modernity, and develop research projects on a topic negotiated with the instructor. May be repeated if content varies sufficiently. (Same as HWC 570) LEC

WGSS 570 MEN AND MASCULINITIES 3 H
An intensive examination of the history and theory of masculinities in the Western world since the sixteenth century. Students will become acquainted with some of the key theories of men and masculinities, examine in depth the interplay between manhood and modernity, and develop research projects on a topic negotiated with the instructor. May be repeated if content varies sufficiently. Prerequisite: an upper-division course in HIST, HWC, or WGSS; or permission of instructor. (Same as HIST 626, HWC 570) LEC

CHANGE: COURSE DESCRIPTION AND NEW REQUEST TO CROSSLIST COURSE IS CURRENTLY CROSSLISTED.

WGSS 575 BODY, SELF AND SOCIETY 3 H
An examination of the role of the human body in the creation of personal and social identities in the West since the sixteenth century. Contemporary theories of embodiment are applied to a variety of historical themes, which may include posture, manners and morality; cleanliness and hygiene; exercise, dieting and body-building; sexuality and personal identity; fashion, make-up and cosmetic surgery; vegetarianism, self-help literature and alternative medicine; tattooing and body modification; and the history of the senses. (Same as HWC 575)

WGSS 575 BODY, SELF AND SOCIETY 3 H
An examination of the role of the human body in the creation of personal and social identities in the West since the sixteenth century. Contemporary theories of embodiment are applied to a variety of historical themes, which may include posture, manners and morality; cleanliness and hygiene; exercise, dieting and body-building; sexuality and personal identity; fashion, make-up and cosmetic surgery; vegetarianism, self-help literature and alternative medicine; tattooing and body modification; and the history of the senses. Prerequisite: an upper-division course in HIST, HWC, or WGSS; or permission of instructor. (Same as HIST 625, HWC 575)

ii. Degree Requirements for Approval

1. GERMANIC LANGUAGES & LITERATURES – CHANGE TO EXISTING MAJOR

Hours required: 30

Required courses
After completion of German 202: Intermediate German II, students will need to complete 16 credits as follows:

- GERM 301 High Intermediate German I (3)
- GERM 302 High Intermediate German II (3)
- GERM 315 German Literature and the Modern Era (3)
- GERM 316 Discussion Section: German Literature and the Modern Era (1)
- GERM 401 Advanced German I (3)
- GERM 580 Senior Capstone Course: German-Speaking Europe Today (3)

GERM 315 and GERM 316 must be completed before students can take a course beyond GERM 402 (except GERM 444 and GERM 462).

Admission to 400- and 500-level courses after GERM 402 (except GERM 444 and GERM 462) without completion of GERM 315 and GERM 316 is with permission of the Undergraduate Advisor only.

**Elective courses**
A minimum of 14 credit hours at the 300, 400, and 500 levels must be completed beyond the required courses. 12 of these credit hours must be at the 400 or 500 level. In exceptional cases, undergraduates may take courses at the 600 level with permission of the Undergraduate Advisor and the instructor.

With permission of the Undergraduate Advisor, 6 credit hours at the 300, 400, or 500 levels may be counted toward the major by completing two approved courses offered by other departments with significant content related to German-speaking Europe. A 600-level course may be counted with approval of the Undergraduate Advisor.

**Residency Requirement.** At least 15 hours of coursework at the 300, 400, and 500 levels, including the senior capstone course, GERM 580, must be completed in residence at KU.

**Department of Germanic Languages & Literatures Proposed Undergraduate Curriculum**
**November 15, 2012**

**Current requirements for the B.A. major in Germanic Languages and Literatures**

**Major**
First- and Second-Year Preparation: Language Proficiency Sequence
- GERM 104 [Elementary German I], 108 [Elementary German I], 212 [Intermediate German II], and 216 [Intermediate German II] should be completed as early as possible.

After GERM 216, the major requires 30 hours, 300 and above:

4 required intermediate core courses (12 hours), including
- 2 intermediate composition courses selected from
  - GERM 340 Deutsche Grammatik [German Grammar, offered in our Summer Language Institutes in Eutin and Holzkirchen]
  - GERM 344 German History and Writing Practice
  - GERM 348 German Culture and Writing Practice

- 2 introductory literature courses selected from
  - GERM 400 Introduction to German Literary Masterpieces [offered in our SLI in Holzkirchen]
  - GERM 408 Introduction to German Literature I
  - GERM 416 Introduction to German Literature II

5 required advanced courses 500 and above (15 hours), including
- 6 hours of literature

1 elective course 300 or above (3 hours)

2. **GERMANIC LANGUAGES & LITERATURES – CHANGE TO EXISTING MINOR**
   The minor provides students with a comprehensive introduction to the language and cultural forms of the German-speaking Europe, including literature, the arts, history, business, and politics.
Hours required: 18

Required courses
After completion of German 202: Intermediate German II, students will need to complete the following two courses:

- GERM 301 High Intermediate German I (3)
- GERM 302 High Intermediate German II (3)

Elective courses
12 additional hours at the 300, 400, and 500 levels. GERM 315 and GERM 316 are strongly encouraged because they are prerequisites for courses above GERM 402 (except GERM 444 and GERM 462).

One approved 3-credit course offered by another department or program and with significant content related to German-speaking Europe (300-500 level) may be counted toward the German minor. A 600-level course may be counted only with approval of the Undergraduate Advisor.

At least 9 credits at the 300 level and above must be acquired in residence at KU.

Current Minor Requirements
After completion of GERM 216, the minor requires 18 hours, 300 and above:

- 2 composition courses selected from GERM 340, GERM 344, and GERM 348
- 2 introductory literature courses selected from GERM 400, GERM 408, and GERM 416
- 2 electives numbered 300 or above, for example:
  
  GERM 352 Business German
  GERM 444 German Conversation for Everyday Use

Advanced literature, for example:
GERM 572 German Literature from 1805-1890
GERM 576 German Literature from 1890 to the Present
GERM 616 Topics in German Literature: _____

Advanced language, for example:
GERM 618 Topics in German Language and Linguistics: _____
GERM 626 Idiomatic Usage in Modern Colloquial and Literary German
GERM 630 Advanced German Grammar

Cultural studies, for example:
GERM 588 Deutsche Kulturkunde I
GERM 590 Deutsche Kulturkunde II
GERM 620 Topics in German Culture and Folklore: _____

CURRENT DEPARTMENTAL HONORS REQUIREMENTS

Departmental Honors. To qualify for the B.A. in German with Honors, students must have a minimum grade point average of 3.25 overall and 3.5 in German at graduation. Students can earn Departmental Honors in German by completing an honors research project during their final year at the University of Kansas. Topics are selected in consultation with the faculty project adviser from Germanic Languages & Literatures. Applications for Departmental Honors must be submitted by the end of the first week of classes, normally during the fall of senior year. Upon acceptance of an application, the student registers for the GERM 598-GERM 599 sequence. The student presents the completed research project to the project advisor and two other members of the Departmental Honors Committee about one month before concluding his or her final semester at KU. A grade of B or higher in GERM 598 and 599 is required for Departmental Honors. GERM 598 and 599 may not be used to satisfy other course
PROPOSED DEPARTMENTAL HONORS REQUIREMENTS

Departmental Honors in German

To graduate with honors in German, an undergraduate must demonstrate an ability to work independently and critically in language and literature. To begin the program, students must consult the departmental honors adviser before the senior year and submit a departmental honors intent form.

Candidates must be eligible to take courses numbered 500 and above. To qualify for the B.A. in German with honors, the student must have a minimum grade-point average of 3.25 overall and 3.5 in German at graduation and complete the following requirements:

1. The requirements for the major (see above) must include among the required 30 hours one enrollment (3 hours) in German courses at the 700 level or above with a grade of B or higher. This requirement may not be met by enrollment in GERM 753 Investigation and Conference.
2. In addition to the requirements for the major, the student must enroll in 3 hours of GERM 753 Investigation and Conference with a faculty member of the student’s choice, working in an area of mutual interest. The student prepares a research project upon which the course grade largely rests. The research project may not be used to satisfy other course requirements. A grade of B or higher in GERM 753 is required for completion of the honors program.
3. Honors candidates also participate in an honors examination with 3 members of the faculty, held before the end of the student’s last semester of academic work. In addition to the research project, other topics in German studies may be discussed.

JUSTIFICATION

We offer our students a diverse and challenging program in the language and cultural forms of German-speaking Europe, including literature, the arts, history, business, and politics. Our program is characterized by personalized advising, interdisciplinary flexibility, co-curricular activities, and opportunities to conduct independent research and to study and undertake internships abroad. Each student’s progress toward his or her goal will be monitored on a regular basis and by a variety of means.1

Our courses at the 100, 200, and 300 levels emphasize student involvement with the aim of developing students’ use of the German language, including the ability to comprehend, interpret, and produce spoken, written, and multimedia texts in different genres. Cultural topics are integrated into instruction in the first semester. 100-level courses focus on everyday topics, 200-level courses continue exploring these topics and introduce students to short literary and non-literary texts, and students at the 300-level and above are intensively engaged with analyzing and discussing German literature, films, historical texts, and journalism. At the 400 and 500 levels, survey courses provide students with a broader perspective on German cultural traditions, while other advanced courses often have a thematic focus. Courses taken in departments such as the History of Art, Philosophy, Political Science, Slavic Languages & Literatures, Sociology, and Theatre will enhance students’ study of the language and culture of German-speaking Europe.

All of our courses except GERM 315: German Literature and the Modern Era are taught in German. Majors will have the option of taking two approved courses offered by other departments that are taught in English and include significant content related to German-speaking Europe.

1 We are currently assessing undergraduate writing. We are also devising a senior survey and exit interview, to be required in the final semester for all students with a major or minor in German.
Both the German major and minor can be combined with majors and minors in other departments. Many students take advantage of this opportunity and combine their study of German with Linguistics, Business, Philosophy, European Studies, and History, for example.

Students who have already declared a German major or minor will have the option of completing the requirements in effect prior to Fall 2013. These students will need to meet with an Undergraduate Advisor to ensure that all outstanding requirements can be met. Students who declare a major or minor starting in Fall 2013 must complete the new degree requirements.

I. Reports, guidelines, and programs informing proposed curriculum

- 2012 Language Consultancy Working Group Preconvention Workshop, held in conjunction with annual MLA annual conference, attended by Vanchema and Brown. Focus: curriculum development in the foreign language department, learning goals and pedagogy; collaboration and governance: transforming the two-tiered system.
- American Association of Teachers of German, http://www.aatg.org/: conferences, Advocacy Toolkit, and networking resulting from Vanchema’s participation in first year (2001) of Transatlantisches interkulturelles Nachwuchsfoerderungsprogramm Deutsch als Fremdsprache, a program organized by the AATG. Goal of TraiNDaF: develop a strong leadership cadre from different types of institutions who will inform and develop other colleagues in their region of the U.S.
- Review of undergraduate German programs at other institutions

II. Institutional factors informing proposed curriculum

- Review of curricula in other KU departments
- Discussions during AY 2011-12 with at least 60 undergraduate German majors and minors and students interested in pursuing a German major or minor
- CLAS wish to see capstone course in each department
- Bold Aspirations: strengthen recruitment, teaching, and mentoring to prepare undergraduate students for lifelong learning, leadership, and success
  - redesign courses to enhance student learning
  - promote active learning, encourage development of courses that take advantage of new pedagogical methods and IT
  - enhance experiential learning opportunities
  - invest in first-year intellectual experiences by developing a topical, discussion-based first-year seminar
  - Strategic Initiatives
    - Reform of General Education requirements
- Spreadsheet created by Marcia Powers, CLAS, containing information on all GLL course offerings and enrollments Fa95 to Sp12. This data was useful in identifying courses that have not been offered in at least 4 years (and whose numbers were therefore available for other courses) and courses that have been offered since infrequently Fa95 and could therefore be deleted from the catalog.
- Discussions with Karen Ledom, Administrative Director, Student Academic Services

III. Goals for proposed curriculum

- Rethink answer to “Why study Germanic languages and literatures?” (online catalog, http://www2.ku.edu/~distinction/cgi-bin/6122), shifting emphasis from “Because understanding the language, literature, and culture of Central Europe is essential for our history and our future” to thinking in terms of how translilingual competence and transcultural competence (MLA) enable our students to participate actively and productively in our increasingly global world.
• Develop a German Studies curriculum that moves away from the traditional language and literature approach and gives students a more contemporary, diverse, and challenging program in the language and cultural forms of German-speaking Europe, including literature, the arts, history, business, and politics.
• Allow interdisciplinary flexibility by allowing courses taught in English outside the department but with significant content related to German-speaking Europe to count toward the major and minor.
• Offer one course in English that not only counts toward the new major and minor but is also attractive to or fulfills requirements for other degree programs, which could help our overall enrollment.
• Bring major and minor more into line with other KU undergraduate degrees by focusing on courses at the 300, 400, and 500 levels and allowing undergraduates to take courses at the 600 level only in exceptional cases.
• Develop a more clearly defined sequence of courses at the advanced intermediate and advanced levels (300- to 500-level) to help ensure continued development of multiple literacies through the comprehension and production of literary and non-literary spoken, written, and multimedia texts in cultural contexts, with an emphasis in advanced courses on expressive functions of German, grammatical structures, and acquisition of vocabulary.
• Delete or change outdated courses that do not reflect current best practices in the discipline.
• Develop true capstone course for majors (currently, all courses 500+ are considered capstone courses).
• Make major and minor requirements more flexible by reducing requirements for specific courses.
• Ensure articulation between courses at all levels and with courses taken in our Summer Language Institutes.
• Better integrate development of critical thinking into courses at all levels.
• Continue working with the Office of Study Abroad to integrate study abroad more effectively into curriculum.
• Redesign requirements for Departmental Honors (currently, students must take a 700-level course before beginning an Honors project).
• Monitor each student’s progress toward his or her goal on a regular basis and using a variety of means (assessment of written work, exit interview and survey, etc.).
• Develop and maintain a strong co-curricular program to enhance the curriculum.
• Update information in Undergraduate Catalog to reflect new curriculum.

After consulting with Karen Ledom, SAS, and Associate Dean Ann Cudd, College of Arts and Sciences, we decided that it is best to wait until next year before requesting a degree name change. This process would need to start with Associate Dean Cudd and then move to the Provost’s Office and the Board of Regents, which would slow down the approval process of our proposed curriculum. We feel that it is crucial need to implement the new curriculum in Fall 2013, so we propose keeping the current degree name for one more year. We would start the approval process after the new curriculum has been approved.

3. HUMAN SEXUALITY – NEW MAJOR

COLLEGE OF LIBERAL ARTS AND SCIENCES
THE UNIVERSITY OF KANSAS
Student Academic Services
109 Strong Hall ~ Phone: (785) 864-3500

Change in Major or Minor Requirements/New Degree or Minor Approval Form

Date Submitted: 9 November 2012
Dept/Program: Women, Gender and Sexuality Studies
Phone Number: 864-2311
Undergraduate Coordinator: John G. Younger
E-mail Address: jyounger@ku.edu

Return as a Word e-mail attachment to kjh@ku.edu. Proposal will be forwarded to the Committee on Undergraduate Studies and Advising (CUSA). Questions: Contact Karen Ledom at 864-3513 or kjh@ku.edu.
This is a request for (please check):

- [X] New Major
- [ ] Change in existing major
- [ ] New concentration within existing major
- [ ] Deletion of existing major
- [ ] New Minor
- [ ] Change in existing minor
- [ ] New concentration within existing minor
- [ ] Deletion of existing minor

I. **STATE PROPOSAL IN DETAIL.** List all new requirements, changes or deletions. **Include current requirements and specify what is being changed (if anything).**

Proposal for a new major: Human Sexuality

Courses required for each student in the major:

**Survey Course** – 3 hours

- either HSES 489 (Health and Human Sexuality)
- or PSYC 502 (Human Sexuality)
- or SW 303 (Human Sexuality in Everyday Life)

(one of these three courses is already required for the Human Sexuality Minor offered by the WGSS Department; written approval from the chairs or dean of the respective units will be requested and forward to CLAS Academic Services / kjh@ku.edu).

**Core** – 12 hours

4 courses, including at least one course each from the social sciences and humanities core lists.

**Core Social Science Courses**  3

- AAAS 372/ANTH 372—Religion, Power & Sexuality in Arab Lands
- ANTH 359—Anthropology of Sex
- ANTH 583/WGSS 583—Love, Sex, and Globalization
- POLS 640—Reproductive Policy
- PSYC 410—Intimate Relationships
- PSYC 555—Evolutionary Psychology
- PSYC 521/WGSS 521—Women and Violence
- PSYC 689/WGSS 689—Conceptual Issues in Human Sexuality

**Core Humanities Courses**  3

- AAAS 598/HIST 598—Sexuality and Gender in African History
- CLSX 315—Women in Ancient Art and Society
- CLSX 374/HWC 374—Gender and Sexuality, Ancient and Modern
- EALC 418/618—Sexual Politics Dynastic China
- EALC 575—Love, Sexuality and Gender in Japanese Lit
- ENGL 572—Women and Literature (if relevant)
- HIST 608—History of Sexuality
- PHIL 504—Philosophy of Sex and Love
- REL 374—Religious Perspectives on Selfhood & Sexuality
- WGSS 327—Perspectives: Lesbian, Gay, Bisexual, Transgender
- WGSS 333—The Politics of Physical Appearance
- WGSS 345—Pop Culture in Africa: Thrills, Romance & Sexualities
- WGSS 396—Topic: Gay & Lesbian Cultures
- WGSS 396—Topic: Sexuality & Sexual Constructions
- WGSS 396—Topic: History, Theory, & Representation of Lesbianism
- WGSS 396—Topic: Gender & Sexuality in Cyberspace
- WGSS 396—Topic: Sex & Gender: Fairbanks to Marilyn
- WGSS 563—Gender, Sexuality and the Law
### Methods

**One methods course  3 hours**
- ABSC 308—Research Methods & Application
- AMS 360—Theory and Method
- BIOL 598—Research Methods
- COMS 356—Intro Behavioral Res Methods in Communication
- ENGL 308—Intro to Literacy Criticism & Theory
- HIST 301—The Historian's Craft
- HSES 465—Program Assessment & Evaluation
- HWC 325—Theory & Method Interdisciplinary Stds
- POLS 306—Political Sci Methd of Inquiry
- PSYC 200—Research Methods in Psychology (was PSYC 300)
- SOC 310—Introduction to Social Research
- Honors thesis: students do research under faculty supervision

### Secondary courses

**Two Secondary courses (or survey or core courses)  6 hours**
- AAAS 554—Contemporary Health Issues in Africa
- ABSC 268—Introduction to Marriage and Family Relations
- ABSC/PSYC 626—Psychology of Adolescence
- AMS 110/112 / SOC 110/112—American Identities
- AMS 344/WGSS 396—African Amer Women: Colonial to Present
- ANTH 389/WGSS 389—Anth of Gender: Female, Male & Beyond
- COMS 344—Relational Communication
- COMS 440—Gender and Communication
- COMS 455/REL 475—Loving Relationships
- HIST 324/WGSS 324—History of Women and the Body
- HWC 570/WGSS 570—Men and Masculinities
- HWC 575/WGSS 575—The Body, Self and Society
- PHIL 674—Philosophy of Law
- POLS 600/WGSS 600—Contemporary Feminist Political Theory
- POLS 630/WGSS 630—Politics of Identity
- PSYC 465—Stereotypes & Prejudice Across Cultures
- PSYC/WGSS 468—Psychology of Women
- SOC 220—Sociology of Families
- SOC 617—Women and Health Care
- SOC 628—Families and Social Inequalities
- WGSS 333—Politics of Physical Appearance
- WGSS 396—Topic: Public Health & the Human Body

### Electives

**Two elective courses (or additional survey, core, or secondary courses)  6 hours**
- Special Topics Courses / Studies in ___ / Seminar in ___
- Independent Study/Directed Study (e.g., WGSS 498)
- Internship Courses (e.g., PSYC 483: Undergraduate Internship)
- Honors Thesis/Senior Essay/Honors Essay
- Service Learning Courses (e.g., WGSS 650: Service Learning)

**TOTAL  30 chr**
II. STATE JUSTIFICATION FOR MAKING CHANGES. Give a brief, but complete, explanation of the reasons for making the proposal.

The Department of Women, Gender, and Sexuality Studies (WGSS) at the University of Kansas proposes to establish a new BA/BGS degree program in Human Sexuality beginning in Spring 2013.

We need no new funding, faculty, staff or equipment to host this new major.

We think a new major in Human Sexuality will appeal to undergraduates and will boost our already growing numbers of students interested in our programs. And we are certain there are employment opportunities for graduates in this area.

In February 2012, we surveyed students in two KU courses: an introductory course (WGSS 201, Women’s Studies: An Interdisciplinary Introduction, and PSYC/WGSS 689, Conceptual Issues in Human Sexuality). The survey is included in Appendix C. All surveys were administered anonymously. Students were asked the following question:

Would you major (or double major) in Human Sexuality, if this major were offered at KU?

(If you are a junior or senior, answer based on whether you would have majored/double majored in Human Sexuality, had this major been offered when you first entered KU.)

Students could answer Yes, Maybe, or No. The quantitative data suggested a strong interest in a human sexuality major. In addition, in their comments, many students expressed a strong interest in pursuing such a major.

Students trained in this program would be eminently suitable for graduate study in programs like Social Welfare, Psychology, Sociology, and Anthropology and could be employed in a variety of academic settings, human services organizations, and governmental positions, as well as in a growing non-governmental, non-profit sector that serves global and international human rights needs.

More specifically, students graduating with a BA/BGS in Human Sexuality at KU could enter a MA or PhD program in a social science department like Anthropology, Sociology, Psychology, and Social Welfare or could be admitted to law school (roughly 10-20% of our present graduates with a BA/BGS in women's studies or with a Human Sexuality minor apply to law school). MA and/or PhD degrees could lead to employment at a wide range of educational institutions, including counselors and teachers (with the appropriate certification and education degrees) in high schools, community colleges, and state and private colleges and universities. JD degrees could lead to practice with a focus on civil rights or to positions in advocacy organizations.

Apart from higher education opportunities, there are job opportunities in non-profit service organizations and in the private sector. For instance, paid internships at the Willow Domestic Violence Center, Lawrence KS, were advertised early in 2012 for a starting date in either Spring 2013. Risk management and diversity positions in private companies have also begun to proliferate; the corporate world has begun to realize that they, like public institutions, need to foster more inclusive and tolerant climates in the work force, and to that end they have begun hiring facilitators, counselors, compliance officers, and risk managers.

No other universities in Kansas or neighboring states offer a major in human sexuality, although KU does offer a minor in human sexuality.

Several colleges and universities in other parts of the U.S. and Canada offer undergraduate majors related to sexuality:

- Some offer majors in Sexuality Studies or LGBT Studies (i.e., Hobart and William Smith Colleges, Ohio State University, San Diego State University, University of Toronto, York University).
- Some offer majors in Women, Gender, and Sexuality Studies, with a concentration or specialization in LGBT Studies or Sexuality Studies (University of Cincinnati, Yale University).
- Some offer majors in Gender and Sexuality Studies (Brown University, Miami University, Rice University, University of Chicago, Wesleyan University).
III. **EFFECTIVE DATE.** Unless otherwise requested by the department and approved by CUSA and College Assembly, the new requirements will apply to students whose KU initial term is the one immediately following final approval of the requirements.

**Spring 2013**

IV. **CONSULTATION WITH OTHER DEPARTMENTS/SCHOOLS OF THE UNIVERSITY.** If the proposal includes requiring coursework from any other department or school within the University, **written** approval from the chairperson or dean of that department or school must be provided to CLAS Student Academic Services (109 Strong Hall). E-mail approval to kjh@ku.edu is acceptable.

Although one of the three introductory courses offered by other departments is already required of the Human Sexuality minor, permission to include these three courses for the major will be requested and forwarded to CLAS Student Academic Services / kjh@ku.edu.

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**OFFICE USE ONLY**

Date approved by Subcommittee: _______________ Date reported to College Assembly: _______________

Date approved by CUSA: _______________ Date changes entered in ARTS: _______________

Effective Term: _______________

________

4. **VISUAL ART BFA – CHANGE TO EXISTING MAJOR**

**COLLEGE OF LIBERAL ARTS AND SCIENCES**
**THE UNIVERSITY OF KANSAS**
Student Academic Services
109 Strong Hall  ~ Phone: (785) 864-3500

Change in Major or Minor Requirements/New Degree or Minor Approval Form

Date Submitted: Nov. 8, 2012
Dept/Program: Visual Art
Phone Number: 785-864-7919
Undergraduate Coordinator: Ruth Bowman (submitted by Amy Lampe)
E-mail Address: rbowman@ku.edu (amylampe@ku.edu)

**Return as a Word e-mail attachment to kjh@ku.edu.** Proposal will be forwarded to the Committee on Undergraduate Studies and Advising (CUSA). Questions: Contact Karen Ledom at 864-3513 or kjh@ku.edu.

This is a request for (please check):

- [ ] New Major
- [x] Change in existing major
- [ ] New concentration within existing major
- [ ] Deletion of existing major
- [ ] New Minor
- [ ] Change in existing minor
- [ ] New concentration within existing minor
- [ ] Deletion of existing minor
II. **STATE PROPOSAL IN DETAIL.** List all new requirements, changes or deletions. **Include current requirements and specify what is being changed (if anything).**

We are requesting a change in the distribution of 10 credit hours in the Visual Art BFA (general) major. The current requirements allow for the following:
- ART 540 – Professional Activities Seminar (1 hr)
- ART 695 – Directed Study I (4 hrs)
- ART 696 – Directed Study II (5 hrs)

General Option
The general option requires 49 major hours, including a minimum of 15 junior/senior hours in the major, a minimum of 15 major hours in residence, and a minimum 2.0 KU junior/senior grade-point average in the major.

**Senior Studio Requirements** (10 hours)
- Prerequisite: 30 hours of studio art courses.
  - ART 540 Professional Activities Seminar (1) 3
  - ART 695 Directed Study I (4) 3
  - ART 696 Directed Study II (5) 4

II. **STATE JUSTIFICATION FOR MAKING CHANGES.** Give a brief, but complete, explanation of the reasons for making the proposal. The amount of coursework done in these 3 classes is not currently being accurately reflected in the assigned credit hours. Students in ART 540 meet for 160 contact hours per week, while students in ART 695 and 696 are not assigned coursework worthy of the extra credit given them. We would like to adjust these credit hours to give ART 540 the “weight” it deserves.

III. **EFFECTIVE DATE.** Unless otherwise requested by the department and approved by CUSA and College Assembly, the new requirements will apply to students whose KU initial term is the one immediately following final approval of the requirements.
*Fall 2013, please*

V. **CONSULTATION WITH OTHER DEPARTMENTS/SCHOOLS OF THE UNIVERSITY.** If the proposal includes requiring coursework from any other department or school within the University, **written** approval from the chairperson or dean of that department or school must be provided to CLAS Student Academic Services (109 Strong Hall). E-mail approval to kjh@ku.edu is acceptable.

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5. FILM & MEDIA STUDIES – CHANGE TO EXISTING MAJOR ADMISSION REQUIREMENTS

COLLEGE OF LIBERAL ARTS AND SCIENCES
THE UNIVERSITY OF KANSAS
Student Academic Services
109 Strong Hall ~ Phone: (785) 864-3500

Change in Major or Minor Requirements/New Degree or Minor Approval Form

Date Submitted: 13 November 2012
Dept/Program: Film and Media Studies
Phone Number: 4-1351
Undergraduate Coordinator: Catherine L. Preston
E-mail Address: cpreston@ku.edu

This is a request for (please check):

__ New Major
_x_ Change in existing major
__ New concentration within existing major
__ Deletion of existing major
__ New Minor
__ Change in existing minor
__ New concentration within existing minor
__ Deletion of existing minor

IV. STATE PROPOSAL IN DETAIL. List all new requirements, changes or deletions. Include current requirements and specify what is being changed (if anything).

Intention to change Admission Requirements to the Major.

Current requirements are:
A minimum GPA of 2.5 between
FMS 100, Introduction to Film and Media Studies and
FMS 380, American Popular Culture of: ______.

Proposed requirements are:
GPA of 2.5 between
FMS 100, Introduction to Film and Media Studies
FMS 200, Introduction to Film and Media Aesthetics.
FMS 380, American Popular Culture of: ______

V. STATE JUSTIFICATION FOR MAKING CHANGES. Give a brief, but complete, explanation of the reasons for making the proposal.

Faculty in the Department of Film and Media Studies, and in discussion with Amy Lampe, College Advisor, have decided that a 2.5 GPA between the three courses is a better predictor of success in both the B.A. and B.G.S. degrees because of the additional writing assignments and the small production assignment component of FMS 200.

VI. EFFECTIVE DATE. Unless otherwise requested by the department and approved by CUSA and College Assembly, the new requirements will apply to students whose KU initial term is the one immediately following final approval of the requirements.

FMS faculty request an effective date of Fall semester 2013 for all incoming majors.
VI. CONSULTATION WITH OTHER DEPARTMENTS/SCHOOLS OF THE UNIVERSITY. If the proposal includes requiring coursework from any other department or school within the University, written approval from the chairperson or dean of that department or school must be provided to CLAS Student Academic Services (109 Strong Hall). E-mail approval to kjh@ku.edu is acceptable.

OFFICE USE ONLY

Date approved by Subcommittee: __________________ Date reported to College Assembly: __________________

Date approved by CUSA: __________________ Date changes entered in ARTS: __________________

Effective Term: __________________

7. BA AND BS BIOCHEMISTRY – CHANGE TO EXISTING MAJOR

COLLEGE OF LIBERAL ARTS AND SCIENCES
THE UNIVERSITY OF KANSAS
Student Academic Services
109 Strong Hall ~ Phone: (785) 864-3500

Change in Major or Minor Requirements/New Degree or Minor Approval Form

Date Submitted: 11/8/12
Dept/Program: Undergraduate Biology Program – BS Biochemistry major
Phone Number: 4-5883
Undergraduate Coordinator: Greg Burg (these changes submitted by Jen Weghorst, Asst Dir)
E-mail Address: weghorst@ku.edu

Return as a Word e-mail attachment to kjh@ku.edu. Proposal will be forwarded to the Committee on Undergraduate Studies and Advising (CUSA). Questions: Contact Karen Ledom at 864-3513 or kjh@ku.edu.

This is a request for (please check):

___ New Major
___ Change in existing major
___ New concentration within existing major
___ Deletion of existing major
___ New Minor
___ Change in existing minor
___ New concentration within existing minor
___ Deletion of existing minor

VII. STATE PROPOSAL IN DETAIL. List all new requirements, changes or deletions. Include current requirements and specify what is being changed (if anything).

Change to BS in Biochemistry
General Science Requirements 45 hours
CHEM 130 General Chemistry I (5), CHEM 170 Chemistry for the Chemical Sciences I (or CHEM 190 Honors) (5)
CHEM 135 General Chemistry II (5) CHEM 175 Chemistry for the Chemical Sciences II (or CHEM 195 Honors) (5)
CHEM 620 Analytical Chemistry (3)
CHEM 330 Organic Chemistry I (or CHEM 380 Honors) (3)
CHEM 331 Organic Chemistry I Laboratory (2)
CHEM 335 Organic Chemistry II (or CHEM 385 Honors) (3)
CHEM 336 Organic Chemistry II Laboratory (2)
CHEM 510 Biological Physical Chemistry (3) or CHEM 646 530 Physical Chemistry I (3)
MATH 121 Calculus I (5)
MATH 122 Calculus II (5)

II. STATE JUSTIFICATION FOR MAKING CHANGES. Give a brief, but complete, explanation of the reasons for making the proposal.

We are proposing to add the new courses CHEM 170 and 175 as alternatives to CHEM 184/185 and CHEM 188/189 for biochemistry majors, as according to the course descriptions, the chemistry department has intended these courses “for students pursuing or considering a major in one of the chemical sciences (such as chemistry, biochemistry, chemical engineering or petroleum engineering).” CHEM 170 and 175 cover the same basic material as CHEM 184/185 and 188/189. The change in CHEM 184/185 and 188/189 numbers was approved recently by CUSA and CAC.

III. EFFECTIVE DATE. Unless otherwise requested by the department and approved by CUSA and College Assembly, the new requirements will apply to students whose KU initial term is the one immediately following final approval of the requirements.

VII. CONSULTATION WITH OTHER DEPARTMENTS/SCHOOLS OF THE UNIVERSITY. If the proposal includes requiring coursework from any other department or school within the University, written approval from the chairperson or dean of that department or school must be provided to CLAS Student Academic Services (109 Strong Hall). E-mail approval to kjh@ku.edu is acceptable.

OFFICE USE ONLY

Date approved by Subcommittee: ________________ Date reported to College Assembly: ________________

Date approved by CUSA: ________________ Date changes entered in ARTS: ________________

Effective Term: ________________

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COLLEGE OF LIBERAL ARTS AND SCIENCES
THE UNIVERSITY OF KANSAS
Student Academic Services
109 Strong Hall ~ Phone: (785) 864-3500

Change in Major or Minor Requirements/New Degree or Minor Approval Form

Date Submitted: 11/8/12
Dept/Program: Undergraduate Biology Program – BA Biochemistry major
Phone Number: 4-5883
Undergraduate Coordinator: Greg Burg (these changes submitted by Jen Weghorst, Asst Dir)
E-mail Address: weghorst@ku.edu

This is a request for (please check):

__ New Major
_X_ Change in existing major
__ New concentration within existing major
__ Deletion of existing major
__ New Minor
__ Change in existing minor
__ New concentration within existing minor
__ Deletion of existing minor

VIII. STATE PROPOSAL IN DETAIL. List all new requirements, changes or deletions. Include current requirements and specify what is being changed (if anything).

Change to BA in Biochemistry
General Science Requirements 35-39 hours
CHEM 130 General Chemistry I (5), CHEM 170 Chemistry for the Chemical Sciences I (or CHEM 190 Honors) (5)
CHEM 135 General Chemistry II (5) CHEM 175 Chemistry for the Chemical Sciences II (or CHEM 195 Honors) (5)
CHEM 624 330 Organic Chemistry I (or CHEM 380 Honors) (3)
CHEM 625 331 Organic Chemistry I Laboratory (2)
CHEM 626 335 Organic Chemistry II (or CHEM 385 Honors) (3)
CHEM 640 510 Biological Physical Chemistry (3)

II. STATE JUSTIFICATION FOR MAKING CHANGES. Give a brief, but complete, explanation of the reasons for making the proposal.

We are proposing to add the new courses CHEM 170 and 175 as alternatives to CHEM 184/185 and CHEM 188/189 for biochemistry majors, as according to the course descriptions, the chemistry department has intended these courses “for students pursuing or considering a major in one of the chemical sciences (such as chemistry, biochemistry, chemical engineering or petroleum engineering).” CHEM 170 and 175 cover the same basic material as CHEM 184/185 and 188/189. The change in CHEM 184/185 and 188/189 numbers was approved recently by CUSA and CAC.

III. EFFECTIVE DATE. Unless otherwise requested by the department and approved by CUSA and College Assembly, the new requirements will apply to students whose KU initial term is the one immediately following final approval of the requirements.
VIII. CONSULTATION WITH OTHER DEPARTMENTS/SCHOOLS OF THE UNIVERSITY. If the proposal includes requiring coursework from any other department or school within the University, written approval from the chairperson or dean of that department or school must be provided to CLAS Student Academic Services (109 Strong Hall). E-mail approval to kjh@ku.edu is acceptable.

OFFICE USE ONLY

Date approved by Subcommittee: __________________       Date reported to College Assembly: __________________

Date approved by CUSA: _____________________________       Date changes entered in ARTS: ___________________________

Effective Term: _________________________________

Revisions requested for Undergraduate Biology Program major admissions requirements due to CHEM course renumbering and creation of CHEM 175

CURRENT:

Admission course requirements for Biochemistry, Biology, Human Biology, and Molecular Biosciences:

- Principles of Molecular and Cellular Biology. Satisfied by BIOL 150 or 151.
- Principles of Organismal Biology. Satisfied by BIOL 152 or BIOL 153.
- Foundations of Chemistry II. Satisfied by CHEM 188 or CHEM 189.
- Principles of Genetic. Satisfied by BIOL 350 or BIOL 360.

Admission course requirements for Microbiology:

- BIOL 150 Principles of Molecular and Cellular Biology
- CHEM 188 Foundations of Chemistry II
- BIOL 350 Principles of Genetics

Biology Admission GPA
Must have a grade-point average of at least 2.2 based on grades in BIOL 150, BIOL 152, CHEM 188, and BIOL 350 (or equivalents).

Microbiology Admission GPA
Must have a grade-point average of at least 2.2 based on grades in BIOL 150, CHEM 188, and BIOL 350 (or equivalents).
PROPOSED CHANGES:

Admission course requirements for Biochemistry, Biology, Human Biology, and Molecular Biosciences:

- Principles of Molecular and Cellular Biology. Satisfied by BIOL 150 or 151.
- Principles of Organismal Biology. Satisfied by BIOL 152 or BIOL 153.
- Chemistry II. Satisfied by CHEM 135 (formerly CHEM 188), CHEM 195 (formerly CHEM 189), or CHEM 175.
- Principles of Genetics. Satisfied by BIOL 350 or BIOL 360.

Admission course requirements for Microbiology:

- Principles of Molecular and Cellular Biology. Satisfied by BIOL 150 or 151.
- Chemistry II. Satisfied by CHEM 135 (formerly CHEM 188), CHEM 195 (formerly CHEM 189), or CHEM 175.
- Principles of Genetics. Satisfied by BIOL 350 or BIOL 360.

Biology Admission GPA

Must have a grade-point average of at least 2.2 based on grades in BIOL 150, BIOL 152, CHEM 135 (formerly CHEM 188) and BIOL 350 (or equivalents). KU's course repeat policy applies to grade-point average calculation.

Microbiology Admission GPA

Must have a grade-point average of at least 2.2 based on grades in BIOL 150, CHEM 135 (formerly CHEM 188) and BIOL 350 (or equivalents). Microbiology admission requirements differ from those for Biochemistry, Biology, Human Biology, and Molecular Biosciences, because BIOL 152 is not required for the B.A. and B.S. degrees in microbiology. KU's course repeat policy applies to grade-point average calculation.

8. THE FOLLOWING ARE ALL RELATED TO THE PHSX 211/216 AND PHSZ 212/236 CHANGSE:

CHANGES TO PHYSICS BA, BS AND MINOR:

Requirements for the B.A. Major in Physics

Bachelor of Arts in Physics Major Course Requirements

Physics Prerequisite or Co-requisite Knowledge. Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

- Calculus I. Satisfied by MATH 121 or MATH 141 (or equivalent).
- Calculus II. Satisfied by MATH 122 or MATH 142 (or equivalent).
- Vector Calculus. Satisfied by MATH 223
- **Elementary Linear Algebra.** Satisfied by MATH 290.
- **Differential Equations.** Satisfied by MATH 220 or MATH 320 (recommended).
- **Foundations of Chemistry I.** Recommended: CHEM 184 or CHEM 185.

**Physics Core Knowledge and Skills.** Majors must complete a course in each of the following areas:

- **Seminar in Physics, Astronomy, & Engineering Physics.** Satisfied by PHSX 150.
- **General Physics I.** Satisfied by PHSX 211 AND PHSX 216 or PHSX 213.
- **General Physics II.** Satisfied by PHSX 212 AND PHSX 236 or PHSX 214.
- **General Physics III.** Satisfied by PHSX 313.
- **Intermediate Physics Lab.** Satisfied by PHSX 316.
- **Introductory Quantum Mechanics.** Satisfied by PHSX 511.
- **Mechanics I.** Satisfied by PHSX 521.
- **Electricity and Magnetism.** Satisfied by PHXS 531.
- **Electronic Circuit Measurement and Design.** Satisfied by PHXS 536.
- **Physics Required Elective.** Satisfied by any lecture or laboratory course numbered 500 or higher.

**Concentration in Computational Physics**

**Physics Prerequisite or Co-requisite Knowledge.** Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

- **Programming I.** Satisfied by EECS 168.
- **Programming II.** Satisfied by EECS 268.
- **Elementary Linear Algebra.** Satisfied by MATH 290.
- **Elementary or Applied Differential Equations.** Satisfied by MATH 220 or MATH 320.
- **Foundations of Chemistry I.** Satisfied by CHEM 184.
- **Principles of Biology.** Satisfied by BIOL 100.
- **Introduction to Symbolic Logic.** Satisfied by PHIL 310.
- **Economics.** Satisfied by ECON 142 or ECON 144.

*CHEM 184, PHIL 310, ECON 142 or ECON 144, and BIOL 100 should be taken to fulfill B.A. general education requirements.

**Physics Core Knowledge and Skills.** Majors must complete a course in each of the following areas:

- **Seminar in Physics, Astronomy, and Engineering Physics.** Satisfied by PHSX 150.
- **General Physics I.** Satisfied by PHSX 211 AND PHSX 216 or PHSX 213.
- **General Physics II.** Satisfied by PHSX 212 AND PHSX 236 or PHSX 214.
- **General Physics III and Intermediate Physics Laboratory.** Satisfied by PHSX 313 and PHSX 316.
- **Mechanics I.** Satisfied by PHSX 521.
- **Electricity and Magnetism.** Satisfied by PHXS 531.
- **Electronic Circuit Measurement and Design.** Satisfied by PHXS 536.
- **Special Problems.** Satisfied by PHSX 500.
- **Numerical and Computational Methods in Physics.** Satisfied by PHSX 615.

**Requirements for the B.S. Degree in Physics**
Physics Prerequisite or Co-requisite Knowledge. Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

- **Computing and Programming.** Satisfied by: EECS 138 or EECS 168.
- **Calculus I.** Satisfied by: MATH 121 or MATH 141 (or equivalent).
- **Calculus II.** Satisfied by: MATH 122 or MATH 142 (or equivalent).
- **Seminar in Physics, Astronomy, & Engineering Physics.** Satisfied by: PHSX 150.
- **General Physics I.** Satisfied by PHSX 211 AND PHSX 216 or PHSX 213.
- **General Physics II.** Satisfied by PHSX 212 AND PHSX 236 or PHSX 214.
- **Foundations of Chemistry I.** Satisfied by CHEM 184 or CHEM 185.
- **Vector Calculus.** Satisfied by MATH 223 or MATH 243.
- **Elementary Linear Algebra.** Satisfied by MATH 290 or MATH 291.
- **Applied Differential Equations.** Satisfied by MATH 320.
- **Math Elective.** Satisfied by 1 of the following: PHSX 518, PHSX 718, MATH 526, MATH 530, MATH 558, MATH 581, MATH 590, MATH 628, MATH 646, MATH 647, MATH 648, MATH 660, MATH 661, or any 700-level MATH lecture course except MATH 701 and MATH 715.

Physics Core Knowledge and Skills. Majors must complete a course in each of the following areas:

- **General Physics III.** Satisfied by PHSX 313.
- **Intermediate Physics Lab.** Satisfied by PHSX 316.
- **Introductory Quantum Mechanics.** Satisfied by PHSX 511.
- **Physical Measurements or Electronic Circuit Measurement and Design.** Satisfied by PHSX 516 or 536.
- **Mechanics I.** Satisfied by PHSX 521.
- **Electricity and Magnetism.** Satisfied by PHSX 531.
- **Thermal Physics.** Satisfied by PHSX 671.
- **Undergraduate Research or Honors Research.** Satisfied by PHSX 503 or PHSX 501.
- **Physics Elective.** Satisfied by any PHSX lecture or laboratory course numbered 500 or higher and not part of the other specific requirements for the major.

Physics Required Electives. Majors must complete one of the following options:

Requirements for the Minor in Physics

Physics Minor Course Requirements

Student selecting this minor must complete courses as specified in each of the following areas:

- **General Physics I.** Satisfied by PHSX 211 AND PHSX 216 (or PHSX 213).
- **General Physics II.** Satisfied by PHSX 212 AND PHSX 236 (or PHSX 214).
- **General Physics III and Intermediate Physics Laboratory.** Satisfied by PHSX 313 and PHSX 316.
- **Mechanics I.** Satisfied by PHSX 521.
- **Electricity and Magnetism.** Satisfied by PHSX 531.
- **Physics Required Elective.** Satisfied by any 3 credit hour PHSX course numbered 500 or above.

CHANGES TO ASTRONOMY BA, BS AND MINOR:
Requirements for the B.A. Major in Astronomy

In addition to general education requirements for B.A. degrees in the College, 39.5 hours of astronomy, physics, mathematics, and chemistry are required.

Astronomy Prerequisite or Co-requisite Knowledge. Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

- Calculus I. Satisfied by MATH 121 or MATH 141 (or equivalent).
- Calculus II. Satisfied by MATH 122 or MATH 142 (or equivalent)
- Seminar in Physics, Astronomy, & Engineering Physics. Satisfied by PHSX 150
- General Physics I. Satisfied by PHSX 211 AND PHSX 216 or PHSX 213
- General Physics II. Satisfied by PHSX 212 AND PHSX 236 or PHSX 214
- Foundations of Chemistry I. Satisfied by CHEM 184 or CHEM 185.

Astronomy Core Knowledge and Skills. Majors must complete a course in each of the 5 following areas:

- Introductory Astronomy Laboratory or Observational Astrophysics. Satisfied by ASTR 196 or ASTR 596.
- Physical Astronomy, Honors. Satisfied by ASTR 391.
- Undergraduate Problems. Satisfied by ASTR 390.
- Stellar Astronomy. Satisfied by ASTR 591.
- Galactic & Extragalactic Astronomy. Satisfied by ASTR 592.

Astronomy Required Elective. Satisfied by PHSX 693, ASTR 691, or GEOL 572.

Requirements for the B.S. Degree in Astronomy

Bachelor of Science in Astronomy Course Requirements

Astronomy Prerequisite or Co-requisite Knowledge. Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

- Computing and Programming. Satisfied by EECS 138 or EECS 168.
- Calculus I. Satisfied by MATH 121 or MATH 141 (or equivalent).
- Calculus II. Satisfied by MATH 122 or MATH 142 (or equivalent)
- Seminar in Physics, Astronomy, & Engineering Physics. Satisfied by PHSX 150.
- General Physics I. Satisfied by PHSX 211 AND PHSX 216 or PHSX 213.
- General Physics II. Satisfied by PHSX 212 AND PHSX 236 or PHSX 214.
- Foundations of Chemistry I. Satisfied by CHEM 184 or CHEM 185.

Advanced Mathematics Core Knowledge and Skills. Majors must complete courses as indicated in the following areas:

- Vector Calculus. Satisfied by MATH 223.
- Elementary Linear Algebra. Satisfied by MATH 290.
• MATH Elective. Satisfied by PHSX 518, PHSX 718, MATH 526, MATH 530, MATH 558, MATH 581, MATH 590, MATH 628, MATH 646, MATH 647, MATH 648, MATH 660, MATH 661, or any 700-level MATH lecture course except MATH 701 and MATH 715.

Astronomy Core Knowledge and Skills. Majors must complete courses as indicated in the following areas:

• Physical Astronomy, Honors. Satisfied by ASTR 391.
• Stellar Astronomy. Satisfied by ASTR 591.
• Galactic & Extragalactic Astronomy. Satisfied by ASTR 592.
• Observational Astrophysics. Satisfied by ASTR 596.
• Gravitation and Cosmology. Satisfied by PHSX 693.
• Astrophysics I and II. Satisfied by ASTR 691 and ASTR 692.
• Undergraduate Research. Satisfied by ASTR 503.

Physics Core Knowledge and Skills. Majors must complete courses as indicated in the following areas:

• General Physics III. Satisfied by PHSX 313.
• Intermediate Physics Lab. Satisfied by PHSX 316.
• Introductory Quantum Mechanics. Satisfied by PHSX 511.
• Physical Measurements or Electronic Circuit Measurement and Design. Satisfied by PHSX 516 or 536.
• Mechanics I. Satisfied by PHSX 521.
• Electricity and Magnetism. Satisfied by PHSX 531.
• Thermal Physics. Satisfied by PHSX 671.
• Physics Elective. Satisfied by any PHSX lecture or laboratory course numbered 500 or higher including ASTR 795/PHSX 795 Space Plasma Physics and GEOL 572 Geophysics.

Requirements for the Minor in Astronomy

Astronomy Minor Course Requirements

Student selecting this minor must complete courses as specified in each of the following areas:

• General Physics I. Satisfied by PHSX 211 and PHSX 216 (or PHSX 213).
• General Physics II. Satisfied by PHSX 212 AND PHSX 236 (or PHSX 214).
• General Physics III and Intermediate Physics Laboratory. Satisfied by PHSX 313 and PHSX 316.
• Physical Astronomy, Honors. Satisfied by ASTR 391 (students ineligible to take ASTR 391 should take ASTR 390).

Astronomy Required Electives. Satisfied by at least 5 hours in any combination of ASTR courses numbered above 300.

CHANGES TO ATMOSPHERIC SCIENCE BS AND MINOR:

Requirements for the B.S. Degree in Atmospheric Science
Atmospheric Science Prerequisite or Co-requisite Knowledge. Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

- Computing and Programming. Satisfied by EECS 138 (Fortran preferred; C++ and Matlab accepted).
- Calculus I. Satisfied by MATH 121 or MATH 141 (or equivalent).
- Calculus II. Satisfied by MATH 122 or MATH 142 (or equivalent).
- General Physics I. Satisfied by PHSX 211 **AND** PHSX 216 or PHSX 213.
- General Physics II. Satisfied by PHSX 212 **AND** PHSX 236 or PHSX 214.
- Foundations of Chemistry I. Satisfied by CHEM 184 or CHEM 185.
- Vector Calculus. Satisfied by MATH 223 or MATH 243.
- Elementary Linear Algebra. Satisfied by MATH 290 or MATH 291
- Applied Differential Equation. Satisfied by MATH 320 or MATH 220.
- Statistics. Satisfied by MATH 526 or DSCI 301.

Atmospheric Science Core Knowledge and Skills. Majors must complete all of the following:

- Introductory Meteorology (5). Satisfied by ATMO 105
- Climate and Climate Change (3). Satisfied by ATMO 321/GEOG 321.
- Weather Forecasting (3). Satisfied by ATMO 505.
- Microclimatology (3). Satisfied by ATMO 521/GEOG 521.
- Synoptic Meteorology (3). Satisfied by ATMO 630.
- Dynamic Meteorology (3). Satisfied by ATMO 640.
- Remote Sensing (3). Satisfied by ATMO 642.
- Advanced Dynamic Meteorology (3). Satisfied by ATMO 660.
- Physical Meteorology (3). Satisfied by ATMO 680.
- Seminar for Seniors (1). Satisfied by ATMO 697.

Requirements for the Minor in Atmospheric Science

Student selecting this minor must complete courses as specified in each of the following areas:

Atmospheric Science Prerequisite or Co-requisite Knowledge

- Calculus I. Satisfied by MATH 121 or MATH 141 (or equivalent).
- Calculus II. Satisfied by MATH 122 or MATH 142 (or equivalent).
- General Physics I. Satisfied by PHSX 211 **AND** PHSX 216 or PHSX 213.

Atmospheric Science Minor Course Requirements

- Introductory Meteorology (5). Satisfied by ATMO 105.
- Climate and Climate Change (3). Satisfied by ATMO 321/GEOG 321.
- Weather Forecasting (3). Satisfied by ATMO 505.

Atmospheric Science Required Electives

Student selecting this minor must complete 3 courses (9 hours) of the following:
ATMO 521 Microclimatology
ATMO 525 Air Pollution Meteorology
ATMO 630 Synoptic Meteorology
ATMO 640 Dynamic Meteorology
ATMO 642 Remote Sensing
ATMO 680 Physical Meteorology

CHANGES TO BIOCHEMISTRY BA AND BS; BIOLOGY BA, BS; HUMAN BIOLOGY BA; MICROBIOLOGY BA, BS; MOLECULAR BIOSCIENCES BS:

Requirements for the B.A. Major in Biochemistry

Major Course Requirements

General Science Requirements. Satisfied by completing 35-41 hours.

- Foundations of Chemistry I. Satisfied by CHEM 184 or CHEM 185.
- Foundations of Chemistry II. Satisfied by CHEM 188 or CHEM 189.
- Organic Chemistry I. Satisfied by CHEM 622, CHEM 624, or CHEM 628.
- Organic Chemistry I Laboratory. Satisfied by CHEM 625.
- Organic Chemistry II. Satisfied by CHEM 626.
- Biological Physical Chemistry. Satisfied by CHEM 640.
- Calculus I and II. Satisfied by MATH 115 & MATH 116 or MATH 121 & MATH 122 (or equivalent). Additional Math courses required. Students who plan to attend graduate school should enroll in MATH 121 and 122.
- Physics. Satisfied by PHSX 211 AND PHSX 216; and PHSX 212 AND PHSX 236 or PHSX 114 and PHSX 115.

Biochemistry Requirements

- Principles of Molecular & Cellular Biology. Satisfied by BIOL 150 or BIOL 151.
- Principles of Organismal Biology. Satisfied by BIOL 152 or BIOL 153.
- Principles of Genetics. Satisfied by BIOL 350 or BIOL 360 (BIOL 404 prior to Spring 2005).
- Biochemistry I. Satisfied by BIOL 636.
- Introductory Biochemistry Laboratory. Satisfied by BIOL 637.
- Biochemistry II. Satisfied by BIOL 638.
- Advanced Biochemistry Laboratory. Satisfied by BIOL 639.
- Gene Expression. Satisfied by BIOL 672.
- Senior Seminar in Biochemistry. Satisfied by BIOL 599 (BIOL 420 prior to Fall 2005). Must be taken in senior year.

Biology Electives. Satisfied by completing at least 6 hours of biology courses numbered 400 or higher. These courses must be selected in consultation with a biochemistry adviser. Some suggested courses are: BIOL 400 (or BIOL 401, Honors), BIOL 408, BIOL 416, BIOL 417, BIOL 424, or BIOL 646. No more than 3 hours of BIOL 423 Non-Lab Independent Study and/or BIOL 424 Independent Study (combined) can be applied towards the elective requirement.
Requirements for the B.S. Degree in Biochemistry

General Science Requirements. Majors must complete the following general science requirements that serve as foundational courses for this major.

- Foundations of Chemistry I. Satisfied by CHEM 184 or CHEM 185.
- Foundations of Chemistry II. Satisfied by CHEM 188 or CHEM 189.
- Analytical Chemistry. Satisfied by CHEM 516.
- Organic Chemistry I. Satisfied by CHEM 624 or CHEM 628.
- Organic Chemistry I Laboratory. Satisfied by CHEM 625.
- Organic Chemistry II. Satisfied by CHEM 626 or CHEM 630.
- Organic Chemistry II Laboratory. Satisfied by CHEM 627.
- Physical Chemistry. Satisfied by CHEM 640 or CHEM 646
- Calculus I & II. Satisfied by MATH 121 and MATH 122 (or equivalent).
- Physics. Satisfied by PHSX 114 and PHSX 115 or PHSX 211 AND PHSX 216, and PHSX 212 AND PHSX 236.

Biochemistry Course Requirements. Satisfied by completing 25 hours from courses below.

- Principles of Molecular and Cellular Biology. Satisfied by BIOL 150 or BIOL 151.
- Principles of Organismal Biology. Satisfied by BIOL 152 or BIOL 153.
- Principles of Genetics. Satisfied by BIOL 350 or BIOL 360.
- Biochemistry I. Satisfied by BIOL 636.
- Introductory Biochemistry Laboratory. Satisfied by BIOL 637.
- Biochemistry II. Satisfied by BIOL 638.
- Advanced Biochemistry Laboratory. Satisfied by BIOL 639.
- Gene Expression. Satisfied by BIOL 672.
- Senior Seminar in Biochemistry. Satisfied by BIOL 599. Must be taken in senior year.

Biochemistry Required Electives. BIOL courses numbered 400 or higher must be selected in consultation with a Biochemistry adviser. Some suggested courses include BIOL 400/ BIOL 401,BIOL 408, BIOL 416, BIOL 424, BIOL 430, BIOL 518, BIOL 688, or BIOL courses having a biochemistry course as prerequisite. No more than 3 hours of BIOL 423 Non-Lab Independent Study and/or BIOL 424 Independent Study (combined) can be applied towards the elective requirement.

Requirements for the B.A. Major in Biology

Major Course Requirements

General Science Requirements (28-30 hours).

- Foundations of Chemistry I. Satisfied by CHEM 184 or CHEM 185
- Foundations of Chemistry II. Satisfied by CHEM 188 or CHEM 189.
- Organic Chemistry I. Satisfied by CHEM 622 or CHEM 624.
- Organic Chemistry I Laboratory. Satisfied by CHEM 625.
- Calculus I. Satisfied by MATH 115 and MATH 116, MATH 121, or MATH 141.
- College Physics or General Physics I. Satisfied by PHSX 114, PHSX 211 AND PHSX 216, or PHSX 213.
- College Physics or General Physics II. Satisfied by PHSX 115, PHSX 212 AND PHSX 236, or PHSX 214.
Biology Core Requirements (24-25 hours).

- Principles of Molecular & Cellular Biology. Satisfied by: BIOL 150 or BIOL 151.
- Principles of Organismal Biology. Satisfied by BIOL 152 or BIOL 153.
- Principles of Genetics. Satisfied by BIOL 350 or BIOL 360.
- Evolutionary Biology. Satisfied by BIOL 412.
- Senior Seminar in Biology. Satisfied by BIOL 599 (BIOL 420 prior to spring 2006). Must be taken in senior year.
- Diversity of Organisms / Principles of Ecology / Introduction to Systematics. Satisfied by 1 of the following: BIOL 413, BIOL 414, or BIOL 550.
- Fundamentals / Development / Function. Satisfied by 2 of the following: BIOL 400, BIOL 408, BIOL 416, BIOL 417, or BIOL 600.

Electives and Laboratory Requirements. Satisfied by completing 10 hours of BIOL courses numbered 400 or higher which include at least 4 hours of laboratory credit. Courses listed above which have not been used to fulfill the above requirements may be used as electives. No more than 3 hours of BIOL 423 Non-Lab Independent Study and/or BIOL 424 Independent Study (combined) can be applied towards the elective requirement with no more than 2 hours of BIOL 424 being applied towards the laboratory requirement.

- Biology Electives. Satisfied by completing at least 6 hours of non-laboratory biology courses numbered 400 or higher.
- Biology Laboratory. Satisfied by completing at least 4 hours of biology lab courses. No more than 2 hours of BIOL 424 being applied towards the laboratory requirement.

Requirements for the B.S. Degree in Biology

Biodiversity, Ecology, and Evolutionary Biology

General Science Requirements. Majors must complete the following 26-29 hours of general science requirements that serve as foundational courses for this major.

- Foundations of Chemistry I. Satisfied by CHEM 184 or CHEM 185.
- Foundations of Chemistry II. Satisfied by CHEM 188 or CHEM 189.
- Organic Chemistry I. Satisfied by CHEM 622, CHEM 624 or CHEM 628.
- Calculus I. Satisfied by taking MATH 115 and MATH 116, or MATH 121 or MATH 141.
- Physics I. Satisfied by PHSX 114, PHSX 211 AND PHSX 216, or PHSX 213.
- Physics II. Satisfied by PHSX 115, PHSX 212 AND PHSX 236, or PHSX 214.

General Biology Requirements. Satisfied by completing 17-18 hours from courses below. These additional science courses are included in the Ecology and Evolutionary Biology major hours and GPA calculations.

- Principles of Molecular & Cellular Biology. Satisfied by BIOL 150 or BIOL 151.
- Principles of Organismal Biology. Satisfied by BIOL 152 or BIOL 153.
- Principles of Genetics. Satisfied by BIOL 350 or BIOL 360.
- Choose 2 Courses. Satisfied by completing 2 of the following courses BIOL 408, BIOL 416, BIOL 417, or BIOL 600.
Ecology and Evolutionary Biology Course Requirements. Satisfied by completing 18 hours of course work below.

- Evolutionary Biology. Satisfied by BIOL 412.
- History & Diversity of Organisms. Satisfied by BIOL 413.
- Principles of Ecology. Satisfied by BIOL 414 or BIOL 514.
- Introduction to Biostatistics. Satisfied by BIOL 570.
- Senior Seminar in Ecology & Evolutionary Biology. Satisfied by BIOL 599 (must be taken in senior year).

Ecology & Evolutionary Biology Required Electives, Laboratory, and Seminar. Satisfied by completing 13 hours of BIOL courses numbered 400 or higher which include at least 3 hrs. of laboratory credit and 2 hrs. of a seminar or topics course (BIOL 419, 420, 499, 701). Courses listed above which have not been used to fulfill the above requirements may be used as electives. No more than 3 hrs. of BIOL 423 Non-Lab Independent Study and/or BIOL 424 Independent Study (combined) can be applied towards the elective requirement with no more than 2 hours of BIOL 424 being applied towards the laboratory requirement.

- Seminar. Satisfied by completing 2 hours of seminar or topics course (BIOL 419, BIOL 420, BIOL 499, or BIOL 701).
- Laboratory. Satisfied by completing 3 hours of laboratory courses. No more than 2 hours of BIOL 423/424 count toward lab requirement.
- Ecology and Evolutionary Biology Electives. Satisfied by completing 8 hours from BIOL courses numbered 400 or higher. No more than 3 hours of BIOL 423/424 allowed toward elective requirement.

Cellular Biology

General Science Requirements. Majors must complete the following 31-34 hours of general science requirements that serve as foundational courses for this major.

- Foundations of Chemistry I. Satisfied by CHEM 184 or CHEM 185.
- Foundations of Chemistry II. Satisfied by CHEM 188 or CHEM 189.
- Organic Chemistry I. Satisfied by CHEM 624 or CHEM 628.
- Organic Chemistry I Laboratory. Satisfied by CHEM 625.
- Organic Chemistry II. Satisfied by CHEM 626 or CHEM 630.
- Calculus I. Satisfied by taking MATH 115 and MATH 116, or MATH 121 or MATH 141.
- Physics I. Satisfied by PHSX 114, PHSX 211 AND PHSX 216, or PHSX 213.
- Physics II. Satisfied by PHSX 115, PHSX 212 AND PHSX 236, or PHSX 214.

General Biology Requirements. Satisfied by completing 21 hours from courses below. These additional science courses are included in the Cellular Biology major hours and GPA calculations.

- Principles of Molecular & Cellular Biology. Satisfied by BIOL 150 or BIOL 151.
- Principles of Organismal Biology. Satisfied by BIOL 152 or BIOL 153.
- Principles of Genetics. Satisfied by BIOL 350 or BIOL 360.
- Physiology of Organisms. Satisfied by BIOL 408.
- Evolutionary Biology. Satisfied by BIOL 412.
• Introductory Biochemistry. Satisfied by BIOL 600.

Cellular Biology Course Requirements. Satisfied by completing 19 hours of course work below.

• Cell Structure & Function. Satisfied by BIOL 416.
• Biology of Development. Satisfied by BIOL 417.
• Laboratory in Cell Biology. Satisfied by BIOL 426.
• Senior Seminar in Cell Biology. Satisfied by BIOL 599. Must be taken in senior year.

Cell Biology Electives. Satisfied by completing 9 hours from the following: BIOL 400, BIOL 402, BIOL 435, BIOL 503, BIOL 504, BIOL 512, BIOL 513, BIOL 570, BIOL 646, BIOL 673, BIOL 688, BIOL 719, BIOL 752, BIOL 755, BIOL 756

Seminar/Laboratory Requirements. At least 2 hours of laboratory credit (BIOL laboratories numbered 400 or higher) and 2 hours of a seminar/topics course (BIOL 419, 420, 499, 701).

• Seminar. Satisfied by BIOL 419, BIOL 420, BIOL 499, or BIOL 701
• Laboratory. Satisfied by completing 2 hours of lab course work.

Genetics

General Science Requirements. Majors must complete the following 28-31 hours of general science requirements that serve as foundational courses for this major.

*Students planning to enter graduate school (particularly those interested in applying molecular techniques) or medical school are advised to also enroll in CHEM 626/627.

• Foundations of Chemistry I. Satisfied by CHEM 184 or CHEM 185.
• Foundations of Chemistry II. Satisfied by CHEM 188 or CHEM 189.
• Organic Chemistry I. Satisfied by CHEM 622, CHEM 624 or CHEM 628.
• Organic Chemistry I Laboratory. Satisfied by CHEM 625.
• Calculus I. Satisfied by MATH 115 and MATH 116, or MATH 121 or MATH 141.
• Physics I. Satisfied by PHSX 114, PHSX 211 AND PHSX 216, or PHSX 213.
• Physics II. Satisfied by PHSX 115, PHSX 212 AND PHSX 236, or PHSX 214.

General Biology Requirements. Satisfied by completing 24 hours from courses below. These additional science courses are included in the Genetics major hours and GPA calculations.

• Principles of Molecular & Cellular Biology. Satisfied by BIOL 150 or BIOL 151.
• Principles of Organismal Biology. Satisfied by BIOL 152 or BIOL 153.
• Evolutionary Biology. Satisfied by BIOL 412.
• Cell Structure and Function. Satisfied by BIOL 416.
• Introduction to Biostatistics. Satisfied by BIOL 570.
• Introductory Biochemistry. Satisfied by BIOL 600.
• Choose 1 Course. Satisfied by BIOL 400, BIOL 408, or BIOL 417.

Genetics Course Requirements. Satisfied by completing 15 hours of the following:

- Laboratory in Genetics. Satisfied by BIOL 405.
- Gene Expression. Satisfied by BIOL 672.
- Senior Seminar in Genetics. Satisfied by BIOL 599. Must be taken in senior year.
- Choose 2 courses. Satisfied by choosing 2 from the following: BIOL 512, BIOL 518, BIOL 595, BIOL 611, BIOL 688, BIOL 743, BIOL 747, BIOL 755, ANTH 340, ANTH 442, ANTH 652.

Genetics Required Electives, Laboratory, and Seminar. Satisfied by completing 8 hours of BIOL courses numbered 400 or higher, including at least 3 hrs. of lab credit and 2 hrs. of a seminar/topics course (BIOL 419, 420, 499, 701). Courses listed above which have not been used to fulfill the above requirements may be used as electives. No more than 3 hrs. of BIOL 423 Non-Lab Independent Study and/or BIOL 424 Independent Study (combined) can be applied towards the elective requirement with no more than 2 hours of BIOL 424 being applied towards the laboratory requirement.

- Seminar. Satisfied by a minimum of 2 hours of seminar or topics course (BIOL 419, BIOL 420, BIOL 499, or BIOL 701)
- Laboratory. Satisfied by 1 or 2 laboratory courses (minimum of 3 hours) selected from the following: BIOL 424 (2 hours max.), BIOL 426, BIOL 430, BIOL 519, BIOL 601, BIOL 637, BIOL 756, and BIOL 759.
- Electives. Satisfied by choosing 5 additional hours in BIOL courses numbered 400 or higher.

Neurobiology

General Science Requirements. Majors must complete the following 31-34 hours of general science requirements that serve as foundational courses for this major.

- Foundations of Chemistry I. Satisfied by CHEM 184 or CHEM 185.
- Foundations of Chemistry II. Satisfied by CHEM 188 or CHEM 189.
- Organic Chemistry I. Satisfied by CHEM 624 or CHEM 628.
- Organic Chemistry I Laboratory. Satisfied by CHEM 625.
- Organic Chemistry II. Satisfied by CHEM 626 or CHEM 630.
- Calculus I. Satisfied by MATH 115 and MATH 116, or MATH 121 or MATH 141.
- Physics I. Satisfied by PHSX 114, PHSX 211 AND PHSX 216, or PHSX 213.
- Physics II. Satisfied by PHSX 115, PHSX 212 AND PHSX 236 or PHSX 214.

General Biology Requirements. Satisfied by completing 21-23 hours from courses below. These additional science courses are included in the Cellular Biology major hours and GPA calculations.

- Principles of Molecular & Cellular Biology. Satisfied by BIOL 150 or BIOL 151.
- Principles of Organismal Biology. Satisfied by BIOL 152 or BIOL 153.
- Evolutionary Biology. Satisfied by BIOL 412.
- Diversity of Organisms or Principles of Ecology. Satisfied by BIOL 413 or BIOL 414.
- Biochemistry. Satisfied by BIOL 600 or BIOL 636 & BIOL 638.

Neurobiology Course Requirements. Satisfied by completing 15-16 hours of course work below.

- Cell Structure and Function. Satisfied by BIOL 416 or BIOL 536.
• Biology Laboratory. Satisfied by BIOL 405, BIOL 426, or BIOL 427.
• Introduction to Neurobiology. Satisfied by BIOL 435.
• Advanced Neurobiology. Satisfied by BIOL 650.
• Senior Seminar in Neurobiology. Satisfied by BIOL 599. Must be taken in senior year.

**Neurobiology Required Electives.** Satisfied by completing 12 hours of course work below.

• Choose 3 courses. Satisfied by choosing 3 courses (9 hours) from the following: BIOL 454, BIOL 570, BIOL 646, BIOL 647, BIOL 652, BIOL 672, BIOL 673, BIOL 676, BIOL 755, BIOL 775, or BIOL 777.

**Additional Biology Electives.** Satisfied by choosing any BIOL course at the 400-level or above. No more than 3 hours of BIOL 423 Non-Lab Independent Study and/or BIOL 424 Independent Study (combined) can be applied towards the elective requirement.

**Organismal Biology**

**General Science Requirements.** Majors must complete the following 28-31 hours of general science requirements that serve as foundational courses for this major.

• Foundations of Chemistry I. Satisfied by CHEM 184 or CHEM 185.
• Foundations of Chemistry II. Satisfied by CHEM 188 or CHEM 189.
• Organic Chemistry I. Satisfied by CHEM 622, CHEM 624 or CHEM 628.
• Organic Chemistry I Laboratory. Satisfied by CHEM 625.
• Calculus I. Satisfied by MATH 115 and MATH 116, or MATH 121 or MATH 141.
• Physics I. Satisfied by PHSX 114, PHSX 211 AND PHSX 216, or PHSX 213.
• Physics II. Satisfied by PHSX 115, PHSX 212 AND PHSX 236, or PHSX 214.

**General Biology Requirements.** Satisfied by completing 18 hours from courses below. These additional science courses are included in the Organismal Biology major hours and GPA calculations.

• Principles of Molecular & Cellular Biology. Satisfied by BIOL 150 or BIOL 151.
• Principles of Organismal Biology. Satisfied by BIOL 152 or BIOL 153.
• Evolutionary Biology. Satisfied by BIOL 412.
• Introductory Biochemistry. Satisfied by BIOL 600.

**Organismal Biology Course Requirements.** Satisfied by completing 21 hours of course work below.

• Physiology of Organisms. Satisfied by BIOL 408.
• Physiology of Organisms Laboratory. Satisfied by BIOL 409.
• History/Diversity of Organisms. Satisfied by BIOL 413.
• Senior Seminar in Organismal Biology. Satisfied by BIOL 599. Must be taken in senior year.
• Choose 1 course. Satisfied by choosing 1 course from the following: BIOL 416, BIOL 414, or BIOL 550.

Students must take at least 1 course from each of the following three groups.

**Development & Morphology.** Satisfied by choosing 1 course from following: BIOL 417, BIOL 440, BIOL 510, BIOL 528, BIOL 708, or BIOL 545.
Function. Satisfied by choosing 1 course from following: BIOL 435, BIOL 503, BIOL 506, BIOL 526, BIOL 716, BIOL 606, BIOL 644, BIOL 646, BIOL 652, BIOL 667, BIOL 673.

Diversity. Satisfied by choosing 1 course from following: ANTH 440, BIOL 400, BIOL 401, BIOL 494, BIOL 500, BIOL 505, BIOL 509, BIOL 512, BIOL 521, BIOL 529, BIOL 709, BIOL 533, BIOL 540, BIOL 583, BIOL 783, BIOL 592, BIOL 792, BIOL 593, BIOL 603, BIOL 610, BIOL 613, BIOL 622, BIOL 640.

Genetics Required Electives, Laboratory, and Seminar. Satisfied by 10 hours of BIOL courses numbered 400 or higher, including at least 2 hrs. of lab credit and 1 hr. of a seminar/topics course (BIOL 419, 420, 499, 701). Courses listed above which have not been used to fulfill the above requirements may be used as electives. No more than 3 hrs. of BIOL 423 Non-Lab Independent Study and/or BIOL 424 Independent Study (combined) can be applied towards the elective requirement with no more than 2 hours of BIOL 424 being applied towards the laboratory requirement.

- Seminar. 1 hour of seminar: BIOL 419, BIOL 420, BIOL 499, or BIOL 701.
- Laboratory. 2 hours of laboratory courses. No more than 2 hours of BIOL 423/424 allowed toward Lab requirement.

Organismal Biology Electives. 7 hours required. No more than 3 hours of BIOL 423/424 allowed toward elective requirement.

Teaching Biology

General Science Requirements. Majors must complete the following 28-31 hours of general science requirements that serve as foundational courses for this major.

- Foundations of Chemistry I. Satisfied by CHEM 184 or CHEM 185.
- Foundations of Chemistry II. Satisfied by CHEM 188 or CHEM 189.
- Organic Chemistry I. Satisfied by CHEM 622, CHEM 624 or CHEM 628.
- Organic Chemistry I Laboratory. Satisfied by CHEM 625.
- Calculus I. Satisfied by MATH 115 and MATH 116, or MATH 121 or MATH 141.
- Physics I. Satisfied by PHSX 114, PHSX 211 AND PHSX 216, or PHSX 213.
- Physics II. Satisfied by PHSX 115, PHSX 212 AND PHSX 236, or PHSX 214.

Teaching Biology Course Requirements. Satisfied by completing 30-31 hours of course work below.

- Principles of Molecular & Cellular Biology. Satisfied by BIOL 150 or BIOL 151.
- Principles of Organismal Biology. Satisfied by BIOL 152 or BIOL 153.
- Principles of Genetics. Satisfied by BIOL 350 or BIOL 360.
- Evolutionary Biology. Satisfied by BIOL 412.
- Cell Structure & Function. Satisfied by BIOL 416 or BIOL 536.
- Research Methods. Satisfied by BIOL 598.
- Senior Seminar. Satisfied by BIOL 599 (must be taken in senior year).
- Choose 1 Course. Satisfied by BIOL 413 or BIOL 428.
- Choose 1 Course. Satisfied by BIOL 400, BIOL 401, BIOL 408, or BIOL 600.
Teaching Biology Required Electives and Laboratory. Satisfied by 7 hours of BIOL courses numbered 400 or higher which include at least 4 hours of laboratory credit. Courses listed above which have not been used to fulfill the above requirements may be used as electives. No more than 3 hours of BIOL 423 Non-Lab Independent Study and/or BIOL 424 Independent Study (combined) can be applied towards the elective requirement with no more than 2 hours of BIOL 424 being applied towards the laboratory requirement.

- Laboratory. Satisfied by completing 4 hours of biology laboratory courses. Some course limits apply, including no more than 2 hours of BIOL 423/424 allowed toward Lab requirement.
- Teaching Biology Elective. Satisfied by completing 3 hours of BIOL course work. BIOL courses numbered 400 or higher. No more than 3 hours of BIOL 423/424 allowed toward Elective requirement.

Teaching Biology Education Requirements. Students who are seeking classroom certification must complete the following requirements through the School of Education.

- Approaches to Teaching Science and Mathematics I. Satisfied by LA&S 290.
- Approaches to Teaching Science and Mathematics II. Satisfied by LA&S 291.
- Knowing and Learning in Mathematics & Science. Satisfied by C&T 360.
- Classroom Interactions in Mathematics and Science. Satisfied by C&T 366.
- Reading and Writing Across the Curriculum. Satisfied by C&T 448.
- Project-Based Instruction in Mathematics & Science. Satisfied by C&T 460.
- Student Teaching. Satisfied by C&T 500.
- Special Topics Seminar. Satisfied by C&T 598.

Requirements for the B.A. Major in Human Biology

General Science Requirements. Majors must complete the following 34 hours of general science requirements that serve as foundational courses for this major.

- Fundamentals of Physical Anthropology. Satisfied by ANTH 304.
- Principles of Molecular & Cellular Biology. Satisfied by BIOL 150 or BIOL 151.
- Principles of Organismal Biology. Satisfied by BIOL 152 or BIOL 153.
- Calculus. Satisfied by MATH 115 and MATH 116 or MATH 121 or MATH 141.
- Foundations of Chemistry I. Satisfied by CHEM 184 or CHEM 185.
- Foundations of Chemistry II. Satisfied by CHEM 188 or CHEM 189.
- College or General Physics I. Satisfied by PHSX 114 or PHSX 211 AND PHSX 216
- Statistics. Satisfied by BIOL 570, PSYC 210 or MATH 365 (PSYC 300 was renumbered to PSYC 210 and the honors version, PSYC 211 as of fall 2010) BIOL 570 is recommended for the Anthropology Concentration.

Biology

Biology Concentration

Majors must complete the following 32 hours. These additional science courses are included in the Human Biology-Anthropology major hours and GPA calculations.

- Organic Chemistry I. Satisfied by CHEM 622 or CHEM 624.
- Organic Chemistry I Laboratory. Satisfied by CHEM 625.
• College or General Physics II. Satisfied by PHSX 115 or PHSX 212 AND PHSX 236.
• Principles of Genetics. Satisfied by BIOL 350 or BIOL 360.
• Senior Seminar in Human Biology. Satisfied by BIOL 599 (must be taken in senior year).
• Biology Laboratory Electives. Course selections from the following categories must include at least 3 hours of laboratory credit, 400 or above.

Biology Concentration Categories

Satisfied by completing 2 of the following 4 categories listed below. (18-19 hours required) (Course selections must include at least 3 hours of laboratory credit, 400 level or above.)

Development and Genetics. Satisfied by BIOL 417 and 6 additional hours selected from the following:
ABSC/PSYC 535, ANTH 762, BIOL 405, BIOL 416, BIOL 595, BIOL 688, PSYC 333, PSYC 430, PSYC 531, SPLH 566.

• Biology of Development. Satisfied by BIOL 417.
• Development and Genetics. Satisfied by completing 6 hours from the following list of courses:
  ABSC/PSYC 535, ANTH 762, BIOL 405, BIOL 416, BIOL 595, BIOL 688, PSYC 333, PSYC 430, PSYC 531, SPLH 566.

Anatomy and Physiology. Satisfied by: BIOL 646 and completing six hours selected from the following courses:
ANTH 542, ANTH 648, BIOL 435, BIOL 440, BIOL 647, BIOL 600, BIOL 637, HSES 672, PSYC 370, PSYC 380, PSYC 475.

• Mammalian Physiology. Satisfied by BIOL 646.
• Anatomy & Physiology. Satisfied by completing 6 hours from the following list of courses: ANTH 542, ANTH 648, BIOL 435, BIOL 440, BIOL 647, BIOL 600, BIOL 637, HSES 672, PSYC 370, PSYC 380, PSYC 475.

Evolution, Ecology, and Adaptation. Satisfied by BIOL 412 and completing 6 hours selected from the following:
ANTH 340, ANTH 341, ANTH 350, ANTH 652, BIOL 410, BIOL 414, BIOL 668, PSYC 555.

• Evolutionary Biology. Satisfied by BIOL 412.
• Evolution, Ecology, and Adaptation. Satisfied by completing 6 hours selected from the following:
  ANTH 340, ANTH 341, ANTH 350, ANTH 652, BIOL 410, BIOL 414, BIOL 668, PSYC 555.

Human Disease. Satisfied by: BIOL 400 (or BIOL 401, Honors) and 6 hours selected from the following courses:
ANTH 450, BIOL 503, BIOL 506, BIOL 512, BIOL 518, BIOL 595, BIOL 616, BIOL 688.

• Fundamentals of Microbiology. Satisfied by BIOL 400 (or BIOL 401, Honors).
• Human Disease. Satisfied by completing 6 hours selected from the following: ANTH 450, BIOL 503, BIOL 506, BIOL 512, BIOL 518, BIOL 595, BIOL 616, BIOL 688.

Requirements for the B.A. Major in Microbiology

General Science Requirements

Microbiology General Science Requirements (34-36 Hours)
• Principles of Molecular & Cellular Biology. Satisfied by BIOL 150 or BIOL 151.
• Principles of Genetics. Satisfied by BIOL 350 or BIOL 360.
• Foundations of Chemistry I. Satisfied by CHEM 184 or CHEM 185.
• Foundations of Chemistry II. Satisfied by CHEM 188 or CHEM 189.
• Organic Chemistry I. Satisfied by CHEM 622 or CHEM 624.
• Organic Chemistry I Laboratory. Satisfied by CHEM 625.
• Calculus I. Satisfied by MATH 115 and MATH 116, MATH 121, or MATH 141.
• College Physics or General Physics I. Satisfied by PHSX 114, PHSX 211 AND PHSX 216, or PHSX 213.
• College Physics or General Physics II. Satisfied by PHSX 115, PHSX 212 AND PHSX 236, or PHSX 214.

Microbiology Core Knowledge & Skills (9-10 Hours)

• Fundamentals of Microbiology. Satisfied by BIOL 400 or BIOL 401.
• Fundamentals of Microbiology Laboratory. Satisfied by BIOL 402.
• Microbial Physiology or Introductory Biochemistry. Satisfied by BIOL 516 or BIOL 600.
• Senior Seminar: Current Progress in Microbiology. Satisfied by BIOL 599. Must be taken in senior year.

Microbiology Electives. Satisfied by completing 15 hours of microbiology courses, including 3 lab courses, selected from the following: BIOL 503, BIOL 504, BIOL 506, BIOL 507, BIOL 512, BIOL 513, BIOL 517, BIOL 518, or BIOL 519.

Microbiology Elective. Satisfied by completing 3 additional hours of biology courses numbered 400 or higher to be selected in consultation with a microbiology adviser.

Requirements for the B.S. Degree in Microbiology

Microbiology Course Requirements

General Science Requirements. Majors must complete 49-52 hours of the following general science requirements that serve as foundational courses for this major.

• Molecular & Cellular Biology. Satisfied by BIOL 150 or BIOL 151.
• Principles of Genetics. Satisfied by BIOL 350 or BIOL 360.
• Foundations of Chemistry I. Satisfied by CHEM 184 or CHEM 185.
• Foundations of Chemistry II. Satisfied by CHEM 188 or CHEM 189.
• Organic Chemistry I. Satisfied by CHEM 624 or CHEM 628.
• Organic Chemistry I Laboratory. Satisfied by CHEM 625.
• Organic Chemistry II. Satisfied by CHEM 626 or CHEM 630.
• Organic Chemistry II Laboratory. Satisfied by CHEM 627.
• Physics. Satisfied by PHSX 114 & PHSX 115 or PHSX 211 AND PHSX 216; and PHSX 212 AND PHSX 236.
• Calculus. Satisfied by MATH 115 & MATH 116 or MATH 121.
• Statistics. Satisfied by BIOL 570 or MATH 365 or PSYC 210.
• Biochemistry I. Satisfied by BIOL 636.
• Biochemistry II. Satisfied by BIOL 638.

Microbiology Course Requirements. Satisfied by completing 29 hours from the following courses:
- Fundamentals of Microbiology. Satisfied by BIOL 400 or BIOL 401.
- Fundamentals of Microbiology Laboratory. Satisfied by BIOL 402 or BIOL 403.
- Immunology. Satisfied by BIOL 503.
- Immunology Laboratory. Satisfied by BIOL 504.
- Pathogenic Microbiology. Satisfied by BIOL 506.
- Pathogenic Microbiology Laboratory. Satisfied by BIOL 507.
- General Virology. Satisfied by BIOL 512.
- Virology Laboratory. Satisfied by BIOL 513.
- Microbial Genetics. Satisfied by BIOL 518.
- Microbial Genetics Laboratory. Satisfied by BIOL 519.
- Senior Seminar - Current Progress in Microbiology. Satisfied by BIOL 609/BIOL 599 Must be taken in senior year.

**Microbiology Required Electives.** Biology courses numbered 400 or higher to be selected in consultation with a microbiology adviser.

**Requirements for the B.S. Degree in Molecular Biosciences**

**General Science Requirements.** Majors must complete the following general science requirements that serve as foundational courses for this major.

- Foundations of Chemistry I. Satisfied by CHEM 184 or CHEM 185
- Foundations of Chemistry II. Satisfied by CHEM 188 or CHEM 189
- Organic Chemistry I. Satisfied by CHEM 624 or CHEM 628
- Organic Chemistry I Laboratory. Satisfied by CHEM 625.
- Organic Chemistry II. Satisfied by CHEM 626 or CHEM 630.
- Organic Chemistry II Laboratory. Satisfied by CHEM 627.
- Calculus. Satisfied by MATH 115 and MATH 116 or MATH 121.
- Statistics. Satisfied by BIOL 570, MATH 365, or PSYC 210.
- Physics. Satisfied by PHSX 114 and PHSX 115 or PHSX 211 AND PHSX 216; and PHSX 212 AND PHSX 236.

**Molecular Biosciences Course Requirements.** Satisfied by completing 29 hours from courses below.

- Molecular & Cellular Biology. Satisfied by BIOL 150 or BIOL 151.
- Principles of Organismal Biology. Satisfied by BIOL 152 or BIOL 153.
- Principles of Genetics. Satisfied by BIOL 350 or BIOL 360.
- Fundamentals of Microbiology. Satisfied by BIOL 400
- Fundamentals of Microbiology Laboratory. Satisfied by BIOL 402.
- Laboratory in Genetics. Satisfied by BIOL 405
- Cell Structure & Function. Satisfied by BIOL 416
- Molecular Biology Laboratory. Satisfied by BIOL 430
- Introductory Biochemistry. Satisfied by BIOL 600.

**Senior Seminar in Molecular Biosciences.** Satisfied by BIOL 599. Must be taken in senior year. Offered only at the Edwards Campus.

**Molecular Bioscience Required Electives.** (11 Required). BIOL courses numbered 400 or higher, including at least 2 hrs. of lab credit and 2 hrs. of a seminar/topics course (BIOL 419, 420, 701). No more than 3 hrs. of BIOL 423
Non-Lab Independent Study and/or BIOL 424 Independent Study (combined) can be applied towards the elective requirement with no more than 2 hours of BIOL 424 being applied towards the laboratory requirement.

**CHANGES TO CHEMISTRY BA, BS AND MINOR:**

**Requirements for the B.A. Major**

**Chemistry Courses** 29 hours
- CHEM 184 (or CHEM 185) Foundations of Chemistry I (5)
- CHEM 188 (or CHEM 189) Foundations of Chemistry II (5)
- CHEM 295 Seminar I (0.5)
- CHEM 622 Fundamentals of Organic Chemistry (3) or CHEM 624 (or CHEM 628) Organic Chemistry I (3)
- CHEM 625 Organic Chemistry I Laboratory (2)
- CHEM 516 Analytical Chemistry (3)
- CHEM 517 Analytical Chemistry Laboratory (2)
- CHEM 640 Biological Physical Chemistry (3) and CHEM 641 Biological Physical Chemistry Laboratory (2) or CHEM 646 Physical Chemistry I (3) and CHEM 647 Physical Chemistry I Laboratory (2)
- CHEM 695 Seminar II (0.5)
- Additional chemistry course (3)

**Mathematics and Physics** 14-20 hours
- MATH 115 Calculus I (3) or MATH 121 Calculus I (5)
- MATH 116 Calculus I (3) or MATH 122 Calculus II (5)
- PHSX 114 College Physics I (4) or PHSX 211 AND PHSX 216 General Physics I AND GENERAL PHYSICS I LAB (5)
- PHSX 115 College Physics II (4) or PHSX 212 AND PHSX 236 General Physics II AND GENERAL PHYSICS II LAB (5)

Courses that fulfill the additional 3 hours for the major are CHEM 626 (or CHEM 630) Organic Chemistry II, CHEM 635 and CHEM 636 Instrumental Methods of Analysis and Laboratory, CHEM 648 Physical Chemistry II, or CHEM 667 Systematic Inorganic Chemistry. Note that CHEM 648 has CHEM 646, MATH 223, and MATH 290 as prerequisites. Students in premedical programs should be aware that a year of organic chemistry lecture and laboratory (CHEM 624 or CHEM 628, CHEM 625, CHEM 626 or CHEM 630, and CHEM 627) is required for admission to virtually all medical schools. Students who need only 1 semester of organic chemistry should substitute CHEM 622 (the 1-semester organic chemistry lecture course) for CHEM 624, when possible.

**Requirements for the B.S. Degree**
**Chemistry Prerequisite or Co-requisite Knowledge.** Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

- Calculus I and II. Satisfied by MATH 121 and MATH 122.
- Differential Equations. Satisfied by MATH 220 or 320.
- Elementary Linear Algebra. Satisfied by MATH 290.
- General or College Physics I. Satisfied by PHSX 211 AND PHSX 216, or PHSX 213.
- General or College Physics II. Satisfied by PHSX 212 AND PHSX 236, or PHSX 214.
- Biochemistry. Satisfied by BIOL 600 or 636.

**Chemistry Core Knowledge and Skills**

Majors must complete courses as indicated in the following areas:

- Foundations of Chemistry I. Satisfied by CHEM 184 or CHEM 185.
- Foundations of Chemistry II. Satisfied by CHEM 188 or CHEM 189.
- Seminar I. Satisfied by CHEM 295.
- Analytical Chemistry (Lecture and Lab). Satisfied by CHEM 516 and 517.
- Organic Chemistry I (Lecture and Lab). Satisfied by CHEM 624 (CHEM 628) and CHEM 625.
- Organic Chemistry II (Lecture and Lab). Satisfied by CHEM 626 and CHEM 627.
- Instrumental Methods of Analysis (Lecture and Lab). Satisfied by CHEM 635 and CHEM 636.
- Physical Chemistry I and II (Lecture and Lab). Satisfied by CHEM 646 and CHEM 647.
- Physical Chemistry II (Lecture and Lab). Satisfied by CHEM 648 and CHEM 649.
- Systematic Inorganic Chemistry. Satisfied by CHEM 667.
- Seminar II. Satisfied by CHEM 695.

**Requirements for the Minor**

**Chemistry Minor Course Requirements**

Students selecting this minor must complete the following:

- Calculus I. Satisfied by: MATH 115, MATH 121, or MATH 141 (or equivalent).
- Calculus II. Satisfied by: MATH 116, MATH 122, or MATH 142 (or equivalent).
- General or College Physics I. Satisfied by: PHSX 114, PHSX 211 AND PHSX 216, or PHSX 213.
- General or College Physics II. Satisfied by: PHSX 115, PHSX 212 AND PHSX 236, or PHSX 214.
- Foundations of Chemistry I. Satisfied by: CHEM 184 or CHEM 185.
- Foundations of Chemistry II. Satisfied by: CHEM 188 or CHEM 189.
- Organic Chemistry I. Satisfied by: CHEM 622, CHEM 624 or CHEM 628.

**Chemistry Required Elective Group I**

Student selecting this minor must complete one of the following:

- Analytical Chemistry. Satisfied by: CHEM 516 and CHEM 517 (fall only).
- Biological Chemistry. Satisfied by: CHEM 640 or CHEM 641.
• Physical Chemistry. Satisfied by: CHEM 646 or CHEM 647.

Chemistry Required Elective Group II

Student selecting this minor must complete one of the following:

• Biological Chemistry. Satisfied by: CHEM 640.
• Physical Chemistry. Satisfied by: CHEM 646.
• Systematic Inorganic Chemistry. Satisfied by: CHEM 667 (spring only).

CHANGES TO GEOGRAPHY BS:

Requirements for the B.S. Degree

B.S. General Education Requirements

Physical Geography Option

Geology Prerequisite or Co-requisite Knowledge

• Calculus I. Satisfied by MATH 121 (recommended) or MATH 115
• Calculus II. Satisfied by MATH 122 (recommended) or MATH 116
• Physics. Satisfied by PHSX 211 AND PHSX 216; and PHSX 212 AND PHSX 236 (recommended) or PHYS 114 and PHSX 115
• Biology. Satisfied by BIOL 150 and BIOL 152
• Chemistry. Satisfied by CHEM 184 and CHEM 188
• Information Technology. Satisfied by EECS 128

Geography Core Knowledge and Skills

• Principles of Physical Geography. Satisfied by GEOG 104
• Introductory Laboratory in Physical Geography. Satisfied by GEOG 105
• World Regional Geography or Principles of Human Geography. Satisfied by GEOG 100 or GEOG 102

Geography Foundation Courses

• Physical. Choose 3 of the following:
  GEOG 304 Environmental Conservation
  GEOG 321 Climate and Climate Change
  GEOG 331 Regional Geomorphology of the United States
  GEOG 338 Introduction to River Systems
  GEOG 335 Introduction to Soil Geography or
  GEOG 535 Soil Geography

Techniques

Methods of Analyzing Geographical Data. Satisfied by GEOG 316
Principles of Geographic Information Systems. Satisfied by GEOG 358
Remote Sensing of Environment I. Satisfied by GEOG 526
• **Field Experience.** Choose 1 of the following:

- **EVRN 460** Field Ecology
- **GEOG 433** Biogeography Field and Laboratory Techniques
- **GEOG 714** Field Experience

**Senior Capstone in Geography.** Satisfied by GEOG 500 or GEOG 714.

**Geography Required Electives**

- 6 additional hours from the physical geography course list (300 level or above).
- 6 additional hours of geography (any group, 300 level or above).
- 6 additional hours in an allied field (e.g., ATMO, BIOL, EVRN, or GEOL) approved by geography adviser.

**CHANGES TO GEOLOGY BA and BS:**

**Requirements for the B.A. Major**

**Geology Major Course Requirements**

**Geology Prerequisite or Co-requisite Knowledge.** Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

- Calculus I. Satisfied by MATH 115 or MATH 121 (or equivalent).
- Foundations of Chemistry I. Satisfied by CHEM 184, or CHEM 125.
- Physics. Satisfied by PHSX 111, or PHSX 114 or PHSX 211 **AND** PHSX 216.
- Biology. Satisfied by BIOL 100 and BIOL 102 (or higher level biology course).
- Information Technology. Satisfied by EECS 128 or EECS 138.

**Geology Core Knowledge and Skills.** Majors must complete the following core courses:

- Introduction to Geology. Satisfied by GEOL 101.
- Geology Fundamentals Laboratory. Satisfied by GEOL 103.
- Mineralogy and Structure of the Earth. Satisfied by GEOL 311
- Sedimentology and Surface Processes. Satisfied by GEOL 331.
- Field Investigation. Satisfied by GEOL 360.
- Paleontology. Satisfied by GEOL 521.
- Introductory Field Geology. Satisfied by GEOL 560.
- Structural Geology. Satisfied by GEOL 562.

**Geology Required Electives.** Majors must complete a minimum of 15 hours in geology or related courses. Several possible tracks of upper-level course work are given below.

**General Geology Options:** Concentrate on traditional geology with emphasis on the solid earth and the earth’s interior, earth surface processes, or environmental geology and natural resources.

- Solid Earth. Select GEOL 312, GEOL 512, GEOL 513, GEOL 532, GEOL 572, GEOL 573.
- Surface Earth. Select GEOL 171, GEOL 351, GEOL 532, GEOL 541, GEOL 722.
• Geology and Natural Resources. Select GEOL 351, GEOL 391, GEOL 541, GEOL 572, EVRN 332 (Prerequisite: EVRN 148).

**Environmental Geology Options:** Concentrate on environmental geology with emphasis on water and the environment or urban environmental geology.

• Urban Environmental Geology. Select GEOL 351, ATMO 525, CE 477, GEOG 304.
• Other Elective Courses. Select GEOL 532, ATMO 105, BIOL 414, BIOL 460, GEOG 558.

**Requirements for the B.S. Degree**

**General Geology Option**

**Geology Prerequisite or Co-requisite Knowledge.** Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

• Calculus I. Satisfied by MATH 121 (MATH 121 Prerequisite: MATH 104; or MATH 103; or 3 years of college preparatory mathematics including trigonometry and a score of 28 or higher on ACT mathematics or 640 or higher on the SAT; or a qualifying score on the mathematics placement test. Students may complete MATH 115 and 116 prior to completing MATH 122).
• Calculus II. Satisfied by MATH 122.
• Chemistry. Satisfied by CHEM 184 and CHEM 188.
• Physics. Satisfied by PHSX 211 AND PHSX 216; and PHSX 212 AND PHSX 236.
• Biology. Satisfied by BIOL 150 and BIOL 152.
• Information Technology. Satisfied by EECS 128, EECS 138, or C&PE 212.

**Geology Core Knowledge and Skills.** Majors must complete the following core courses:

• Introduction to Geology. Satisfied by GEOL 101.
• Geology Fundamentals Laboratory. Satisfied by GEOL 103.
• Mineralogy and Structure of the Earth. Satisfied by GEOL 311.
• Mineral Structures and Equilibria Laboratory. Satisfied by GEOL 312.
• Sedimentology and Surface Processes. Satisfied by GEOL 331.
• Field Investigation. Satisfied by GEOL 360.
• Igneous and Metamorphic Petrology. Satisfied by GEOL 512.
• Petrology Laboratory. Satisfied by GEOL 513.
• Paleontology. Satisfied by GEOL 521.
• Paleontology Laboratory. Satisfied by GEOL 523.
• Stratigraphy. Satisfied by GEOL 532.
• Introductory Field Geology. Satisfied by GEOL 560.
• Field Geology. Satisfied by GEOL 561.
• Structural Geology. Satisfied by GEOL 562.
• Geophysics or Geodynamics and Plate Tectonics. Satisfied by GEOL 572 or GEOL 573.

**Geology Required Electives.** Majors must complete additional courses to total at least 9 hours numbered 500 or above.

**Engineering Geology Option**
Geology Prerequisite or Co-requisite Knowledge. Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

- Mathematics. Satisfied by MATH 121, MATH 122, MATH 220, and MATH 290 (MATH 121 Prerequisite: MATH 104; or MATH 103; or 3 years of college preparatory mathematics including trigonometry and a score of 28 or higher on ACT mathematics or 640 or higher on the SAT; or a qualifying score on the mathematics placement test).
- Chemistry. Satisfied by CHEM 184 and CHEM 188.
- Physics. Satisfied by PHSX 211 AND PHSX 216; and PHSX 212 AND PHSX 236.
- Biology. Satisfied by BIOL 150 and BIOL 152.
- Information Technology. Satisfied by EECS 128, EECS 138, or C&PE 121.
- Statics. Satisfied by CE 201.
- Dynamics. Satisfied by CE 300.
- Hydrology. Satisfied by CE 455.

Geology Core Knowledge and Skills. Majors must complete the following core courses:

- Introduction to Geology. Satisfied by GEOL 101 and GEOL 103, or GEOL 105.
- Mineralogy and Structure of the Earth. Satisfied by GEOL 311.
- Mineral Structures and Equilibria Laboratory. Satisfied by GEOL 312.
- Sedimentology and Surface Processes. Satisfied by GEOL 331.
- Environmental Geology. Satisfied by GEOL 351.
- Field Investigation. Satisfied by GEOL 360.
- Igneous and Metamorphic Petrology. Satisfied by GEOL 512.
- Petrology Laboratory. Satisfied by GEOL 513.
- Geomorphology. Satisfied by GEOL 541.
- Introductory Field Geology. Satisfied by GEOL 560.
- Field Geology. Satisfied by GEOL 561.
- Structural Geology. Satisfied by GEOL 562.
- Geophysics or Geodynamics and Plate Tectonics. Satisfied by GEOL 572 or GEOL 573.

Geology or Civil Engineering Required Electives. Majors must complete 3 additional geology or civil engineering courses, at least 2 of which must be from the following: GEOL 521, GEOL 532, GEOL 535, GEOL 715, GEOL 751, CE 770 and CE 771.

Electives may include an upper-division course in statistics (MATH 365 or BIOL 570).

Environmental Geology Option

Geology Prerequisite or Co-requisite Knowledge. Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.
Calculus I. Satisfied by MATH 121 (MATH 121 Prerequisite: MATH 104; or MATH 103; or three years of college preparatory mathematics including trigonometry and a score of 28 or higher on ACT mathematics or 640 or higher on the SAT; or a qualifying score on the mathematics placement test. Students may complete MATH 115 and 116 prior to completing MATH 122).

Calculus II. Satisfied by MATH 122.

Chemistry. Satisfied by CHEM 184 and CHEM 188.

Physics. Satisfied by PHSX 211 AND PHSX 216; and PHSX 212 AND PHSX 236 (recommended) or PHYS 114 and PHSX 115.

Biology. Satisfied by BIOL 150 and BIOL 152.

Information Technology. Satisfied by EECS 128, EECS 138, or C&PE 212.

Geology Core Knowledge and Skills. Majors must complete the following core courses:

- Introduction to Geology. Satisfied by GEOL 101.
- Geology Fundamentals Laboratory. Satisfied by GEOL 103.
- Mineralogy and Structure of the Earth. Satisfied by GEOL 311.
- Sedimentology and Surface Processes. Satisfied by GEOL 331.
- Environmental Geology. Satisfied by GEOL 351.
- Field Investigation. Satisfied by GEOL 360.
- Paleontology. Satisfied by GEOL 521.
- Stratigraphy. Satisfied by GEOL 532.
- Geomorphology. Satisfied by GEOL 541.
- Introduction to Hydrogeology. Satisfied by GEOL 552.
- Introductory Field Geology. Satisfied by GEOL 560.
- Structural Geology. Satisfied by GEOL 562.
- Geophysics. Satisfied by GEOL 572.

Geology Required Electives. Majors must complete additional courses to total at least 9 hours numbered 500 or above. The following are recommended: GEOL 391, GEOL 535, GEOL 715, GEOL 751, CE 770 and CE 771, GEOG 535, GEOG 558, GEOL 753, BIOL 400 or C&PE 517.

Geophysics Option

Geology Prerequisite or Co-requisite Knowledge. Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

- Calculus I. Satisfied by MATH 121 (MATH 121 Prerequisite: MATH 104; or MATH 103; or three years of college preparatory mathematics including trigonometry and a score of 28 or higher on ACT mathematics or 640 or higher on the SAT; or a qualifying score on the mathematics placement test. Students may complete MATH 115 and 116 prior to completing MATH 122).
- Calculus II. Satisfied by MATH 122.
- Vector Calculus and Elementary Linear Algebra. Satisfied by MATH 223 and MATH 290.
- Chemistry. Satisfied by CHEM 184 and CHEM 188.
- Physics. Satisfied by PHSX 211 AND PHSX 216; and PHSX 212 AND PHSX 236; PHSX 313; PHSX 521; PHSX 531.
- Information Technology. Satisfied by EECS 128 or demonstrate equivalent programming skills.

Geology Core Knowledge and Skills. Majors must complete the following core courses:
• Introduction to Geology. Satisfied by GEOL 101.
• Geology Fundamentals Laboratory. Satisfied by GEOL 103.
• Mineralogy and Structure of the Earth. Satisfied by GEOL 311.
• Sedimentology and Surface Processes. Satisfied by GEOL 331.
• Field Investigation. Satisfied by GEOL 360.
• Igneous and Metamorphic Petrology. Satisfied by GEOL 512.
• Introductory Field Geology. Satisfied by GEOL 560.
• Structural Geology. Satisfied by GEOL 562.
• Geophysics. Satisfied by GEOL 572 or GEOL 573.

**Additional Geology Courses.** Satisfied by completion of 2 of the following: GEOL 572, GEOL 573, GEOL 575, GEOL 577.

**Technical Required Electives.** Majors must complete additional courses to total at least 9 hours numbered 500 or above in geology, physics, mathematics, chemistry, engineering, or computer science. The following are recommended: GEOL 391, GEOL 535, GEOL 715, GEOL 751, CE 770 and CE 771, GEOG 535, GEOG 558, GEOL 753, BIOL 400 or C&PE 517.

**Earth and Space Science Licensure Option**

**Geology Prerequisite or Co-requisite Knowledge.** Majors must complete courses as specified in each of the following areas. Majors are advised to take honors courses when eligible. These hours do not contribute to the minimum number of hours required for the major.

• Calculus I. Satisfied by MATH 121 (MATH 121 Prerequisite: MATH 104; or MATH 103; or three years of college preparatory mathematics including trigonometry and a score of 28 or higher on ACT mathematics or 640 or higher on the SAT; or a qualifying score on the mathematics placement test. Students may complete MATH 115 and 116 prior to completing MATH 122).
• Calculus II. Satisfied by MATH 122.
• Chemistry. Satisfied by CHEM 184 (CHEM 185) and CHEM 188 (CHEM 189).
• Physics. Satisfied by PHSX 211 AND PHSX 216; and PHSX 212 AND PHSX 236.
• Biology. Satisfied by BIOL 150 (BIOL 151) and BIOL 152 (BIOL 153).

**Geology Core Knowledge and Skills.** Majors must complete the following core courses:

• Introduction to Geology. Satisfied by GEOL 101.
• Geology Fundamentals Laboratory. Satisfied by GEOL 103.
• Mineralogy and Structure of the Earth. Satisfied by GEOL 311.
• Sedimentology and Surface Processes. Satisfied by GEOL 331.
• Field Investigation. Satisfied by GEOL 360.
• Paleontology. Satisfied by GEOL 521 and GEOL 523.
• Stratigraphy. Satisfied by GEOL 532.
• Introduction to Hydrogeology. Satisfied by GEOL 552.
• Introductory Field Geology. Satisfied by GEOL 560.
• Structural Geology. Satisfied by GEOL 562.

**Space Science Core Knowledge and Skills.** Majors must complete the following core courses:

• Introductory Meteorology. Satisfied by ATMO 105.
• Contemporary Astronomy. Satisfied by ASTR 191.
• Introductory Astronomy Laboratory. Satisfied by **ASTR 196**.

**Earth and Space Required Electives.** Majors must complete one of the areas below:

- Geology Focus. Satisfied by 4 hours in a geology course numbered 300 or above.
- Astronomy Focus. Satisfied by 4 hours in astronomy courses numbered 300 or above. This can include 3 hours of **ASTR 390** or **GEOL 399, GEOL 105, GEOL 304**, or **GEOL 121** also can count if taken before the completion of 60 hours.

**Research Methods.** Satisfied by **CHEM 598**.

**Professional Development Course Work.** A minimum grade of C is required in all courses.

- Liberal Arts and Sciences. Satisfied by **LA&S 290** and **LA&S 291**
- Curriculum and Teaching (19 hours). Satisfied by **C&T 448 Reading and Writing across the Curriculum and 16 hours of courses approved by UKanTeach in curriculum and teaching. These should include courses such as Classroom Interactions (3), Knowing and Learning (3), Project Based Instruction (3), Student Teaching (6), and Special Topics Seminar (1).**