I. APPROVAL OF THE JANUARY 20, 2015 CAC MINUTES

II. REPORT OF THE COMMITTEE ON GRADUATE STUDIES (CGS)
   January 22, 2015 CGS Report
   Submitted by Cindy Lynn; presented by Alesia Woszidlo, 2014-2015 CGS Chair

   - Items pending CAC review were previously submitted in the January 20, 2015, CGS monthly report.
   - The January 22, 2015 meeting of CGS was cancelled. February 5, 2015, is the next scheduled meeting of the Committee on Graduate Studies.

III. REPORT OF THE COMMITTEE ON UNDERGRADUATE STUDIES AND ADVISING (CUSA)
   January 27, 2015 CUSA Report
   Submitted by Lanis Atwood; presented by Ruth Ann Atchley, 2014-2015 CUSA Chair

   A. Curricular Changes for Approval

      NEW COURSES:  EALC 328, FARS 593, GIST 697, HIST 493, LA&S 494, PCS 150, PCS 350
      CHANGES:  CHEM 150, CHEM 530, HWC 151/251, PCS 121/221, SPLH 668/568, SPLH 671/571

   B. Degree Requirements for Approval

      1. Changes to Existing Major to BA/BGS – Speech-Language-Hearing
      2. Changes to Existing Major to BA East Asian Languages & Cultures
      3. Changes to Existing Major to BA Geology
      4. NEW Major to BA Jewish Studies

      Degree requirement changes #5-11 are specifically related to the change in Calculus course sequence

      5. Changes to Existing Major to BS Behavioral Neuroscience
      6. Changes to Existing Major to BA Chemistry
      7. Changes to Existing BA Math
      8. Changes to Existing Major BS Chemistry
      9. Changes to Existing Major to BS Math
     10. Changes to Existing Minor to Chemistry
     11. Changes to Existing Minor Math

   C. Double Degree Proposal (See Attachment 1)

Next meeting of the CAC will be Tuesday, March 10, at 4:00 PM in 210 Strong Hall

College of Liberal Arts & Sciences
College Academic Council
Minutes – January 20, 2015

Committee members in attendance:  Mohamed El-Hodiri, Adrian Finucane, Jane Gibson, Dan Katz, Yoonmi Nam, Anna Neill
Committee members absent: Giselle Anatol, Heather Desaire, Steve Ilardi
Others in attendance: Ruth Ann Atchley, Mark Jakubauskas, Kristine Latta, Cindy Lynn, Jim Mielke, Susan Rufledt, Anne Sawyer, Alesia Woszidlo

The meeting was called to order by Associate Dean Jim Mielke at 4:00 PM.
Minutes
A motion was made and seconded to approve the December 9, 2014 minutes of the College Academic Council as written. The motion was approved unanimously.

Report of the Committee on Graduate Studies (CGS)
(Alesia Woszidlo, 2014-2015 CGS Chair, reporting)
- The motion (CGS report by Alesia Woszidlo) was seconded, and the CAC voted unanimously to approve the following course changes:
  NEW COURSES: BINF 703, BINF 704, PSYC 984, PSYC 988
- The motion (CGS report by Alesia Woszidlo) was seconded, and the CAC voted unanimously to approve the following degree requirements:
  Changes to Existing Degree – Physics, MS
- The motion (CGS report by Alesia Woszidlo) was seconded, and the CAC voted 5-yes, 1-no to approve the following degree requirements:
  New Track – Professional Science Masters-Environmental Assessment (PSM-EA 4+1)

Report of the Committee on Undergraduate Studies & Advising (CUSA)
(Ruth Ann Atchley, 2014-2015 CUSA Chair, reporting)
- The motion (CGS report by Ruth Ann Atchley) was seconded, and the CAC voted unanimously to approve the following course changes:
  NEW COURSES: COMS 608, GERM 130, HNDI 593
  NEW COURSES: MATH 125, MATH 126, MATH 127, MATH 145, MATH 146, MATH 147
- The motion (CGS report by Ruth Ann Atchley) was seconded, and the CAC voted unanimously to approve the following course changes:
  CHANGES: ASTR 391, MATH 220, MATH 221, MATH 290, MATH 291, MATH 320, MATH 409, MATH 410, MATH 470, MATH 500, MATH 526, MATH 530, MATH 540, MATH 542, MATH 558, MATH 559, MATH 590, MATH 591, MATH 601, MATH 605, MATH 624, MATH 627, MATH 646, MATH 647, MATH 648, MATH 650, MATH 660, PHSX 201, PHSX 210, PHSX 211, PHSX 212, PHSX 213, PHSX 214, PHSX 521, PHSX 528, PHSX 531, PHSX 536, PHSX 623
- The motion (CGS report by Ruth Ann Atchley) was seconded, and the CAC voted unanimously to approve the following course changes:
  CHANGES: BIOL 545, BIOL 600, HIST 568, LA&S 150, SPLH 662/462, SPLH 663/463
- The motion (CGS report by Ruth Ann Atchley) was seconded, and the CAC voted unanimously to approve the following course deletion:
  DELETION: BIOL 427
- The motion (CGS report by Ruth Ann Atchley) was seconded, and the CAC voted unanimously to approve the following degree requirements:
  Changes to Existing Majors:
  1. BA/BGS AND Minor – Speech-Language-Hearing
  2. BA Biology
  3. BA Human Biology
  4. BA Microbiology
  5. BS Biology (all subplans)
  6. BS Molecular Biosciences
  7. BAS Biotechnology
  8. BA/BGS Linguistics

Degree requirement changes #9-19 are specifically related to the change in Calculus course sequence
- The motion (CGS report by Ruth Ann Atchley) was seconded, and the CAC voted unanimously to approve the following degree requirements:
  Changes to Existing Majors:
  9. BA Astronomy and BS Astronomy
  10. BA Biology
  11. BS Biology – EEOB and MCDB and Teaching Biology
  12. BA Biochemistry and BS Biochemistry
  13. BA Microbiology and BS Microbiology
  14. BA Human Biology (w/edit noted in red on p. 37 of corrected CAC agenda)
  15. BS Molecular Biosciences
  16. BAS – Biotechnology
  17. BA Physics and BS Physics
A motion was made and seconded, and the CAC voted **unanimously** to adjourn at 4:50 PM.

*Next regularly scheduled meeting of the CAC will be Tuesday, February 10, at 4:00 PM in 210 Strong Hall.*

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**II. REPORT OF THE COMMITTEE ON GRADUATE STUDIES (CGS)**

No action items brought forward by CGS this month.

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**III. REPORT OF THE COMMITTEE ON UNDERGRADUATE STUDIES & ADVISING (CUSA)**

**A. Curricular Changes for Approval**

**CHEMISTRY**

**CHANGE:** PREREQUISITE

CHEM 150 CHEMISTRY FOR ENGINEERS 5 N

(OLD)  This one semester course is designed for students in the School of Engineering who are not required to take additional chemistry courses at the college level. Topics covered in this integrated lecture and laboratory course include quantum theory, atomic structure, chemical bonding, solids, liquids, gases, thermodynamics, equilibrium, acids and bases, kinetics, polymer chemistry, and materials science. The application of these concepts to engineering problems and practices is emphasized. Prerequisite: Must have completed a course in high school chemistry and be eligible for MATH 121 (or have Departmental consent). Students not admitted to the School of Engineering must receive permission from instructor. CHEM 110 and CHEM 150 cannot both be taken for credit. LEC.

CHEM 150 CHEMISTRY FOR ENGINEERS 5 N

(NEW)  This one semester course is designed for students in the School of Engineering who are not required to take additional chemistry courses at the college level. Topics covered in this integrated lecture and laboratory course include quantum theory, atomic structure, chemical bonding, solids, liquids, gases, thermodynamics, equilibrium, acids and bases, kinetics, polymer chemistry, and materials science. The application of these concepts to engineering problems and practices is emphasized. Prerequisite: Must have completed a course in high school chemistry and be eligible for MATH 121 or MATH 125 (or have Departmental consent). Students not admitted to the School of Engineering must receive permission from instructor. CHEM 110 and CHEM 150 cannot both be taken for credit. LEC.

**CHANGE:** PREREQUISITE

CHEM 530 PHYSICAL CHEMISTRY I 3 N

(OLD)  An introduction to the basic principles of quantum mechanics, atomic and molecular structure, molecular rotations and vibrations, group theory, spectroscopy, and statistical mechanics. Prerequisite: CHEM 135, CHEM 175 or CHEM 195; PHSX 211 and PHSX 212; MATH 121, MATH 122 and MATH 220 or MATH 320; and completion of, or concurrent enrollment in MATH 290 or consent of instructor. LEC.

CHEM 530 PHYSICAL CHEMISTRY I 3 N

(NEW)  An introduction to the basic principles of quantum mechanics, atomic and molecular structure, molecular rotations and vibrations, group theory, spectroscopy, and statistical mechanics. Prerequisite: CHEM 135, CHEM 175 or CHEM 195; PHSX 212; MATH 127 and MATH 220 or MATH 320; and completion of, or concurrent enrollment in MATH 290 or consent of instructor. LEC.

**EAST ASIAN LANGUAGES & CULTURE**

**CHANGE:** NEW COURSE

EALC 328 THE BODY IN JAPAN 3 H

The course examines historical and cultural concepts of the body in Japan and then focuses upon the pivotal events of the last half-century as experienced through the body. Students are introduced to a wide range of extreme bodily experiences: the regimented body of wartime, the body irradiated by the atomic bomb, the body of malnutrition and national humiliation, possessed bodies, licentious bodies, creating life through the body, the aged body, self-immolation of the
body, nurturing the body, beautifying the body, and others. The primary sources of investigation and discussion are novels written after the war, films, anthropological writings, and popular culture. All readings are in English.

**FARSI**

**NEW COURSE**

**FARS 593**

**DIRECTED STUDY IN PERSIAN CULTURE AND LITERATURE:**

This course is designed for students seeking proficiency in Farsi beyond FARS 320. The instructor directs the student through readings and materials in Farsi that add to the student's substantive knowledge of Iran and culture in the Farsi language. May be taken multiple semesters for credit with varying content. Prerequisite: FARS 320 and consent of instructor.

**GLOBAL & INTERNATIONAL STUDIES**

**NEW COURSE**

**GIST 697**

**DIPLOMACY LAB**

This course is designed to partner with an innovative program implemented by the US Department of State. Students enrolling in this course team up with a group of four or more students to address a real world problem posed by a State Department officer. The team, with the assistance of the instructor, engages in extensive and systematic research to address the problem and presents their finding in a formal report presented to the State Department in the desired format. Throughout the semester, the students teleconference with the State Department officer posing the question and utilize their accumulated cultural, linguistic and research knowledge to tackle a real-life, global issue. Prerequisite: GIST 301

**HISTORY**

**NEW COURSE**

**HIST 493**

**HISTORY RESEARCH INTERNSHIP**

The course allows students to work with a faculty mentor and learn firsthand the tasks that historians undertake to research and present their findings. Potential student assignments include database entry and retrieval, translation, fact checking, and compiling sources. Prerequisites: at least one 300-level history course; declared major in history; and permission of the instructor. The course is graded satisfactory/unsatisfactory.

**HUMANITIES & WESTERN CIVILIZATION**

**NEW COURSE**

**HWC 151**

**CIVILIZATIONS AND THE INDIVIDUAL, HONORS**

Honors version of HWC 150. Introduction to perennial themes that define human experience through reading and discussion of primary texts. Topics may include the nature of humanity; nature and the supernatural; the individual and the state. Prerequisite: Membership in the University Honors Program, or permission of instructor LEC.

**HWC 251**

**CIVILIZATIONS AND THE INDIVIDUAL, HONORS**

Honors version of HWC 250. Introduction to perennial themes that define human experience through reading and discussion of primary texts. Topics may include the nature of humanity; nature and the supernatural; the individual and the state. Prerequisite: Membership in the University Honors Program, or permission of instructor LEC.

**LIBERAL ARTS & SCIENCES**

**NEW COURSE**

**LA&S 494**

**SENIOR SEMINAR IN LIBERAL ARTS AND SCIENCES**

LA&S 494 is a seminar to result in the student's integration of knowledge within the liberal arts and sciences. Through lecture and discussion, students explore a series of issues or themes that integrate several disciplines in the humanities, arts, social sciences, and mathematics and natural sciences. A final project (options include a portfolio, web page, paper, presentation) demonstrates the students' knowledge of the concepts, theories, and methods of several disciplines, and their ability to integrate that knowledge across disciplines. Not open to freshmen and sophomores; recommended in the senior year. Prerequisite: Completion of at least 30 junior/senior hours.
PEACE & CONFLICT STUDIES

CHANGE: COURSE DESCRIPTION NUMBER
PCS 121 INTRODUCTION TO PEACE AND CONFLICT STUDIES, HONORS 3 H, HT, GE11,GE3H
(OLD) An introduction to the content and methods of peace studies. Peace studies is a multidisciplinary and interdisciplinary approach to the study of war and peace. Building on and integrating the work of various fields of study, the course examines the causes of structural and direct violence within and among societies and the diverse ways in which humans have sought peace, from conquest and balance of power to international organizations and nonviolent strategies. Open only to students admitted to the University Honors Program or by permission of instructor. Not open to students who have completed PCS 120. LEC.

PCS 221 INTRODUCTION TO PEACE AND CONFLICT STUDIES, HONORS 3 H, HT, GE11,GE3H
(NEW) Honors version of PCS 220. An introduction to the content and methods of peace studies. Peace studies is a multidisciplinary and interdisciplinary approach to the study of war and peace. Building on and integrating the work of various fields of study, the course examines the causes of structural and direct violence within and among societies and the diverse ways in which humans have sought peace, from conquest and balance of power to international organizations and nonviolent strategies. Open only to students admitted to the University Honors Program or by permission of instructor. Not open to students who have completed PCS 220. LEC.

CHANGE: NEW COURSE
PCS 150 STUDY ABROAD TOPICS IN PEACE & CONFLICT STUDIES: ____ 1-5 H
This course is designed for the study of special topics in Peace & Conflict Studies at the 100-200 level (Freshman/Sophomore level). Coursework must be arranged through the KU Office of Study Abroad and approved by a faculty advisor in Peace & Conflict Studies. May be repeated for credit if content varies. LEC.

CHANGE: NEW COURSE
PCS 350 STUDY ABROAD TOPICS IN PEACE & CONFLICT STUDIES: ____. 1-5 H
This course is designed for the study of special topics in Peace & Conflict Studies at the Junior/Senior level. Coursework must be arranged through the KU Office of Study Abroad and approved by a faculty advisor in Peace & Conflict Studies. May be repeated for credit if content varies. LEC.

SPEECH-LANGUAGE-HEARING

CHANGE: NUMBER
SPLH 668 INTRODUCTION TO AUDIOLOGIC ASSESSMENT AND REHABILITATION 4 U
(OLD) This course provides training in clinical management of communicative disorders in children and adults. Principles of evaluation, diagnostics procedures, application of diagnostic information, intervention planning, intervention process, data collection and application, report writing, and interactions with parents and other professionals are examined. Participation in observation and laboratory activities is required. Prerequisite: SPLH 463/663: Hearing Science.

SPLH 568 INTRODUCTION TO AUDIOLOGIC ASSESSMENT AND REHABILITATION 4 U
(NEW) This course provides training in clinical management of communicative disorders in children and adults. Principles of evaluation, diagnostics procedures, application of diagnostic information, intervention planning, intervention process, data collection and application, report writing, and interactions with parents and other professionals are examined. Participation in observation and laboratory activities is required. Prerequisite: SPLH 463/663: Hearing Science.

CHANGE: NUMBER
SPLH 671 INTRODUCTION TO SPEECH-LANGUAGE PATHOLOGY 4 U
(OLD) This course provides training in clinical management of communicative disorders in children and adults. Principles of evaluation, application of diagnostic information, intervention planning, intervention process, data collection and application, report writing, and interactions with parents and other professionals are examined. Participation in observation and laboratory activities is required. No prerequisites.

SPLH 571 INTRODUCTION TO SPEECH-LANGUAGE PATHOLOGY 4 U
(NEW) This course provides training in clinical management of communicative disorders in children and adults. Principles of evaluation, application of diagnostic information, intervention planning, intervention process, data collection and application, report writing, and interactions with parents and other professionals are examined. Participation in observation and laboratory activities is required.
B. Degree Requirements for Approval

1. Changes to Existing Major to BA/BGS – Speech-Language-Hearing

**PROPOSAL:** We requested a change in course numbering for two courses. We requested that SPLH 668 become SPLH 568 and that SPLH 671 become SPLH 571. Both are required courses. Therefore these changes need to be reflected in the Major requirements for SPLH.

Speech-Language-Hearing Core Knowledge and Skills (18)

Majors must complete a course in the following areas:

Language Sample Analysis Laboratory. Satisfied by:
- SPLH 565 Language Sample Analysis Lab

Language Development. Satisfied by:
- SPLH 566 Language Development

Research Methods in Speech-Language-Hearing. Satisfied by:
- SPLH 660 Research Methods in Speech-Language-Hearing

Principles of Speech Science. Satisfied by:
- SPLH 662 Principles of Speech Science

Introduction to Audiological Assessment & Rehabilitation. Satisfied by:
- SPLH 668-SPLH 568 Introduction to Audiological Assessment and Rehabilitation

Introduction to Speech-Language Pathology. Satisfied by:
- SPLH 671-SPLH 571 Introduction to Speech-Language Pathology

**JUSTIFICATION**

In an effort to streamline the sequence of coursework for students pursuing a major in speech-language pathology, several courses in the department will undergo numbering changes in the fall semester of 2015. To remain consistent with these changes and align courses in an appropriate sequence for the students, it is requested that this course number be changed, with no effect to the course content or scope. The course will remain a junior/senior-level course with greater emphasis and identification as a course to be taken during a traditional student’s junior year to allow for enrollment in SPLH 672, for which 671 is a prerequisite, in the student’s senior year.

**EFFECTIVE DATE:** Fall 2015

2. Changes to Existing Major to BA East Asian Languages & Cultures

Japanese Language and Literature Concentration

East Asian Studies w/Japanese Language Concentration

Chinese Language and Literature Concentration

East Asian Languages and Cultures with a Chinese Language concentration

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

**Chinese Language and Literature Concentration**

East Asian Languages and Cultures Prerequisite Knowledge (20)

Elementary Chinese I. Satisfied by:
- CHIN 104 Elementary Chinese I

Elementary Chinese II. Satisfied by:
- CHIN 108 Elementary Chinese II

Language Proficiency. Satisfied by:
- CHIN 204 Intermediate Chinese I
- CHIN 208 and Intermediate Chinese II

East Asian Languages and Cultures Core Knowledge and Skill (22)
Majors choosing this concentration must complete a course or courses in each of the following areas:

**Eastern Civilizations. Satisfied by:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECIV 304</td>
<td>Eastern Civilizations</td>
<td>3</td>
</tr>
<tr>
<td>or ECIV 305</td>
<td>Eastern Civilizations Honors</td>
<td>3</td>
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</table>

**Advanced Language. Satisfied by:**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN 504</td>
<td>Advanced Modern Chinese I</td>
<td>10</td>
</tr>
<tr>
<td>&amp; CHIN 508</td>
<td>and Advanced Modern Chinese II</td>
<td></td>
</tr>
<tr>
<td>CHIN 342</td>
<td>Introduction to Classical Chinese</td>
<td>3</td>
</tr>
<tr>
<td>or CHIN 542</td>
<td>Introduction to Classical Chinese</td>
<td></td>
</tr>
<tr>
<td>CHIN 562</td>
<td>Modern Chinese Texts I</td>
<td>3</td>
</tr>
</tbody>
</table>

And one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIN 544</td>
<td>Readings in Classical Chinese: _____</td>
<td>3</td>
</tr>
<tr>
<td>CHIN 564</td>
<td>Modern Chinese Texts II</td>
<td></td>
</tr>
<tr>
<td>EALC/LING 572</td>
<td>The Structure of Chinese</td>
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</tbody>
</table>

**East Asian Languages and Cultures Required Elective (0)**

Majors choosing this concentration must complete a course in each of the following areas (A course cannot be used in more than 1 area):

**Chinese Literature or Culture in Translation. Satisfied by one course, e.g.:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EALC 314</td>
<td>Traditional Chinese Literature in Translation</td>
<td></td>
</tr>
<tr>
<td>EALC 318/518</td>
<td>Modern Chinese Fiction and Film</td>
<td></td>
</tr>
<tr>
<td>EALC 319/519</td>
<td>Contemporary Chinese Fiction and Film</td>
<td></td>
</tr>
<tr>
<td>EALC 330/530</td>
<td>Chinese Literature and Culture: Premodern Times</td>
<td></td>
</tr>
<tr>
<td>EALC 370</td>
<td>Chinese Folk Belief</td>
<td></td>
</tr>
<tr>
<td>EALC 418/618</td>
<td>Sexual Politics in Chinese Literature and Culture: Premodern Times</td>
<td></td>
</tr>
<tr>
<td>EALC 499</td>
<td>Honors Thesis</td>
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<tr>
<td>EALC 578</td>
<td>Gender and Society in Modern China</td>
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</tbody>
</table>

**Pre-modern China. Satisfied by one course, e.g.:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EALC 330/530</td>
<td>Chinese Literature and Culture: Premodern Times</td>
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</tr>
<tr>
<td>EALC 415/615</td>
<td>Ancient China</td>
<td></td>
</tr>
<tr>
<td>EALC 418/618</td>
<td>Sexual Politics in Chinese Literature and Culture: Premodern Times</td>
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<tr>
<td>EALC 508</td>
<td>Religion in China</td>
<td></td>
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<tr>
<td>EALC 555</td>
<td>Buddhists and Buddhism in China</td>
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<tr>
<td>EALC 583</td>
<td>Imperial China</td>
<td></td>
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<tr>
<td>EALC 642</td>
<td>Chinese Thought</td>
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<tr>
<td>EALC 499</td>
<td>Honors Thesis</td>
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**Modern China. Satisfied by one course, e.g.:**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EALC 318/518</td>
<td>Modern Chinese Fiction and Film</td>
<td></td>
</tr>
<tr>
<td>EALC 319/519</td>
<td>Contemporary Chinese Fiction and Film</td>
<td></td>
</tr>
<tr>
<td>EALC 368</td>
<td>The Peoples of China</td>
<td></td>
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<tr>
<td>EALC 420/620</td>
<td>Daily Life in China From the Opium War to the Present</td>
<td></td>
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<tr>
<td>EALC 578</td>
<td>Gender and Society in Modern China</td>
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<tr>
<td>EALC 584</td>
<td>Modern China</td>
<td></td>
</tr>
<tr>
<td>EALC 585</td>
<td>Reform in Contemporary China</td>
<td></td>
</tr>
<tr>
<td>EALC 649</td>
<td>Doing Business With China: Law and Policy</td>
<td></td>
</tr>
<tr>
<td>EALC 678</td>
<td>Chinese Foreign Policy</td>
<td></td>
</tr>
<tr>
<td>EALC 499</td>
<td>Honors Thesis</td>
<td></td>
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</tbody>
</table>

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:
Major Hours
Satisfied by 31 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 12 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 31 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator.

Japanese Language and Literature Concentration

East Asian Languages and Cultures Prerequisite Knowledge (20)
Elementary Japanese I. Satisfied by:
JPN 104 Elementary Japanese I 5
Elementary Japanese II. Satisfied by:
JPN 108 Elementary Japanese II 5
Language Proficiency. Satisfied by:
JPN 204 & JPN 208 Intermediate Japanese I and Intermediate Japanese II 10

East Asian Languages and Cultures Core Knowledge and Skills (19)
Majors choosing this concentration must complete a course or courses in each of the following areas:
Eastern Civilizations. Satisfied by one of the following:
ECIV 304 Eastern Civilizations 3
or ECIV 305 Eastern Civilizations Honors

Advanced Language. Satisfied by:
JPN 306 & JPN 310 Advanced Japanese Conversation I and Advanced Japanese Conversation II 4
JPN 504 & JPN 508 Advanced Modern Japanese I and Advanced Modern Japanese II 6
JPN 562 Modern Japanese Texts I 3
And one of the following:
JPN 564 Modern Japanese Texts II 3
JPN 569 Advanced Business Japanese
EALC/LING 570 The Structure of Japanese

East Asian Languages and Cultures Required Elective (0)
Majors choosing this concentration must complete a course in each of the following areas (a course cannot be used in more than 1 area):
Pre-Modern Japanese Literature in Translation. Satisfied by one course, e.g.:
EALC 312 Traditional Japanese Literature in Translation
EALC 575 Love, Sexuality and Gender in Japanese Literature

Modern Japanese Literature in Translation. Satisfied by one course, e.g.:
EALC 316 Modern Japanese Literature in Translation: 1868-1945
EALC 317 Contemporary Japanese Literature in Translation: 1945-Present
EALC 328/728 The Body in Japan
EALC 412 Visual and Literary Culture in Modern Japan

Pre-Modern Japan. Satisfied by one course on pre-modern Japan, e.g.:
EALC 312 Traditional Japanese Literature in Translation
EALC 410 The Culture of Play in Japan
Modern Japan. Satisfied by one course on modern Japan, e.g.:

- **EALC 316**  Modern Japanese Literature in Translation: 1868-1945
- **EALC 317**  Contemporary Japanese Literature in Translation: 1945-Present

**EALC 328/728**  The Body in Japan

- **EALC 543**  Contemporary Japanese Film
- **EALC 588**  Japan, 1853-1945
- **EALC 589**  Japan Since 1945
- **EALC 499**  Honors Thesis

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 31 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 12 hours of KU resident credit in the major.

**Major Junior/Senior Hours**
Satisfied by a minimum of 31 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the [Semester/Cumulative GPA Calculator](#).

**East Asian Studies with Chinese Language Concentration**

East Asian Languages and Cultures Prerequisite Knowledge (20)

- Elementary Chinese I. Satisfied by:
  - **CHIN 104**  Elementary Chinese I
  
- Elementary Chinese II. Satisfied by:
  - **CHIN 108**  Elementary Chinese II

  Language Proficiency. Satisfied by:
  - **CHIN 204**  Intermediate Chinese I
  - **CHIN 208**  Intermediate Chinese II

East Asian Languages and Cultures Core Knowledge and Skills (13)

Majors choosing this concentration must complete a course or courses in each of the following areas:

- **Eastern Civilizations**. Satisfied by one of the following
  - **ECIV 304**  Eastern Civilizations
  - **ECIV 305**  Eastern Civilizations Honors

- **Advanced Language**. Satisfied by:
  - **CHIN 504**  Advanced Modern Chinese I
  - **CHIN 508**  Advanced Modern Chinese II

East Asian Languages and Cultures Required Elective (0)

Majors choosing this concentration must complete a course in each of the following areas (a course cannot be used in more than one area):

- **Pre-Modern China**. Satisfied by one course on pre-modern China, e.g.:
  - **EALC 314**  Traditional Chinese Literature in Translation
  - **EALC 330**  Chinese Literature and Culture: Premodern Times

---

9
EALC 415  Ancient China
EALC 418  Sexual Politics in Chinese Literature and Culture: Premodern Times
EALC 583  Imperial China

Modern China. Satisfied by one course on modern China, e.g.:
EALC 318/518  Modern Chinese Fiction and Film
EALC 319/519  Contemporary Chinese Fiction and Film
EALC 578  Gender and Society in Modern China
EALC 420  Daily Life in China From the Opium War to the Present
EALC 584  Modern China
EALC 585  Reform in Contemporary China

China in the Humanities. Satisfied by one course on China in a humanities discipline, e.g.:
EALC 301  Cultural Traditions of China, Inner Asia, and Tibet
EALC 310  The Chinese Novel
EALC 314  Traditional Chinese Literature in Translation
EALC 317  Contemporary Japanese Literature in Translation: 1945-Present
EALC 318/518  Modern Chinese Fiction and Film
EALC 330  Chinese Literature and Culture: Premodern Times
EALC 370  Chinese Folk Belief
EALC 415  Ancient China
EALC 418  Sexual Politics in Chinese Literature and Culture: Premodern Times
EALC 508  Religion in China
EALC 530  Chinese Literature and Culture: Premodern Times
EALC 555  Buddhists and Buddhism in China
EALC 578  Gender and Society in Modern China
EALC 583  Imperial China
EALC 584  Modern China

China in the Social Sciences. Satisfied by one course on China in a social science discipline, e.g.:
EALC 368  The Peoples of China
EALC 572  The Structure of Chinese
EALC 585  Reform in Contemporary China
EALC 678  Chinese Foreign Policy

Advanced East Asian Languages and Cultures. Satisfied by one junior/senior-level (300+) EALC course.

East Asian Course. Satisfied by one course based on an East Asian country other than China, e.g.:
EALC 302  Cultural Traditions of Japan and Korea

**Major Hours & Major GPA**

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 31 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 12 hours of KU resident credit in the major.

**Major Junior/Senior Hours**
Satisfied by a minimum of 31 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the [Semester/Cumulative GPA Calculator](#).
**East Asian Studies with Japanese Language Concentration**

East Asian Languages and Cultures Prerequisite Knowledge (20)

Elementary Japanese I. Satisfied by:

**JPN 104**  
Elementary Japanese I  
5

Elementary Japanese II. Satisfied by:

**JPN 108**  
Elementary Japanese II  
5

Language Proficiency. Satisfied by:

**JPN 204**  
Intermediate Japanese I  
10
& **JPN 208**  
and Intermediate Japanese II

East Asian Languages and Cultures Core Knowledge and Skill (13)

Majors choosing this concentration must complete a course or courses in each of the following areas:

Eastern Civilizations. Satisfied by one of the following:

**ECIV 304**  
Eastern Civilizations  
3
or **ECIV 305**  
Eastern Civilizations Honors

Advanced Language. Satisfied by:

**JPN 306**  
Advanced Japanese Conversation I  
4
& **JPN 310**  
and Advanced Japanese Conversation II

**JPN 504**  
Advanced Modern Japanese I  
6
& **JPN 508**  
and Advanced Modern Japanese II

East Asian Languages and Cultures Required Elective (0)

Majors choosing this concentration must complete a course in each of the following areas (a course cannot be used in more than one area):

Pre-modern Japan. Satisfied by one course on pre-modern Japan, e.g.:

**EALC 312**  
Traditional Japanese Literature in Translation

**EALC 410**  
The Culture of Play in Japan

**EALC 411**  
The Culture of Play in Japan, Honors

**EALC 587**  
Early Modern Japan

Modern Japan. Satisfied by one course on modern Japan, e.g.:

**EALC 316**  
Modern Japanese Literature in Translation: 1868-1945

**EALC 317**  
Contemporary Japanese Literature in Translation: 1945-Present

**EALC 328/728**  
The Body in Japan

**EALC 543**  
Contemporary Japanese Film

**EALC 588**  
Japan, 1853-1945

**EALC 589**  
Japan Since 1945

Japan in the Humanities. Satisfied by one course on Japan in a humanities discipline, e.g.:

**EALC 312**  
Traditional Japanese Literature in Translation

**EALC 315**  
Survey of Japanese Film

**EALC 316**  
Modern Japanese Literature in Translation: 1868-1945

**EALC 317**  
Contemporary Japanese Literature in Translation: 1945-Present

**EALC 328/728**  
The Body in Japan

**EALC 410**  
The Culture of Play in Japan

**EALC 411**  
The Culture of Play in Japan, Honors

**EALC 412**  
Visual and Literary Culture in Modern Japan

**EALC 509**  
Religion in Japan

**EALC 543**  
Contemporary Japanese Film

**EALC 575**  
Love, Sexuality and Gender in Japanese Literature

**EALC 587**  
Early Modern Japan

**EALC 588**  
Japan, 1853-1945

**EALC 589**  
Japan Since 1945
Japan in the Social Sciences. Satisfied by one course on Japan in a social science discipline, e.g.:

- **EALC 328/728** The Body in Japan
- **EALC 350** Contemporary Japan
- **EALC 570** The Structure of Japanese

Advanced East Asian Languages and Cultures. Satisfied by one junior/senior-level (300+) EALC course:

- **EALC 301** Cultural Traditions of China, Inner Asia, and Tibet

East Asian Course. Satisfied by one course based on an East Asian country other than Japan.

### Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 31 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 12 hours of KU resident credit in the major.

**Major Junior/Senior Hours**
Satisfied by a minimum of 31 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the [Semester/Cumulative GPA Calculator](#).

### 3. Changes to Existing Major to BA Geology

#### PROPOSAL

**Revision of the Geology B.A.**
Current geology course requirements include GEOL 331 “Sedimentology and Surface Processes” (4 credits). This course has been revised to include a change in course title and course content (a curricular change for changing a course form was submitted on October 8, 2014). The new course requirement is GEOL 331 Sedimentology and Stratigraphy (4 credits).

Geology Core Knowledge and Skills (24)
Majors must complete the following core courses:

- **GEOL 101** The Way The Earth Works
- **GEOL 103** Geology Fundamentals Laboratory
- **GEOL 311** Mineralogy and Structure of the Earth
- **GEOL 331** Sedimentology and Stratigraphy
- **GEOL 360** Field Investigation
- **GEOL 521** Paleontology
- **GEOL 560** Introductory Field Geology
- **GEOL 562** Structural Geology

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

The proposed change is the result of The Department of Geology revising its curriculum. A required course for the BA in General Geology, GEOL 331, was revised which resulted in the proposed curricular revision.

EFFECTIVE: Fall 2015

4. NEW Major BA Jewish Studies

PROPOSAL

NEW MAJOR PROPOSAL – BA JEWISH STUDIES

Students take 30 credit hours structured according to the following plan:

2 Jewish culture or history courses;
2 religion courses relevant to Judaism;
2 courses of intermediate or advanced Hebrew and/or Yiddish;
1 capstone seminar course (JWSH 601), writing intensive;¹ and
3 elective courses, allowing the student to explore Jewish Studies in greater breadth and depth.

Culture or History (2 courses)
JWSH 300 Topics in Jewish Studies: ______
Jewish American Popular Culture (meets with AMS 344/THR 380)
Archaeology of Ancient Israel
JWSH 311 Narratives of Jewish Life
JWSH 318 Jews and Slavs in Eastern Europe
JWSH 315/HIST 325/SPAN 302 Spanish Inquisition
JWSH 327 Jewish Secular Culture
JWSH 338 Languages of the Jews (339 H)
JWSH 340 Topics in Modern Jewish Literature
JWSH/HIST 343 The Holocaust in History
JWSH 350 Contemporary Jewish Identities
JWSH 361 Jewish Film
JWSH/REL 526 Jewish History & Literature in the Greek & Roman Periods
JWSH/REL 560 Classical and Contemporary Jewish Thought
JWSH/REL 570: Studies in Judaism
JWSH 572 Jewish Folklore (573 H)
THR 302/702 Sem in: Theatre & Genocide

Religion (2 courses relevant to Judaism)
JWSH/REL 107 Living Religions of the West
JWSH/REL 124 Understanding the Bible (125 H)
JWSH 300 Topics in Jewish Studies
Mysticism and the Supernatural
The Story of the Talmud
JWSH 321/REL 311 Religion of Ancient Israel
JWSH/REL 325 Introduction to Judaism
JWSH/REL 523 The Dead Sea Scrolls
JWSH/REL 525 Jews and Christians

Language (2 courses)
prerequisite: successful completion of introductory Hebrew or Yiddish

2 further courses in Languages (Hebrew and/or Yiddish) at or above the 200-level
JWSH 338 Languages of the Jews (339 H)
HEBR 210 Intermediate Israeli Hebrew I
HEBR 220 Intermediate Israeli Hebrew II
HEBR 230 Biblical Hebrew I
HEBR 240 Biblical Hebrew II
HEBR 310: Introduction to Modern Hebrew Literature
HEBR 340 Advanced Israeli Hebrew I

¹ This capstone course (JWSH 601) will be taught each semester and is required for all majors; students will be strongly advised to take the course in the year before they graduate. The topic of the course may be similar to that in a regularly taught JS course, in which case the students in 601 will meet separately to develop their own research projects. At present (March 2014), JWSH 601 does not yet exist; once the JS major is approved the appropriate form for the new course will be submitted to CUSA.
HEBR 350 Advanced Israeli Hebrew II
HEBR 395 Study Abroad Topics in Hebrew: _____ (3-6 CH)
HEBR 410 Studies Modern Hebrew Literature & Culture I
HEBR 420 Studies Modern Hebrew Literature & Culture II
HEBR 490 Independent Study (1-3 CH)
YDSH 212: Intermediate Yiddish I
YDSH 216: Intermediate Yiddish II
YDSH 300 Studies in Yiddish
YDSH 395 Study Abroad Topics in Yiddish (3-6 CH)
YDSH 490 Independent Study (1-3 CH)

Capstone course (1 course)
JWSH 601. Senior seminar (lecture topics vary; writing intensive)

Electives (3 courses)
Any 3 courses from the previous lists

Justification:
Due to the rising number of KU undergraduate students interested in Jewish Studies, non-Jews and Jews alike, a new major in Jewish Studies will have great appeal. At the moment of writing this proposal, two undergraduate students minoring in Jewish Studies are submitting proposals for a Special Major in Jewish Studies. Along with the rise in the number of courses (both original and cross-listed) and study abroad opportunities (both in Israel and elsewhere), a Jewish Studies major will boost our already growing number of students in the JS Program as attested by increased enrollments and by a rising number of JS minors (from 9 in January 2013 to 19 in March 2014).

As the only such undergraduate program in the state of Kansas, this major in Jewish Studies would satisfy a primary criterion in the University's mission statement, to offer a unique curriculum of study to the people of Kansas.

Because an undergraduate major in Jewish Studies would be an interdisciplinary program, taking advantage of courses, programs, and research projects across a broad spectrum of departments and units (e.g., Religious Studies, History, Classics, English, Slavic), such a major would also fit with KU's Planning for Excellence which emphasizes collaborative interdisciplinary research and teaching. The Jewish Studies major fits the Provost's third Strategic Initiative of "building communities" at the undergraduate level by reaching out to the large Jewish communities both here in Lawrence (the Lawrence Jewish Community Center, student fraternities on KU campus, and KU Hillel and Chabad), in the Kansas City Metropolitan Area (the Kansas City Jewish Community Campus), in Topeka (the Jewish Community Center and Temple Beth-Shalom), and in Wichita (the Mid-Kansas Jewish Federation).

5. Changes to Existing Major to BS Behavioral Neuroscience

CHANGE TO EXISTING MAJOR – BS IN BEHAVIORAL NEUROSCIENCE
This change is to address the restructuring of the calculus sequence.

Mathematics (14 hrs. minimum)

Satisfied by completing a total of 4 mathematics courses totaling at least 14 hours, of which at least 6 hours must be calculus or calculus based. The 6–8 hours of calculus can be satisfied by taking at least one calculus I course (MATH 115 or MATH 121) and one calculus II course (MATH 116 or MATH 122). The remaining four to eight hours of mathematics can be satisfied by taking a minimum of two additional math courses at any level (excluding MATH 002).

Following changes all related to calculus related changes:

6. Changes to Existing Major to BA Chemistry

BA CHEMISTRY – change to existing major:
The following changes are to address the re-sequencing of the calculus courses.

Current BA CHEMISTRY
Mathematics and Physics (14-19)
MATH 115 Calculus I 3-5
or MATH 121 Calculus I
<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 116 or MATH 122</td>
<td>Calculus II</td>
<td>3-5</td>
</tr>
<tr>
<td>PHSX 114 or PHSX 211 &amp; PHSX 216</td>
<td>College Physics I and General Physics I Laboratory</td>
<td>4-5</td>
</tr>
<tr>
<td>PHSX 115 or PHSX 212 &amp; PHSX 236</td>
<td>College Physics II and General Physics II Laboratory</td>
<td>4</td>
</tr>
</tbody>
</table>

New

BA CHEMISTRY

Mathematics and Physics (14-19)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 115 or MATH 125</td>
<td>Calculus I</td>
<td>3-5</td>
</tr>
<tr>
<td>MATH 116 or MATH 126</td>
<td>Calculus II</td>
<td>3-5</td>
</tr>
<tr>
<td>PHSX 114 or PHSX 211 &amp; PHSX 216</td>
<td>College Physics I and General Physics I Laboratory</td>
<td>4-5</td>
</tr>
<tr>
<td>PHSX 115 or PHSX 212 &amp; PHSX 236</td>
<td>College Physics II and General Physics II Laboratory</td>
<td>4</td>
</tr>
</tbody>
</table>

7. Changes to Existing BA Math

PROPOSAL

Old Requirements for the B.A. Major

Mathematics Core Knowledge and Skills (21)

Majors must complete courses as specified in each of the following areas:

Calculus I. Satisfied by one of the following:
- MATH 121 or MATH 141: Calculus I
- MATH 122 or MATH 142: Calculus I: Honors

Calculus II. Satisfied by one of the following:
- MATH 223 or MATH 243: Calculus II
- MATH 224 or MATH 244: Calculus II: Honors

Vector Calculus. Satisfied by one of the following:
- MATH 223 or MATH 243: Vector Calculus
- MATH 224 or MATH 244: Vector Calculus, Honors

Elementary Linear Algebra. Satisfied by one of the following:
- MATH 290 or MATH 291: Elementary Linear Algebra
- MATH 290 or MATH 291: Elementary Linear Algebra, Honors

Analysis. Satisfied by one of the following:
- MATH 500 or MATH 765: Intermediate Analysis
- MATH 500 or MATH 765: Mathematical Analysis I

Linear Algebra. Satisfied by one of the following:
- MATH 590 or MATH 790: Linear Algebra
- MATH 590 or MATH 790: Linear Algebra II

Math Sequence Requirement (6)

Majors must choose one of the following 2-course sequences. Courses selected above may contribute to the minimum of 6 hours.

Probability & Statistics. Satisfied by:
- MATH 627 & MATH 628: Probability and Mathematical Theory of Statistics

Geometry. Satisfied by:
- MATH 660 & MATH 661: Geometry I and Geometry II
### Analysis. Satisfied by:

| MATH 765 & MATH 766 | Mathematical Analysis I and Mathematical Analysis II |

### Numerical Analysis. Satisfied by:

| MATH 781 & MATH 782 | Numerical Analysis I and Numerical Analysis II |

### Linear & Modern Algebra. Satisfied by:

| MATH 790 & MATH 791 | Linear Algebra II and Modern Algebra |

### Analysis & Complex Variables. Satisfied by:

| MATH 500 & MATH 646 | Intermediate Analysis and Complex Variable and Applications |

### Statistics & Regression Analysis. Satisfied by:

| MATH 526 & MATH 605 | Applied Mathematical Statistics I and Applied Regression Analysis |

### Statistics & Time Series Analysis. Satisfied by:

| MATH 526 & MATH 611 | Applied Mathematical Statistics I and Time Series Analysis |

### Mathematical Models. Satisfied by:

| MATH 530 & MATH 531 | Mathematical Models I and Mathematical Models II |

### Number Theory & Modern Algebra. Satisfied by:

| MATH 540 & MATH 558 | Elementary Number Theory and Introductory Modern Algebra |

### Modern Algebra & Coding Theory. Satisfied by:

| MATH 558 & MATH 601 | Introductory Modern Algebra and Algebraic Coding Theory |

### Numerical Methods & Linear Algebra. Satisfied by:

| MATH 581 & MATH 591 | Numerical Methods and Applied Numerical Linear Algebra |

### Linear Algebra. Satisfied by:

| MATH 590 & MATH 790 | Linear Algebra and Linear Algebra II |

### Complex Variables & Partial Differential Equations. Satisfied by:

| MATH 646 & MATH 647 | Complex Variable and Applications and Applied Partial Differential Equations |

### Partial Differential Equations & Calculus of Variations. Satisfied by:

| MATH 647 & MATH 648 | Applied Partial Differential Equations and Calculus of Variations and Integral Equations |

### Combinatorics & Graph Theory. Satisfied by:

| MATH 724 & MATH 725 | Combinatorial Mathematics and Graph Theory |

### Math Breadth (15)

Majors must complete a minimum of 5 mathematics courses numbered 300 and above (each at least 3 credits), excluding MATH 365, MATH 409, and MATH 410, but including the upper division courses used to satisfy the core and sequence requirements. The goals are to gain exposure to a variety of concepts and methods in mathematics, develop abstract and critical thinking, and acquire knowledge to prepare for a career using mathematics, further study of mathematics, or interdisciplinary work involving mathematics.

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### Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

**Major Hours**
Satisfied by 30 hours of major courses.

**Major Hours in Residence**
Satisfied by a minimum of 15 hours of KU resident credit in the major.

**Major Junior/Senior Hours**
Satisfied by a minimum of 15 hours from junior/senior courses (300+) in the major.

**Major Junior/Senior Graduation GPA**
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator.

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16
NEW Requirements for the B.A. Major

Mathematics Core Knowledge and Skills (20)

Majors must complete courses as specified in each of the following areas:

Calculus I. Satisfied by one of the following:

- MATH 125
- or MATH 145

Calculus II. Satisfied by one of the following:

- MATH 126
- or MATH 146

Calculus III. Satisfied by one of the following:

- MATH 127
- or MATH 147

Elementary Linear Algebra. Satisfied by one of the following:

- MATH 290
- or MATH 291

Analysis. Satisfied by one of the following:

- MATH 500
- or MATH 765

Linear Algebra. Satisfied by one of the following:

- MATH 590
- or MATH 790

Math Sequence Requirement (6)

Majors must choose one of the following 2-course sequences. Courses selected above may contribute to the minimum of 6 hours.

Probability & Statistics. Satisfied by:

- MATH 627
- & MATH 628

Geometry. Satisfied by:

- MATH 660
- & MATH 661

Analysis. Satisfied by:

- MATH 765
- & MATH 766

Numerical Analysis. Satisfied by:

- MATH 781
- & MATH 782

Linear & Modern Algebra. Satisfied by:

- MATH 790
- & MATH 791

Analysis & Complex Variables. Satisfied by:

- MATH 500
- & MATH 646

Statistics & Regression Analysis. Satisfied by:

- MATH 526
- & MATH 605

Statistics & Time Series Analysis. Satisfied by:

- MATH 526
- & MATH 611

Mathematical Models. Satisfied by:

- MATH 530
- & MATH 531

Number Theory & Modern Algebra. Satisfied by:

- MATH 540
- & MATH 558

Modern Algebra & Coding Theory. Satisfied by:

- MATH 558
- & MATH 601

Numerical Methods & Linear Algebra. Satisfied by:
MATH 581 & MATH 591   Numerical Methods and Applied Numerical Linear Algebra
Linear Algebra. Satisfied by:

MATH 590 & MATH 790       Linear Algebra and Linear Algebra II
Complex Variables & Partial Differential Equations. Satisfied by:

MATH 646 & MATH 647   Complex Variable and Applications and Applied Partial Differential Equations
Partial Differential Equations & Calculus of Variations. Satisfied by:

MATH 647 & MATH 648   Applied Partial Differential Equations and Calculus of Variations and Integral Equations
Combinatorics & Graph Theory. Satisfied by:

MATH 724 & MATH 725  Combinatorial Mathematics and Graph Theory
Math Breadth (15)

Majors must complete a minimum of 5 mathematics courses numbered 300 and above (each at least 3 credits), excluding MATH 365, MATH 409 and MATH 410, but including the upper division courses used to satisfy the core and sequence requirements. The goals are to gain exposure to a variety of concepts and methods in mathematics, develop abstract and critical thinking, and acquire knowledge to prepare for a career using mathematics, further study of mathematics, or interdisciplinary work involving mathematics.

Major Hours & Major GPA
While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours
Satisfied by 29 hours of major courses.

Major Hours in Residence
Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours
Satisfied by a minimum of 15 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA
Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F’s and repeated courses. See the Semester/Cumulative GPA Calculator.

JUSTIFICATION
We are changing the calculus sequence from MATH 121-122-223 to MATH 125-126-127 to facilitate transfers and improve student success. The new calculus sequence is a total of 12 credit hours, while the old was 13, so this decreases the total credit hours for the degree by 1. We are considering adding another course requirement in the future, but we are not ready to do that yet.

EFFECTIVE: Fall 2015

8. Changes to Existing Major BS Chemistry

BS CHEMISTRY – change to existing major:
The following changes are to address the re-sequencing of the calculus courses.

Current BS CHEMISTRY

Chemistry Prerequisite or Co-requisite Knowledge (27-28)
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 one of the following:  5
MATH 121    Calculus I
MATH 141    Calculus I: Honors

Calculus II. Satisfied by one of the following:  5
MATH 122    Calculus II
MATH 142    Calculus II: Honors

Differential Equations. Satisfied by one of the following:  3
MATH 220    Applied Differential Equations
MATH 320  Elementary Differential Equations
Elementary Linear Algebra. Satisfied by:
MATH 290  Elementary Linear Algebra  2
General Physics I. Satisfied by one of the following:  5
PHSX 211  General Physics I
& PHSX 216  and General Physics I Laboratory
PHSX 213  General Physics I Honors
General Physics II. Satisfied by one of the following:  4
PHSX 212  General Physics II
& PHSX 236  and General Physics II Laboratory
PHSX 214  General Physics II Honors

New
Chemistry Prerequisite or Co-requisite Knowledge (28-30)
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 one of the following:  5
MATH 121  Calculus I
MATH 125
MATH 145  Calculus I, Honors
Calculus II. Satisfied by one of the following:  5
MATH 122  Calculus II
MATH 126
MATH 146  Calculus II, Honors
Calculus III. Satisfied by one of the following:  4
MATH 127  Calculus III
MATH 147  Calculus III, Honors
Differential Equations. Satisfied by one of the following:  3
MATH 220  Applied Differential Equations
MATH 320  Elementary Differential Equations
Elementary Linear Algebra. Satisfied by:
MATH 290  Elementary Linear Algebra  2
General Physics I. Satisfied by one of the following:  5
PHSX 211  General Physics I
& PHSX 216  and General Physics I Laboratory
PHSX 213  General Physics I Honors
General Physics II. Satisfied by one of the following:  4
PHSX 212  General Physics II
& PHSX 236  and General Physics II Laboratory
PHSX 214  General Physics II Honors

9. Changes to Existing Major to BS Math

PROPOSAL

OLD Requirements for the B.S. Degree
First- and Second-Year Preparation (18)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>Calculus I</td>
</tr>
<tr>
<td>or MATH 141</td>
<td>Calculus I: Honors</td>
</tr>
<tr>
<td>MATH 122</td>
<td>Calculus II</td>
</tr>
</tbody>
</table>
or **MATH 142**  
*Calculus II: Honors*

| **MATH 223**  
or **MATH 243**  
|-----------------|-----------------|
| **Vector Calculus**  
or **Vector Calculus, Honors**  
|-----------------|-----------------|

| **MATH 290**  
or **MATH 291**  
|-----------------|-----------------|
| **Elementary Linear Algebra**  
or **Elementary Linear Algebra, Honors**  
|-----------------|-----------------|

Select one of the following:

| **MATH 320**  
|-----------------|
| **Elementary Differential Equations**  
|-----------------|

| **MATH 220**  
|-----------------|
| **Applied Differential Equations**  
|-----------------|

| **MATH 221**  
|-----------------|
| **Applied Differential Equations, Honors**  
|-----------------|

**Core Requirements (12)**

| **MATH 590**  
or **MATH 790**  
|-----------------|-----------------|
| **Linear Algebra**  
or **Linear Algebra II**  
|-----------------|-----------------|

| **MATH 500**  
or **MATH 765**  
|-----------------|-----------------|
| **Intermediate Analysis**  
or **Mathematical Analysis I**  
|-----------------|-----------------|

| **MATH 558**  
or **MATH 791**  
|-----------------|-----------------|
| **Introductory Modern Algebra**  
or **Modern Algebra**  
|-----------------|-----------------|

Select one of the following:

| **MATH 526**  
|-----------------|
| **Applied Mathematical Statistics I**  
|-----------------|

| **MATH 628**  
|-----------------|
| **Mathematical Theory of Statistics**  
|-----------------|

| **MATH 728**  
|-----------------|
| **Statistical Theory**  
|-----------------|

**Mathematics Concentration/Sequence Requirements (6-12)**

Select one 2-course sequence from List A and a second 2-course sequence from either List A or List B

**Electives (0-6)**

Select up to 2 additional 3-credit-hour courses to complete a total of 24 credit hours of mathematics courses numbered **MATH 450** and above.

**Applied Concentration (8)**

3 courses, totaling at least 8 credit hours, that make significant use of mathematics. At least 2 courses must be in the same area. Courses from List A or List B with significant use of mathematics can be used for the applied concentration with the approval of a mathematics department advisor.

**Note:** Many of these courses have prerequisites that do not count toward the mathematics major.

**Minimum Major Requirements**

42 hours

**Applied Concentration:** 8 hours  
**General Education Requirements:** 46-50 hours  
**Completion of the University Core Curriculum**

**Writing (6)**

| **ENGL 101**  
|-----------------|
| **Composition (or exemption)**  
|-----------------|

Select one of the following:

| **ENGL 102**  
|-----------------|
| **Critical Reading and Writing (or exemption)**  
|-----------------|

| **ENGL 105**  
|-----------------|
| **Freshman Honors English (or exemption)**  
|-----------------|

**Computer Science (3-4)**

Select one of the following:

| **EECS 138**  
|-----------------|
| **Introduction to Computing: _____**  
|-----------------|

| **EECS 168**  
|-----------------|
| **Programming I**  
|-----------------|

| **EECS 169**  
|-----------------|
| **Programming I: Honors**  
|-----------------|

**Natural Science (7-10)**

Select one course with laboratory  
Select one additional course in a natural science other than mathematics  

(List A, B, C left out. They stay the same. See below.)

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

**First- and Second-Year Preparation (17)**

| **MATH 125**  
or **MATH 145**  
|-----------------|-----------------|
| **Calculus I**  
or **Calculus I, Honors**  
|-----------------|-----------------|

| **MATH 126**  
|-----------------|
| **Calculus II**  
|-----------------|
or MATH 146  Calculus II, Honors
MATH 127  Calculus III
or MATH 147  Calculus III, Honors
MATH 290  Elementary Linear Algebra
or MATH 291  Elementary Linear Algebra, Honors
Select one of the following:
MATH 320  Elementary Differential Equations
MATH 220  Applied Differential Equations
MATH 221  Applied Differential Equations, Honors

Core Requirements (12)
MATH 590  Linear Algebra
or MATH 790  Linear Algebra II
MATH 500  Intermediate Analysis
or MATH 765  Mathematical Analysis I
MATH 558  Introductory Modern Algebra
or MATH 791  Modern Algebra
Select one of the following:
MATH 526  Applied Mathematical Statistics I
MATH 628  Mathematical Theory of Statistics
MATH 728  Statistical Theory

Mathematics Concentration/Sequence Requirements (6-12)
Select one 2-course sequence from List A and a second 2-course sequence from either List A or List B

Electives (0-6)
Select up to 2 additional 3-credit-hour courses to complete a total of 24 credit hours of mathematics courses numbered MATH 450 and above.

Applied Concentration (8)
3 courses, totaling at least 8 credit hours, that make significant use of mathematics. At least 2 courses must be in the same area. Courses from List C will make significant use of mathematics can be used for the applied concentration with the approval of a mathematics department advisor.

Note: Many of these courses have prerequisites that do not count toward the mathematics major.

Minimum Major Requirements
41 hours
Applied Concentration: 8 hours
General Education Requirements: 37 - 39 hours
Completion of the University Core Curriculum. This will generally comprise 30 credits outside the mathematics major. The list below shows Goal 2, learning outcome 1 Written communication requirement, Goal 3, natural science requirement and additional general education requirements for the BS in Mathematics.

Writing (6)
ENGL 101  Composition (or exemption)
Select one of the following:
ENGL 102  Critical Reading and Writing (or exemption)
ENGL 105  Freshman Honors English (or exemption)

Computer Science (3-4)
Select one of the following:
EECS 138  Introduction to Computing: ______
EECS 168  Programming I
EECS 169  Programming I: Honors

Natural Science (7-10)
Select one course with laboratory
Select one additional course in a natural science other than mathematics

List A Sequences
MATH 627  Probability
& MATH 628  and Mathematical Theory of Statistics
MATH 660  Geometry I
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>&amp; MATH 661</td>
<td>Probability Theory</td>
</tr>
<tr>
<td>MATH 727</td>
<td>and Statistical Theory</td>
</tr>
<tr>
<td>&amp; MATH 728</td>
<td>Mathematical Analysis I</td>
</tr>
<tr>
<td>MATH 765</td>
<td>and Mathematical Analysis II</td>
</tr>
<tr>
<td>&amp; MATH 766</td>
<td>Numerical Analysis I</td>
</tr>
<tr>
<td>MATH 781</td>
<td>and Numerical Analysis II</td>
</tr>
<tr>
<td>&amp; MATH 782</td>
<td>Linear Algebra II</td>
</tr>
<tr>
<td>MATH 790</td>
<td>and Modern Algebra</td>
</tr>
</tbody>
</table>

List B Sequences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>MATH 500</td>
<td>Intermediate Analysis</td>
</tr>
<tr>
<td>&amp; MATH 646</td>
<td>and Complex Variable and Applications</td>
</tr>
<tr>
<td>MATH 526</td>
<td>Applied Mathematical Statistics I</td>
</tr>
<tr>
<td>&amp; MATH 605</td>
<td>and Applied Regression Analysis</td>
</tr>
<tr>
<td>MATH 526</td>
<td>Applied Mathematical Statistics I</td>
</tr>
<tr>
<td>&amp; MATH 611</td>
<td>and Time Series Analysis</td>
</tr>
<tr>
<td>MATH 540</td>
<td>Elementary Number Theory</td>
</tr>
<tr>
<td>&amp; MATH 558</td>
<td>and Introductory Modern Algebra</td>
</tr>
<tr>
<td>MATH 558</td>
<td>Introductory Modern Algebra</td>
</tr>
<tr>
<td>&amp; MATH 601</td>
<td>and Algebraic Coding Theory</td>
</tr>
<tr>
<td>MATH 540</td>
<td>Elementary Number Theory</td>
</tr>
<tr>
<td>&amp; MATH 791</td>
<td>and Modern Algebra</td>
</tr>
<tr>
<td>MATH 581</td>
<td>Numerical Methods</td>
</tr>
<tr>
<td>&amp; MATH 591</td>
<td>and Applied Numerical Linear Algebra</td>
</tr>
<tr>
<td>MATH 590</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>&amp; MATH 790</td>
<td>and Linear Algebra II</td>
</tr>
<tr>
<td>MATH 601</td>
<td>Algebraic Coding Theory</td>
</tr>
<tr>
<td>&amp; MATH 791</td>
<td>and Modern Algebra</td>
</tr>
<tr>
<td>MATH 605</td>
<td>Applied Regression Analysis</td>
</tr>
<tr>
<td>&amp; MATH 611</td>
<td>and Time Series Analysis</td>
</tr>
<tr>
<td>MATH 646</td>
<td>Complex Variable and Applications</td>
</tr>
<tr>
<td>&amp; MATH 647</td>
<td>and Applied Partial Differential Equations</td>
</tr>
<tr>
<td>MATH 646</td>
<td>Complex Variable and Applications</td>
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<tr>
<td>&amp; MATH 765</td>
<td>and Mathematical Analysis I</td>
</tr>
<tr>
<td>MATH 647</td>
<td>Applied Partial Differential Equations</td>
</tr>
<tr>
<td>&amp; MATH 648</td>
<td>and Calculus of Variations and Integral Equations</td>
</tr>
<tr>
<td>MATH 724</td>
<td>Combinatorial Mathematics</td>
</tr>
<tr>
<td>&amp; MATH 725</td>
<td>and Graph Theory</td>
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</table>

List C Applied Concentration Courses

Statistics (15)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MATH 605</td>
<td>Applied Regression Analysis</td>
</tr>
<tr>
<td>MATH 611</td>
<td>Time Series Analysis</td>
</tr>
<tr>
<td>MATH 624</td>
<td>Discrete Probability</td>
</tr>
<tr>
<td>ECON 817</td>
<td>Econometrics I</td>
</tr>
<tr>
<td>ECON 818</td>
<td>Econometrics II</td>
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</table>

Economics and Finance (42)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECON 526</td>
<td>Introduction to Econometrics</td>
</tr>
<tr>
<td>ECON 590</td>
<td>Game Theory</td>
</tr>
<tr>
<td>ECON 620</td>
<td>Elements of Mathematical Economics</td>
</tr>
<tr>
<td>ECON 700</td>
<td>Survey of Microeconomics</td>
</tr>
<tr>
<td>ECON 701</td>
<td>Survey of Macroeconomics</td>
</tr>
<tr>
<td>ECON 715</td>
<td>Elementary Econometrics</td>
</tr>
<tr>
<td>ECON 716</td>
<td>Econometric Forecasting</td>
</tr>
<tr>
<td>FIN 310</td>
<td>Finance</td>
</tr>
<tr>
<td>FIN 410</td>
<td>Investment Theory and Applications</td>
</tr>
<tr>
<td>FIN 415</td>
<td>Corporate Finance</td>
</tr>
<tr>
<td>FIN 420</td>
<td>International Finance</td>
</tr>
<tr>
<td>FIN 425</td>
<td>Futures and Options</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>-------------</td>
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<tr>
<td>MATH 630</td>
<td>Actuarial Mathematics</td>
</tr>
<tr>
<td>SCM 310</td>
<td>Management Science and Operations Management</td>
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<tr>
<td><strong>Biology (19)</strong></td>
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</tr>
<tr>
<td>BIOL 350</td>
<td>Principles of Genetics</td>
</tr>
<tr>
<td>BIOL 412</td>
<td>Evolutionary Biology</td>
</tr>
<tr>
<td>BINF 701</td>
<td>Bioinformatics I</td>
</tr>
<tr>
<td>BINF 702</td>
<td>Bioinformatics II</td>
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<tr>
<td>BIOL 743</td>
<td>Population Genetics</td>
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<tr>
<td><strong>Physics and Astronomy (42)</strong></td>
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<tr>
<td>PHSX 313</td>
<td>General Physics III</td>
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<tr>
<td>PHSX 511</td>
<td>Introductory Quantum Mechanics</td>
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<tr>
<td>PHSX 518</td>
<td>Mathematical Physics</td>
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<td>PHSX 521</td>
<td>Mechanics I</td>
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<tr>
<td>PHSX 531</td>
<td>Electricity and Magnetism</td>
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<tr>
<td>ASTR 591</td>
<td>Stellar Astronomy</td>
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<td>ASTR 592</td>
<td>Galactic and Extragalactic Astronomy</td>
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<td>PHSX 621</td>
<td>Mechanics II</td>
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<td>PHSX 631</td>
<td>Electromagnetic Theory</td>
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<td>PHSX 655</td>
<td>Optics</td>
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<td>PHSX 671</td>
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<td>PHSX 691</td>
<td>Astrophysics I</td>
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<td>PHSX 711</td>
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<td>PHSX 741</td>
<td>Nuclear Physics I</td>
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<td><strong>Chemistry (10)</strong></td>
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<tr>
<td>CHEM 530</td>
<td>Physical Chemistry I</td>
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<td>CHEM 535</td>
<td>Physical Chemistry II</td>
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<td>CHEM 620</td>
<td>Analytical Chemistry</td>
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<td><strong>Aerospace Engineering (28)</strong></td>
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<tr>
<td>AE 345</td>
<td>Fluid Mechanics</td>
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<td>AE 445</td>
<td>Aircraft Aerodynamics and Performance</td>
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<tr>
<td>AE 507</td>
<td>Aerospace Structures I</td>
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<tr>
<td>AE 545</td>
<td>Fundamentals of Aerodynamics</td>
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<tr>
<td>AE 550</td>
<td>Dynamics of Flight I</td>
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<td>AE 551</td>
<td>Dynamics of Flight II</td>
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<td>AE 552</td>
<td>Honors Dynamics of Flight II</td>
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<tr>
<td>AE 750</td>
<td>Applied Optimal Control</td>
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<td><strong>Chemical and Petroleum Engineering (13)</strong></td>
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<tr>
<td>C&amp;PE 211</td>
<td>Material and Energy Balances</td>
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<tr>
<td>C&amp;PE 511</td>
<td>Momentum Transfer</td>
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<tr>
<td>C&amp;PE 521</td>
<td>Heat Transfer</td>
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<tr>
<td>C&amp;PE 523</td>
<td>Mass Transfer</td>
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<td><strong>Civil Engineering (34)</strong></td>
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<tr>
<td>CE 201</td>
<td>Statics</td>
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<tr>
<td>CE 300</td>
<td>Dynamics</td>
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<td>CE 301</td>
<td>Statics and Dynamics</td>
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<td>CE 311</td>
<td>Strength of Materials</td>
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<td>CE 330</td>
<td>Fluid Mechanics</td>
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<td>CE 461</td>
<td>Structural Analysis</td>
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<tr>
<td>CE 704</td>
<td>Dynamics and Vibrations</td>
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<td>CE 730</td>
<td>Intermediate Fluid Mechanics</td>
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<td>CE 461</td>
<td>Structural Analysis</td>
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<tr>
<td>CE 704</td>
<td>Dynamics and Vibrations</td>
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<tr>
<td><strong>Electrical Engineering and Computer Science (56)</strong></td>
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<tr>
<td>EECS 211</td>
<td>Circuits I</td>
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<tr>
<td>EECS 220</td>
<td>Electromagnetics I</td>
</tr>
<tr>
<td>EECS 360</td>
<td>Signal and System Analysis</td>
</tr>
<tr>
<td>EECS 420</td>
<td>Electromagnetics II</td>
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</table>
EECS 444  Control Systems  
EECS 510  Introduction to the Theory of Computing  
EECS 560  Data Structures  
EECS 562  Introduction to Communication Systems  
EECS 638  Fundamentals of Expert Systems  
EECS 644  Introduction to Digital Signal Processing  
EECS 649  Introduction to Artificial Intelligence  
EECS 660  Fundamentals of Computer Algorithms  
EECS 662  Programming Languages  
EECS 672  Introduction to Computer Graphics  
EECS 718  Graph Algorithms  
EECS 730  Introduction to Bioinformatics  
EECS 744  Communications and Radar Digital Signal Processing  

**Mechanical Engineering (20)**  
ME 201  Statics  
ME 311  Mechanics of Materials  
ME 312  Basic Engineering Thermodynamics  
ME 508  Numerical Analysis of Mechanical Engineering Problems  
ME 510  Fluid Mechanics  
ME 612  Heat Transfer  
ME 682  System Dynamics and Control Systems  

**Curriculum & Instruction (9)**  
C&T 360  Knowing and Learning in Mathematics and Science  
C&T 366  Classroom Interactions in Mathematics and Science  
C&T 460  Project Based Instruction in Mathematics and Science  

**Notes:** A student using at least 2 statistics courses for the applied concentration must complete MATH 627 and MATH 628 (or MATH 727 and MATH 728) as a List A sequence. (MATH 627, MATH 628, MATH 727, and MATH 728 do not count for the applied concentration.) A student using at least 2 curriculum & instruction courses for the applied concentration must complete PHSX 211 as one of the natural science courses and must complete at least 1 of the geometry courses MATH 559, MATH 660, or MATH 661.

Courses used to satisfy the core mathematics requirements can also be used to complete List A and List B sequences. However, no course can be used for 2 List A or B sequences, and courses used for the Applied Concentration requirement cannot also be counted toward the 24 credit hours of advanced mathematics courses for the B.S. degree.

Some courses satisfying the sequence requirements are taught infrequently. More advanced courses can be substituted for lower level courses in many cases. Consult the mathematics department for expected course offerings and substitutions.

**JUSTIFICATION**

We are changing the calculus sequence from MATH 121-122-223 to MATH 125-126-127 to facilitate transfers and improve student success. The new calculus sequence is a total of 12 credit hours, while the old was 13, so this decreases the total credit hours for the degree by 1. We do not anticipate adding any further requirements to the BS in Mathematics.

**EFFECTIVE DATE. Fall 2015**

**10. Changes to Existing Minor in Chemistry**

The following changes are to address the re-sequencing of the calculus courses.

**Chemistry Minor: Current**

**Chemistry Minor Course Requirements (29-34)**

Students selecting this minor must complete the following:

Calculus I. Satisfied by one of the following:  
MATH 115  Calculus I  
MATH 121  Calculus I  
MATH 141  Calculus I: Honors  

Calculus II. Satisfied by one of the following:  
MATH 116  Calculus II  

3-5
Chemistry Minor: New

Chemistry Minor Course Requirements (29-34)

Students selecting this minor must complete the following:

Calculus I. Satisfied by one of the following:

- MATH 115  Calculus I
- MATH 121  Calculus I
- MATH 125  Calculus I
- MATH 145  Calculus I, Honors

Calculus II. Satisfied by one of the following:

- MATH 116  Calculus II
- MATH 122  Calculus II
- MATH 126  Calculus II
- MATH 146  Calculus II, Honors

General or College Physics I. Satisfied by one of the following:

- PHSX 114  College Physics I
- PHSX 211  General Physics I
  & PHSX 216  and General Physics I Laboratory
- PHSX 213  General Physics I Honors

General or College Physics II. Satisfied by one of the following:

- PHSX 115  College Physics II
- PHSX 212  General Physics II
  & PHSX 236  and General Physics II Laboratory
- PHSX 214  General Physics II Honors

11. Changes to Existing Minor in Math

PROPOSAL

OLD Requirements for the Minor

The student must earn a grade point average of 2.0 in all mathematics courses attempted.

- **Lower-Division Preparation:** Calculus through MATH 122.
- **Upper-Division Courses:** 12 credit hours of courses numbered 300 and above (excluding MATH 365).

*Note:* Most upper-division mathematics courses have MATH 223 and/or MATH 290 as prerequisites.

Minimum Minor Requirements 18 hours

NEW Requirements for the Minor

The student must earn a grade point average of 2.0 in all mathematics courses attempted.

- **Lower-Division Preparation:** Calculus including MATH 127 or 147.
- **Upper-Division Courses:** 12 credit hours of courses numbered 300 and above (excluding MATH 365).

*Note:* Most upper-division mathematics courses have MATH 290 as prerequisite.

Minimum Minor Requirements 18 hours
JUSTIFICATION

We are changing the calculus sequence from MATH 121-122-223 to MATH 125-126-127 to facilitate transfers and improve student success. While under the old calculus sequence, students, with difficulty, could complete the minor without Vector Calculus, the redistribution of topics in the new sequence means that students must complete Calculus III to complete the minor.

EFFECTIVE: Fall 2015