I. Welcome

II. Approval of CUSA Minutes from March 11 and March 25, 2014

III. Dean’s Office Update

IV. SAS Office Update

V. Subcommittee Chair Reports
   a. Curricular Changes/Degree Requirements
      1. **Curricular Changes for Approval:**
         NEW COURSES: CHEM 201, CHEM 390, ECON 669*, GIST 320, GIST 325, HA 361, HA 362, HA 561, HA 562, HIST 359, HIST 395, HIST 585, PUAD 607, REL 511, SCUL 549, SLAV 379
         *Requesting one semester approval from CUSA pending the CAC vote for FA14 schedule
         CHANGES: AAAS 306, ATMO 521, CHEM 698, CHEM 699, GEOG 521, GEOG 554/354, GEOG 572/373, SCUL 349

      2. **Degree Requirements for Approval:**
         a. Changes to Existing Major – BA/BGS Geography
         b. Changes to Existing Major – BS Chemistry
            i. General Option
            ii. Biological Option
            iii. Chemical Physics Option
            iv. Environmental Option
         c. Changes to Existing Major – BS Atmospheric Science

      3. **KU Core Proposals**
         I. Old Business: THR 120 – Goal 2, Learning Outcome 2
         II. New Business: ENGL 341 – Goal 4, Learning Outcome 1

      4. BGS Proposal Continuing Discussion (attachment 1)
         b. Academic Standards Report
         c. Advising and Awards

VI. Adjournment
The committee met on Tuesday, March 11, 2014, at 11:15 a.m. in Room 210 Strong Hall. The following were present:
Bayer, Brumfield, Childers, Conrad, Fillian, Garibotto, Gegenheimer, Goldstein, Hilding, Jackson, Kelly, Ledom, Neidert, Rockey, Stock, Zogry
Guests: S. Montague

Welcome: Professor Neidert called the meeting to order.

Approval of CUSA Minutes: A motion was made to approve the February 25, 2014 meeting minutes of the Committee on Undergraduate Studies & Advising. The motion was seconded and passed unanimously.

Dean’s Office Update: Dr. Goldstein briefly discussed the new Academic Accelerator Program. KU is partnering with Shorelight Education in recruiting high ability international students for a unique first-year experience. The students participating in this program will enroll in Applied English classes along with many classes within the College, such as math, American studies, communication studies, social and natural studies, humanities and western civilization, and English. The students will also participate in varied cultural and community activities to obtain a broad understanding of this region. Initially the program is expected to bring in a cohort of 60 international students with expectations to continue expanding student enrollment.

Dr. Goldstein also relayed information about a proposal being submitted to the Board of Regents to develop plans for a new building that would focus on undergraduate education in the sciences. It is anticipated that it will house the undergraduate chemistry labs in addition to new lecture halls that would focus on engaged learning, and a new physics lab. This new space will be connected to a slightly remodeled Haworth where the biology labs are. This would then focus much of the undergraduate education in the sciences in one teaching commons area.

SAS Office Update: No report at this time.

Subcommittee Assignments:
A. Curricular Changes/Degree Requirements/ KU Core Proposals
   1. Curricular Changes for Approval
      Professor Conrad presented the Curricular Changes nominations. A motion was made to approve the Curricular Changes. The motion was seconded and passed unanimously.

      NEW COURSES APPROVED: DANC 290, ENGL 100, HA 101, LA&S 150, THR 120
      CHANGES APPROVED: DANC 475, DANC 550

     2. Degree Requirements for Approval
        a. Changes to Existing Major BA French – Italian Option
        b. Changes to Existing Minor – Italian
        c. Changes to Existing Major – BA Dance

     3. KU Core Proposals
        a. Professor Conrad presented the KU Core Proposals. A motion was made to approve ENGL 306 and table THR 120. The motions were seconded and passed unanimously.

     4. Recommended Policy Changes
        a. Mr. Fillian presented the following recommended policy changes: Admission to Major and Double-Counting of Courses between Majors and Minors. A motion was made to approve the recommended policy changes. Both motions were seconded and passed unanimously contingent upon the suggested changes to the Admission to Major policy.

        b. Academic Standards Report
           a. No report at this time.
c. Advising and Awards

Professor Childers reported that the committee is readying to begin reviewing scholarship and award applications. He asked that you please encourage nominations for the departmental Excellence in Undergraduate Advising Award and the new Grant Goodman Undergraduate Mentor Award, which allows students to nominate an outstanding faculty member.

CUSA members continued their discussion on the BGS degree. In considering modifying the BGS degree several questions, options and ideas were presented. A few ideas presented and questions to consider are:

- what student population is being served by the current BGS degree
- where does the BGS degree fit
- what is the philosophy behind the BGS degree
- what learning objectives are we seeking
- what are some other options for foreign language requirement:
  - sign language, linguists, programming, a culture class
- require one semester of foreign language
- what math component should be required
- changes to the CLAS 100 hour rule
- add career component courses
- add internship opportunities
- consider different and possibly more general education requirements

After a lengthy discussion considering possible changes, additions and adjustments to the current BGS degree, the Curricular Changes & Degree Requirements Subcommittee will draft a new proposal to share with CUSA members at the next meeting.

Adjournment 12:36 p.m.
COMMITTEE ON UNDERGRADUATE STUDIES AND ADVISING
Minutes of the Meeting for March 25, 2014

The committee met on Tuesday, March 25, 2014, at 11:15 a.m. in Room 210 Strong Hall. The following were present: Bayer, Bradley, Brumfield, Childers, Conrad, Fillian, Gegenheimer, Hilding, Jackson, Kelly, Neidert, Stock

Guests: J. Johnson

Welcome: Professor Neidert called the meeting to order. There was an insufficient number of CUSA members present to hold a quorum so no votes were taken during this meeting. Discussions continued on the Certificate proposal and the BGS proposal.

Approval of CUSA Minutes: N/A

Dean’s Office Update: No report at this time.

SAS Office Update: Mr. Fillian reported that 109 Strong Hall is in the process of being renovated.

Subcommittee Assignments:

B. Curricular Changes/Degree Requirements/ KU Core Proposals

1 Curricular Changes for Approval

The Curricular Changes nominations were sent out for an electronic vote. The Curricular Changes were passed with the following vote, 10 to approve, 4 did not vote

NEW COURSES APPROVED: EVRN 170, HWC 175

CHANGES APPROVED: N/A

2 Degree Requirements for Approval

N/A

3 KU Core Proposals

a. THR 120

Due to lack of a quorum, no vote took place on the KU Core Proposal.

4 Recommended Policy Changes

a. BGS Continuing Discussion. Professor Conrad presented the new BGS Proposal draft and opened up the discussion to the floor. CUSA members discussed the draft proposal point by point offering their support, suggestions and changes. Professor Neidert will incorporate the suggestions and changes discussed and will submit an updated draft of the proposal to CUSA for additional discussion and clarification. The goal for the BGS Proposal is to submit the finalized proposal to CAC during their May meeting.

b. Academic Standards Report

a. Certificate Proposal discussion. Professor Neidert began by discussing the feedback received from departments. There was some concern expressed using the term ‘certificate’ for the program and how it will impact and be impacted by current certificate programs already offered by the university and how these certificates could be differentiated. It was determined that the term ‘certificate’ was widely used and understood and should remain.

Another issue to be addressed was the maximum number of hours and the possible difficulty that the sciences may have in holding to that limit, given the labs they would require. A note will be added to the proposal that states: A minimum of 12 hours and no more than 14 required hours. Exceptions to this will be approved on a case by case basis.

It is understood that the Provost’s Office has delegated the UCCC to be the approving body for the certificate proposals. The proposals would need to be approved by CUSA, then CAC and then go to UCCC, as the representative of the Provost’s Office, for final approval.
Next steps: Further discussion at the next meeting.

c. Advising and Awards
   No report at this time.

Adjournment 12:40 p. m.
a. Curricular Changes/Degree Requirements

1. Curricular Changes for Approval/Motion to File

AFRICAN and AFRICAN AMERICAN STUDIES

CHANGE: NEW REQUEST TO CROSSLIST

AAAS 306 THE BLACK EXPERIENCE IN THE U.S. SINCE EMANCIPATION 3 H

(OLD) An interdisciplinary study of the history and culture of Black people in America from Reconstruction to the present. Topics covered include an analysis of Reconstruction, Black leaders, organizations and movements, the Harlem Renaissance, migration, and race relations. Demographic variables covered include socio-economic class, education, political persuasion, and influence by avant-garde cultural changes. LEC

AAAS 306 THE BLACK EXPERIENCE IN THE U.S. SINCE EMANCIPATION 3 H

(NEW) An interdisciplinary study of the history and culture of Black people in America from Reconstruction to the present. Topics covered include an analysis of Reconstruction, Black leaders, organizations and movements, the Harlem Renaissance, migration, and race relations. Demographic variables covered include socio-economic class, education, political persuasion, and influence by avant-garde cultural changes. (Same as HIST 359) LEC

CHEMISTRY

CHANGE: NEW COURSE

CHEM 201 LABORATORY SAFETY IN THE CHEMICAL SCIENCES 1 U

A course for undergraduate students focusing on chemical safety in modern laboratories. The course will feature practical instruction in lab safety, an introduction to safety resources, and group discussions centered around case studies. Required for all B.S. majors, and for all B.A. majors participating in undergraduate research. Students with credit in CHEM 201 may not take CHEM 701 for credit. Prerequisite: CHEM 135, CHEM 175, or CHEM 195. LEC

CHANGE: NEW COURSE

CHEM 390 TOPICS IN CHEMISTRY, HONORS: _____ 1-5 N

A course on special topics in chemistry, given as the need arises. Course content applies and expands upon general chemistry concepts, such as chemical thermodynamics, kinetics, and bonding. In this course, students gain knowledge in a topic of contemporary interest in chemistry, are challenged to examine the experimental and theoretical basis of this knowledge, and consider the broader impacts of this knowledge outside the discipline. Course may be repeated for different topics. Prerequisite: CHEM 135, CHEM 175 or CHEM 195 and membership in the University Honors Program; or permission of instructor. Each section may have additional prerequisites to be determined by the instructor. LEC

CHANGE: COURSE DESCRIPTION PREREQUISITE

CHEM 698 UNDERGRADUATE RESEARCH PROBLEMS 1-6 N

(OLD) May be repeated to accumulate a maximum of 10 credit hours. An undergraduate research course, in any of the fields of chemistry, consisting of either experimental work or the preparation of an extensive paper based on library investigation of a selected topic. A final report must be submitted to the department at the end of the semester. Open by permission of the department to those with at least 20 hours of chemistry. IND

CHEM 698 UNDERGRADUATE RESEARCH PROBLEMS 1-6 N

(NEW) May be repeated to accumulate a maximum of 10 credit hours. An undergraduate research course, in any of the fields of chemistry, consisting of experimental or theoretical work, or the preparation of an extensive paper based on library investigation of a selected topic. A final report must be submitted to the instructor at the end of the semester. Prerequisite: CHEM 201, or CHEM 201 concurrently, or documentation of appropriate laboratory safety training. IND

CHANGE: PREREQUISITE

CHEM 699 UNDERGRADUATE HONORS RESEARCH 2-6 N

(OLD) To be taken two semesters for a total of no more than 8 hours. An undergraduate research course, in any of the fields of chemistry. At the completion of the research, a written thesis, and an oral
presentation will be required. Prerequisite: Admission to Chemistry Honors Program. IND

Prerequisite:

**CHEM 699 UNDERGRADUATE HONORS RESEARCH 2-6 N**
To be taken two semesters for a total of no more than 8 hours. An undergraduate research course, in any of the fields of chemistry. At the completion of the research, a written thesis, and an oral presentation will be required. Open to students in the Chemistry Honors Program. Prerequisite: CHEM 201, or CHEM 201 concurrently, or documentation of appropriate laboratory safety training. IND

**ECONOMICS * **

**CHANGE: NEW COURSE**

**ECON 669 THE ECONOMICS OF FINANCIAL MARKETS 3 S**
This course provides an introduction to the theory of finance and its use in the understanding of the economic role of financial markets. There are two central themes: the allocation of resources over time and the allocation of resources under uncertainty. Topics may include: household saving and investment, investment projects, valuation of financial assets, choice under uncertainty, portfolio choice, and capital asset pricing. Prerequisite: ECON 520 and Econ 526.

**GEOGRAPHY**

**CHANGE: PREREQUISITE**

**ATMO 521 MICROCLIMATOLOGY 3 N**
(OLD) A study of climatic environments near the earth-atmosphere interface. Consideration of rural climates in relation to agriculture and urban climates as influenced by air pollution and other factors. Emphasis is on physical processes in the lower atmosphere, distribution of atmospheric variables, the surface energy budget and water balance.

Prerequisites: ATMO 105 and MATH 106 or MATH 121. (Same as GEOG 521) LEC

**ATMO 521 MICROCLIMATOLOGY 3 N**
(NEW) A study of climatic environments near the earth-atmosphere interface. Consideration of rural climates in relation to agriculture and urban climates as influenced by air pollution and other factors. Emphasis is on physical processes in the lower atmosphere, distribution of atmospheric variables, the surface energy budget and water balance.

Prerequisites: ATMO 105 and MATH 121. (Same as GEOG 521) LEC

**CHANGE: NEW COURSE**

**GEOG 110 GEOPOLITICS IN THE NEWS 3 S**
This course examines leading contemporary geopolitical events and processes through the lens of geography. It focuses on major political conflicts and struggles as they play out unevenly over space, contextualizing them within broader themes of neocolonialism, globalization, and the international system of nation-states. Emphasis is put on making issues commonly found in the media understandable to students by providing a relevant historical background and drawing comparisons among events.

**CHANGE: PREREQUISITE**

**GEOG 521 MICROCLIMATOLOGY 3 N**
(OLD) A study of climatic environments near the earth-atmosphere interface. Consideration of rural climates in relation to agriculture and urban climates as influenced by air pollution and other factors. Emphasis is on physical processes in the lower atmosphere, distribution of atmospheric variables, the surface energy budget and water balance.

Prerequisites: ATMO 105 and MATH 106 or MATH 121. (Same as ATMO 521) LEC

**GEOG 521 MICROCLIMATOLOGY 3 N**
(NEW) A study of climatic environments near the earth-atmosphere interface. Consideration of rural climates in relation to agriculture and urban climates as influenced by air pollution and other factors. Emphasis is on physical processes in the lower atmosphere, distribution of atmospheric variables, the surface energy budget and water balance.

Prerequisites: ATMO 105 and MATH 121. (Same as ATMO 521) LEC

**CHANGE: COURSE DESCRIPTION PREREQUISITE NUMBER**
GEOG 554  GLOBALIZATION  3  S
(OLD) This course is designed to provide a broad overview of some major facets of the economic, political, and cultural dimensions of contemporary globalization, the process by which individual regions and nations have become progressively linked to, and structured by, the world-system of states and markets, and the cultural contradictions associated with this process. Prerequisite: Any course in a social science concerned with the historical, economic, social, and political implications of a world system, such as international affairs or economics.

GEOG 354  GLOBALIZATION  3  S
(NEW) This course is designed to provide a broad overview of some major facets of the historical, economic, political, cultural, and geographical dimensions of contemporary globalization, the process by which individual regions and nations have become progressively linked to, and structured by, the world-system of states and markets, and the cultural contradictions associated with this process.

CHANGE: COURSE DESCRIPTION  PREREQUISITE NUMBER
GEOG 572  POLITICAL GEOGRAPHY  3  S
(OLD) Acquaints students with the theories and methods of political geography. Topics include geographical studies of: states, nations, and nationalism; territories and territoriality; geopolitics; and elections. Case studies from various regions of the world are included with an emphasis on the developing world. Prerequisite: GEOG 102 or consent of instructor.

GEOG 373  POLITICAL GEOGRAPHY  3  S
(NEW) Political Geography is concerned with spatial dynamics of power. It concerns issues such as territory, boundaries, and identity as well as feminist, post-colonial, geopolitical, and environmental perspectives. This class will consider the development of this subfield, the role it has played in imperial expansion, and ways in which more recent critiques have shaped political geography to be a means of understanding different forms of power and its relationship to people and places. Prerequisite: GEOG 100 or GEOG 102 or equivalent or consent of instructor.

GLOBAL AND INTERNATIONAL STUDIES

CHANGE: NEW COURSE
GIST 320  LOVE, SEX & MARRIAGE IN INDIA  3  H
This course addresses diverse aspects of the philosophies and expressions of intimacy and pleasure as found in India. Using old and new literature, including from the Kamasutra, as well as media, we examine the following: how and why in ancient times sensual pleasure was another path for ultimate bliss; how perspectives and traditions of intimacy have changed over time; diverse types of marriages; the culture and practice of arranged marriages; same-sex intimacy; and universal concepts of love.

CHANGE: NEW COURSE
GIST 325  PEOPLES & CULTURES OF SOUTH ASIA  3  S
This course provides an introduction to the diversity of peoples in South Asia, including India, Pakistan, Nepal, Bangladesh and Bhutan. The particular cultures and language of the indigenous peoples in the region are highlighted through academic sources and the direct study of reproductions of these cultures in literature and film.

HISTORY

CHANGE: NEW CROSS-LISTED COURSE
HIST 359  THE BLACK EXPERIENCE U.S. SINCE EMANCIPATION  3  H
An interdisciplinary study of the history and culture of Black people in American from Reconstruction to the present. Topics covered include an analysis of Reconstruction, Black leaders, organizations and movements, the Harlem Renaissance, migration, and race relations. Demographic variables covered include socio-economic class, education, political persuasion, and influence by avant-garde culture changes. (Same as AAAS 306) LEC

CHANGE: NEW COURSE
HIST 395  HISTORY OF SUSHI  3  H
Sushi, now served at Midwestern supermarkets and university cafeterias, reveals the transformation of an ancient Japanese dish into a global phenomenon. This course takes familiar Japanese dishes like sushi and ramen as starting points to ask how food accrues or sheds national characteristics in an age
of globalization. To learn the origin of sushi and ramen, the class traces the evolution of the diet in the context of the development of Japanese civilization. Using the methodology of food history, course assignments include short research papers on Japanese foodstuffs; analyses of primary sources from statistics to comic books to movies; and short essays drawing from participant observation of Japanese foods now available locally.

CHANGE: NEW COURSE

HIST 585 BEER, SAKE, TEA-BEVERAGES IN JAPANESE HISTORY 3 H
Sake and tea are synonymous with Japan today, but the history of beverages from water to whiskey illuminates key developments in Japanese civilization. This course makes a thematic survey of Japanese beverages introducing the place of drinks in global history before examining their distinct context in Japan. Topics include the ritual consumption of beverages as in the tea ceremony; the place of alcohol in Japanese culture; locales for consuming beverages such as bars, teahouses and coffee shops; and the Westernization of taste preferences as characterized by the introduction of beer and wine. By taking this course, students gain insight into ways that beverages contribute to Japanese culture and help shape personal and national identity. Prerequisite: Successful completion of an East Asian history or culture course number below 500 or permission of the instructor.

HISTORY OF ART

CHANGE: NEW COURSE

HA 361 BUDDHIST ART OF KOREA 3 H
Introduction to the history of Buddhist temple buildings, paintings, sculptures and illuminated hand-scrolls in Korea from the 4th through the 19th centuries, with special emphasis on their stylistic, geographical, social, devotional and literary contexts. Current theories and controversies pertinent to the history and study of Korean Buddhist art are also addressed. Not open to students who have taken HA 561 or REL 511. Work requirements will be greater for students enrolled at the 500 level than at the 300 level. Prerequisite: A college level introduction to Asian art history, or consent of instructor.

CHANGE: NEW COURSE

HA 362 CERAMICS OF KOREA 3 H
A survey covering the history of Korean ceramics from prehistoric times through the early modern period, with special emphasis on their stylistic, geographical, social and political context. Topics include celadon-glazed, stamped and slip-decorated stoneware, Korean ceramics related to the Japanese tea ceremony and Mingei pottery. Not open to students who have taken HA 562. Work requirements will be greater for students enrolled at the 500 level than at the 300 level. Prerequisite: A college level introduction to Asian art history, or consent of instructor.

CHANGE: NEW CROSS-LISTED COURSE

HA 561 BUDDHIST ART OF KOREA 3 H
Introduction to the history of Buddhist temple buildings, paintings, sculptures and illuminated hand-scrolls in Korea from the 4th through the 19th centuries, with special emphasis on their stylistic, geographical, social, devotional and literary contexts. Current theories and controversies pertinent to the history and study of Korean Buddhist art are also addressed. Not open to students who have taken HA 561. Work requirements will be greater for students enrolled at the 500 level than at the 300 level. Prerequisite: A college level introduction to Asian art history, or consent of instructor. (Same as REL 511) LEC

CHANGE: NEW COURSE

HA 562 CERAMICS OF KOREA 3 H
A survey covering the history of Korean ceramics from prehistoric times through the early modern period, with special emphasis on their stylistic, geographical, social and political context. Topics include celadon-glazed, stamped and slip-decorated stoneware, Korean ceramics related to the Japanese tea ceremony and Mingei pottery. Not open to students who have taken HA 362. Work requirements will be greater for students enrolled at the 500 level than at the 300 level. Prerequisite: A college level introduction to Asian art history, or consent of instructor. LEC

PUBLIC AFFAIRS AND ADMINISTRATION
CHANGE: NEW COURSE
PUAD 607 INTRODUCTION TO PROJECT MANAGEMENT  3  H
An exploration of the technical aspects of project management and the human aspects of project leadership. The course integrates conceptual approaches with practical applications of knowledge and skill sets. The course addresses the Project Management Body of Knowledge (PMBOK—as created by the Project Management Institute) and project leadership competencies including leading, communicating, negotiating, problem solving, and influencing. Prerequisite: Junior standing. LEC

RELIGIOUS STUDIES

CHANGE: NEW CROSS-LISTED COURSE
REL 511 BUDDHIST ART OF KOREA  3  H
Introduction to the history of Buddhist architecture, painting, sculpture and illuminated scriptures in Korea from the 4th through the 19th centuries, with particular emphasis on their stylistic, geographical, social, devotional and literary contexts. Not open to students who have taken HA 361 or HA 561. Work requirements will be greater for graduate students. Prerequisite: A college level introduction to Asian art history, or consent of instructor. (Same as HA 561) LEC

RUSSIAN, EASTERN EUROPEAN, AND EURASIAN STUDIES

CHANGE: NEW COURSE
SLAV 379 TOPICS IN: ___  1-3  H
Exploration of Slavic cultural forms such as literature, film, linguistics, arts, and press. Topics vary, and course may address topics across a narrow or broad time frame. May be repeated if content varies.

VISUAL ART

CHANGE: COURSE DESCRIPTION
SCUL 349 METAL AND GLASS CASTING  3  U
(OLD) A course in foundry techniques as related to sculpture. Both traditional and experimental procedures for casting bronze, aluminum, and iron sculpture will be explored.

SCUL 349 METALS AND GLASS CASTING  3  U
(NEW) A course in foundry techniques as related to sculpture. Both traditional and experimental procedures for casting bronze, aluminum, and iron sculpture are explored. This course is taught at the 300 and 500 levels, with additional assignments at the 500 level. Prerequisite: SCUL 253. LAB

SCUL 549 METAL AND GLASS CASTING  3  U
A course in foundry techniques as related to sculpture. Both traditional and experimental procedures for casting bronze, aluminum, and iron sculpture are explored. May be repeated for credit. This course is taught at the 300 and 500 levels, with additional assignments at the 500-level. Prerequisite: SCUL 253. LAB

2. Degree Requirements for Approval

   a. Changes to Existing Major – BA/BGS Geography

Change course number for GEOG 572 to GEOG 373.
Human Studies. Satisfied by:

GEOG 150 Environment, Culture, and Society

GEOG 352 Economic Geography

GEOG 370 Introduction to Cultural Geography
GEOG 371 Environmental Geopolitics
GEOG 375 Intermediate Human Geography
GEOG 377 Urban Geography
GEOG 379 Topics in Cultural Geography: _____
GEOG 510 Human Factors
GEOG 519 History of Cartography
GEOG 552 Topics in Urban/Economic Geography: _____
GEOG 556 Geography of the Energy Crisis
GEOG 557 Cities and Development
GEOG 570 Geography of American Indians
GEOG 571 Topics in Cultural Geography: _____
GEOG 572 GEOG 373 Political Geography
GEOG 576 Cultural Geography of the United States
GEOG 579 Geography of American Foodways
GEOG 601 Indigenous Peoples of the World
GEOG 670 Cultural Ecology
GEOG 710 Information Design
GEOG 719 Development of Geographic Thought
GEOG 751 Analysis of Regional Development
GEOG 752 Topics in Urban/Economic Geography: _____
GEOG 756 Energy Problems and the Economic-Physical Environment
GEOG 771 Topics in Cultural Geography: _____
GEOG 772 Problems in Political Geography
GEOG 775 Proseminar in Population Geography

JUSTIFICATION -
Proposed change to GEOG 572 course number requires a change in the list of Geography required elective hours.
b. Changes to Existing Major – BS Chemistry
   
i. General Option

Change to Existing Major – BS Chemistry – GENERAL OPTION

This change of major form is being submitted in conjunction with our proposal to require all B.S. Chemistry majors to take a one credit hour course on laboratory safety. For the General Chemistry option, this will increase the number of credit hours under “Chemistry Core Knowledge and Skills” from 46 to 47. The Chemistry required elective will correspondingly be reduced from 4 hours to 3 hours. Thus, the total number of required chemistry hours will remain at 50. Please note that the “Current requirements” below reflect changes to the current catalog description approved by CAC on 10 December 2013.

Current requirements for the B.S. Degree in Chemistry (General Chemistry Option):

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. Satisfied by MATH 121 or MATH 141.
- Calculus II. Satisfied by MATH 122 or MATH 142.
- Differential Equations. Satisfied by MATH 220 or MATH 320.
- Elementary Linear Algebra. Satisfied by MATH 290.
- General Physics I. Satisfied by PHSX 211 & PHSX 216, or PHSX 213.
- General Physics II. Satisfied by PHSX 212 & PHSX 236 or PHSX 214.
- Biochemistry. Satisfied by BIOL 600 or BIOL 636.

Chemistry Core Knowledge and Skills

Majors must complete courses as indicated in the following areas:

- Chemistry for the Chemical Sciences I. Satisfied by CHEM 170 or CHEM 130 or CHEM 190
- Chemistry for the Chemical Sciences II. Satisfied by CHEM 175 or CHEM 135 or CHEM 195
- Seminar I. Satisfied by CHEM 180.
- Organic Chemistry I (Lecture and Lab). Satisfied by CHEM 330 (CHEM 380) and CHEM 331.
- Organic Chemistry II (Lecture and Lab). Satisfied by CHEM 335 (CHEM 385) and CHEM 336.
- Physical Chemistry I (Lecture and Lab). Satisfied by CHEM 530 and CHEM 531.
- Physical Chemistry II (Lecture and Lab). Satisfied by CHEM 535 and CHEM 536.
- Analytical Chemistry (Lecture and Lab). Satisfied by CHEM 620 and CHEM 621.
- Instrumental Methods of Analysis (Lecture and Lab). Satisfied by CHEM 635 and CHEM 636.
- Systematic Inorganic Chemistry. Satisfied by CHEM 660.
- Advanced Inorganic Laboratory. Satisfied by CHEM 661.
- Seminar II. Satisfied by CHEM 695.

Chemistry Required Elective

Satisfied by CHEM 698 (or CHEM 699) or 700-level course.

New requirements for the B.S. Degree in Chemistry (General Chemistry Option)

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. Satisfied by MATH 121 or MATH 141.
- Calculus II. Satisfied by MATH 122 or MATH 142.
• Differential Equations. Satisfied by MATH 220 or MATH 320.
• Elementary Linear Algebra. Satisfied by MATH 290.
• General Physics I. Satisfied by PHSX 211 & PHSX 216, or PHSX 213.
• General Physics II. Satisfied by PHSX 212 & PHSX 236 or PHSX 214.
• Biochemistry. Satisfied by BIOL 600 or BIOL 636.

Chemistry Core Knowledge and Skills

Majors must complete courses as indicated in the following areas:

• Chemistry for the Chemical Sciences I. Satisfied by CHEM 170 or CHEM 130 or CHEM 190.
• Chemistry for the Chemical Sciences II. Satisfied by CHEM 175 or CHEM 135 or CHEM 195.
• Seminar I. Satisfied by CHEM 180.
• Organic Chemistry I (Lecture and Lab). Satisfied by CHEM 330 (CHEM 380) and CHEM 331.
• Organic Chemistry II (Lecture and Lab). Satisfied by CHEM 335 (CHEM 385) and CHEM 336.
• Physical Chemistry I (Lecture and Lab). Satisfied by CHEM 530 and CHEM 531.
• Physical Chemistry II (Lecture and Lab). Satisfied by CHEM 535 and CHEM 536.
• **Laboratory Safety in the Chemical Sciences. Satisfied by CHEM 201**
• Analytical Chemistry (Lecture and Lab). Satisfied by CHEM 620 and CHEM 621.
• Instrumental Methods of Analysis (Lecture and Lab). Satisfied by CHEM 635 and CHEM 636.
• Systematic Inorganic Chemistry. Satisfied by CHEM 660.
• Advanced Inorganic Laboratory. Satisfied by CHEM 661.
• Seminar II. Satisfied by CHEM 695.

Chemistry Required Elective

Satisfied by CHEM 698 (or CHEM 699) or 700-level course.

**JUSTIFICATION:**
This change of major form is being submitted in conjunction with our proposal to require all B.S. Chemistry majors to take a one credit hour course on laboratory safety.

**ii. Biological Option**

**Change to Existing Major – BS Chemistry – BIOLOGICAL OPTION**
This change of major form is being submitted in conjunction with our proposal to require all B.S. Chemistry majors to take a one credit hour course on laboratory safety. For the Biological Chemistry Option, this will increase the number of credit hours under “Chemistry Core Knowledge and Skills” from 46 to 47. The Chemistry required elective will correspondingly be reduced from 4 hours to 3 hours. Thus, the total number of required Chemistry hours will remain at 50. Please note that the "Current requirements" below reflect changes to the current catalog description approved by CAC on 10 December 2013.

**Current requirements for the B.S. Degree in Chemistry (Biological Chemistry Option):**

**Biological Chemistry Option**

This option is available to students interested in the biological applications of chemistry. The curriculum is compatible with many pre-health-professions programs and prepares the student for graduate study or career opportunities.

**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. Satisfied by MATH 121 or MATH 141.
• Calculus II. Satisfied by MATH 122 or MATH 142.
• Differential Equations. Satisfied by MATH 220 or MATH 320.
Chemistry Core Knowledge and Skills

Majors must complete courses as indicated in the following areas:

- Chemistry for the Chemical Sciences I. Satisfied by CHEM 170 or CHEM 130 or CHEM 190.
- Chemistry for the Chemical Sciences II. Satisfied by CHEM 175 or CHEM 135 or CHEM 195.
- Seminar I. Satisfied by CHEM 180.
- Organic Chemistry I (Lecture and Lab). Satisfied by CHEM 330 (CHEM 380) and CHEM 331.
- Organic Chemistry II (Lecture and Lab). Satisfied by CHEM 335 (CHEM 385) and CHEM 336.
- Physical Chemistry I (Lecture and Lab). Satisfied by CHEM 530 and CHEM 531.
- Physical Chemistry II (Lecture and Lab). Satisfied by CHEM 535 and CHEM 536.
- Analytical Chemistry (Lecture and Lab). Satisfied by CHEM 620 and CHEM 621.
- Instrumental Methods of Analysis (Lecture and Lab). Satisfied by CHEM 635 and CHEM 636.
- Systematic Inorganic Chemistry. Satisfied by CHEM 660.
- Advanced Inorganic Laboratory. Satisfied by CHEM 661.
- Seminar II. Satisfied by CHEM 695.

Chemistry Required Elective

Satisfied by CHEM 698 (or CHEM 699) or 700-level course.

Biological Chemistry Core Knowledge and Skills

- Principles of Molecular and Cellular Biology. Satisfied by BIOL 150.
- Biochemistry. Satisfied by BIOL 636 and BIOL 638.
- Biochemistry Laboratory. Satisfied by BIOL 637.

Biological Chemistry Required Electives

Majors choosing this option should select 1 elective (3 hours) from BIOL 350, BIOL 400, or BIOL 416.

New requirements for the B.S. Degree in Chemistry (Biological Chemistry Option)

Biological Chemistry Option

This option is available to students interested in the biological applications of chemistry. The curriculum is compatible with many pre-health-professions programs and prepares the student for graduate study or career opportunities.

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. Satisfied by MATH 121 or MATH 141.
- Calculus II. Satisfied by MATH 122 or MATH 142.
- Differential Equations. Satisfied by MATH 220 or MATH 320.
- Elementary Linear Algebra. Satisfied by MATH 290.
- General Physics I. Satisfied by PHSX 211 & PHSX 216, or PHSX 213.
- General Physics II. Satisfied by PHSX 212 & PHSX 236 or PHSX 214.

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

- Chemistry for the Chemical Sciences I. Satisfied by CHEM 170 or CHEM 130 or CHEM 190.
- Chemistry for the Chemical Sciences II. Satisfied by CHEM 175 or CHEM 135 or CHEM 195.
- Seminar I. Satisfied by CHEM 180.
- Organic Chemistry I (Lecture and Lab). Satisfied by CHEM 330 or CHEM 380 and CHEM 331.
- Organic Chemistry II (Lecture and Lab). Satisfied by CHEM 335 or CHEM 385 and CHEM 336.
- Physical Chemistry I (Lecture and Lab). Satisfied by CHEM 530 and CHEM 531.
- Physical Chemistry II (Lecture and Lab). Satisfied by CHEM 535 and CHEM 536.
- Laboratory Safety in the Chemical Sciences. Satisfied by CHEM 201.
- Analytical Chemistry (Lecture and Lab). Satisfied by CHEM 620 and CHEM 621.
- Instrumental Methods of Analysis (Lecture and Lab). Satisfied by CHEM 635 and CHEM 636.
- Systematic Inorganic Chemistry. Satisfied by CHEM 660.
- Advanced Inorganic Laboratory. Satisfied by CHEM 661.
- Seminar II. Satisfied by CHEM 695.

Chemistry Required Elective

Satisfied by CHEM 698 or CHEM 699 or 700-level course.

Biological Chemistry Core Knowledge and Skills

- Principles of Molecular and Cellular Biology. Satisfied by BIOL 150.
- Biochemistry. Satisfied by BIOL 636 and BIOL 638.
- Biochemistry Laboratory. Satisfied by BIOL 637.

Biological Chemistry Required Electives

Majors choosing this option should select 1 elective (3 hours) from BIOL 350, BIOL 400, or BIOL 416.

JUSTIFICATION

This change of major form is being submitted in conjunction with our proposal to require all B.S. Chemistry majors to take a one credit hour course on laboratory safety.

iii. Chemical Physics Option

Change to Existing Major – BS Chemistry – CHEMICAL PHYSICS OPTION

This change of major form is being submitted in conjunction with our proposal to require all B.S. Chemistry majors to take a one credit hour course on laboratory safety. For the Chemical Physics option, this will increase the number of credit hours under “Chemistry Core Knowledge and Skills” from 46 to 47. Please note that the “Current requirements” below reflect changes to the current catalog description approved by CAC on 10 December 2013. Please also note that the proposed changes include a correction to a typographical error, replacing the title “Chemistry Physics Knowledge and Skills” with “Chemical Physics Knowledge and Skills.”

Current requirements for the B.S. Degree in Chemistry (Chemical Physics Option):

Chemical Physics Option

This option allows students to focus on the theoretical basis of chemistry. Students are prepared for graduate programs or employment.

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. Satisfied by MATH 121 or MATH 141.
• Calculus II. Satisfied by MATH 122 or MATH 142.
• Differential Equations. Satisfied by MATH 220 or MATH 320.
• Elementary Linear Algebra. Satisfied by MATH 290.
• General Physics I. Satisfied by PHSX 211 & PHSX 216, or PHSX 213.
• General Physics II. Satisfied by PHSX 212 & PHSX 236 or PHSX 214.
• Biochemistry. Satisfied by BIOL 600 or BIOL 636.

Chemistry Core Knowledge and Skills

Majors must complete courses as indicated in the following areas:

• Chemistry for the Chemical Sciences I. Satisfied by CHEM 170 or CHEM 130 or CHEM 190
• Chemistry for the Chemical Sciences II. Satisfied by CHEM 175 or CHEM 135 or CHEM 195
• Seminar I. Satisfied by CHEM 180.
• Organic Chemistry I (Lecture and Lab). Satisfied by CHEM 330 (CHEM 380) and CHEM 331.
• Organic Chemistry II (Lecture and Lab). Satisfied by CHEM 335 (CHEM 385) and CHEM 336.
• Physical Chemistry I (Lecture and Lab). Satisfied by CHEM 530 and CHEM 531.
• Physical Chemistry II (Lecture and Lab). Satisfied by CHEM 535 and CHEM 536.
• Analytical Chemistry (Lecture and Lab). Satisfied by CHEM 620 and CHEM 621.
• Instrumental Methods of Analysis (Lecture and Lab). Satisfied by CHEM 635 and CHEM 636.
• Systematic Inorganic Chemistry. Satisfied by CHEM 660.
• Advanced Inorganic Laboratory. Satisfied by CHEM 661.
• Seminar II. Satisfied by CHEM 695.

Chemistry Physics Core Knowledge and Skills

Majors must complete 2 courses from each of the following groups:

Group I. Satisfied by

• PHSX 313 General Physics III (3) N
• PHSX 316 Intermediate Physics Laboratory I (1) U (PHSX 313 and PHSX 316 should be taken concurrently)
• PHSX 518 Mathematical Physics (3) N
• PHSX 521 Mechanics I (3) N
• PHSX 615 Numerical and Computational Methods in Physics (3) N
• PHSX 623 Physics of Fluids (3) N
• PHSX 655 Optics (3) N
• PHSX 681 Concepts in Solids (3) N

Group II. Satisfied by

• PHSX 531 Electricity and Magnetism (3) N
• PHSX 621 Mechanics II (3) N
• MATH 646 Complex Variable and Applications (3) N
• MATH 647 Applied Partial Differential Equations (3) N
• CHEM 698 Undergraduate Research Problems
• CHEM 750 Quantum Chemistry and Spectroscopy (3)
• CHEM 752 Statistical Thermodynamics (3)

New requirements for the B.S. Degree in Chemistry (Chemical Physics Option)
Chemical Physics Option

This option allows students to focus on the theoretical basis of chemistry. Students are prepared for graduate programs or employment.

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. Satisfied by MATH 121 or MATH 141.
- Calculus II. Satisfied by MATH 122 or MATH 142.
- Differential Equations. Satisfied by MATH 220 or MATH 320.
- Elementary Linear Algebra. Satisfied by MATH 290.
- General Physics I. Satisfied by PHSX 211 & PHSX 216, or PHSX 213.
- General Physics II. Satisfied by PHSX 212 & PHSX 236 or PHSX 214.
- Biochemistry. Satisfied by BIOL 600 or BIOL 636.

Chemistry Core Knowledge and Skills

Majors must complete courses as indicated in the following areas:

- Chemistry for the Chemical Sciences I. Satisfied by CHEM 170 or CHEM 130 or CHEM 190.
- Chemistry for the Chemical Sciences II. Satisfied by CHEM 175 or CHEM 135 or CHEM 195.
- Seminar I. Satisfied by CHEM 180.
- Organic Chemistry I (Lecture and Lab). Satisfied by CHEM 330 (CHEM 380) and CHEM 331.
- Organic Chemistry II (Lecture and Lab). Satisfied by CHEM 335 (CHEM 385) and CHEM 336.
- Physical Chemistry I (Lecture and Lab). Satisfied by CHEM 530 and CHEM 531.
- Physical Chemistry II (Lecture and Lab). Satisfied by CHEM 535 and CHEM 536.
- Laboratory Safety in the Chemical Sciences. Satisfied by CHEM 201.
- Analytical Chemistry (Lecture and Lab). Satisfied by CHEM 620 and CHEM 621.
- Instrumental Methods of Analysis (Lecture and Lab). Satisfied by CHEM 635 and CHEM 636.
- Systematic Inorganic Chemistry. Satisfied by CHEM 660.
- Advanced Inorganic Laboratory. Satisfied by CHEM 661.
- Seminar II. Satisfied by CHEM 695.

Chemical Physics Core Knowledge and Skills

Majors must complete 2 courses from each of the following groups:

Group I. Satisfied by

- PHSX 313 General Physics III (3) N
- PHSX 316 Intermediate Physics Laboratory I (1) U (PHSX 313 and PHSX 316 should be taken concurrently)
- PHSX 518 Mathematical Physics (3) N
- PHSX 521 Mechanics I (3) N
- PHSX 615 Numerical and Computational Methods in Physics (3) N
- PHSX 623 Physics of Fluids (3) N
- PHSX 655 Optics (3) N
- PHSX 681 Concepts in Solids (3) N

Group II. Satisfied by

- PHSX 531 Electricity and Magnetism (3) N
- PHSX 621 Mechanics II (3) N
• **MATH 646** Complex Variable and Applications (3) N
• **MATH 647** Applied Partial Differential Equations (3) N
• **CHEM 698** Undergraduate Research Problems
• **CHEM 750** Quantum Chemistry and Spectroscopy (3)
• **CHEM 752** Statistical Thermodynamics (3)

**JUSTIFICATION**
This change of major form is being submitted in conjunction with our proposal to require all B.S. Chemistry majors to take a one credit hour course on laboratory safety.

iv. Environmental Option

**Change to Existing Major – BS Chemistry – ENVIRONMENTAL OPTION**

This change of major form is being submitted in conjunction with our proposal to require all B.S. Chemistry majors to take a one credit hour course on laboratory safety. For the Environmental Chemistry option, this will increase the number of credit hours under “Chemistry Core Knowledge and Skills” from 44 to 45. *Please note that the “Current requirements” below reflect changes to the current catalog description approved by CAC on 10 December 2013.*

**Current requirements for the B.S. Degree in Chemistry (Environmental Chemistry Option):**

**Environmental Chemistry Option**

This option allows students to focus on environmental issues and to understand how chemistry may be applied to environmental problems. Students are prepared for graduate programs or employment.

**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. Satisfied by **MATH 121** or **MATH 141**.
- Calculus II. Satisfied by **MATH 122** or **MATH 142**.
- Differential Equations. Satisfied by **MATH 220** or **MATH 320**.
- Elementary Linear Algebra. Satisfied by **MATH 290**.
- General Physics I. Satisfied by **PHSX 211** & **PHSX 216**, or **PHSX 213**.
- General Physics II. Satisfied by **PHSX 212** & **PHSX 236** or **PHSX 214**.

**Chemistry Core Knowledge and Skills**

Majors must complete courses as indicated in the following areas:

- Chemistry for the Chemical Sciences I. Satisfied by **CHEM 170** or **CHEM 130** or **CHEM 190**.
- Chemistry for the Chemical Sciences II. Satisfied by **CHEM 175** or **CHEM 135** or **CHEM 195**.
- Seminar I. Satisfied by **CHEM 180**.
- Organic Chemistry I (Lecture and Lab). Satisfied by **CHEM 330** (**CHEM 380**) and **CHEM 331**.
- Organic Chemistry II (Lecture and Lab). Satisfied by **CHEM 335** (**CHEM 385**) and **CHEM 336**.
- Physical Chemistry I (Lecture and Lab). Satisfied by **CHEM 530** and **CHEM 531**.
- Physical Chemistry II (Lecture and Lab). Satisfied by **CHEM 535** and **CHEM 536**.
- Analytical Chemistry (Lecture and Lab). Satisfied by **CHEM 620** and **CHEM 621**.
- Instrumental Methods of Analysis (Lecture and Lab). Satisfied by **CHEM 635** and **CHEM 636**.
- Systematic Inorganic Chemistry. Satisfied by **CHEM 660**.
- Seminar II. Satisfied by **CHEM 695**.

Majors choosing this option should select 2 electives (6 hours) from each of the following groups:
Environmental Chemistry Option Group I

- **BIOL 100** Principles of Biology (3) or **BIOL 150** Principles of Molecular and Cellular Biology (4)
- **EVRN 148** Scientific Principles of Environmental Studies (3)
- **GEOG 304** Environmental Conservation (3)
- **GEOL 351** Environmental Geology (3)
- **BIOL 400** Fundamentals of Microbiology (3)
- **BIOL 600** Introductory Biochemistry, Lectures (4)
- **BIOL 414** Principles of Ecology (3)
- **ATMO 105** Introductory Meteorology (5)

Environmental Chemistry Option Group II

- **BIOL 661** Ecology of Rivers and Lakes (with or without **BIOL 662** Aquatic Ecology Laboratory) (3-5)
- **CE 477** Introduction to Environmental Engineering and Science (3)
- **GEOL 552** Introduction to Hydrogeology (3)
- **ATMO 525** Air Pollution Meteorology (3)
- **EVRN 611** Water Quality, Land Use, and Watershed Ecosystems (3)
- **CHEM 698** Undergraduate Research Problems (3)

All 4 courses chosen from Groups I and II may not be in the same department or division.

**New requirements for the B.S. Degree in Chemistry (Environmental Chemistry Option)**

**Environmental Chemistry Option**

This option allows students to focus on environmental issues and to understand how chemistry may be applied to environmental problems. Students are prepared for graduate programs or employment.

**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. Satisfied by **MATH 121** or **MATH 141**.
- Calculus II. Satisfied by **MATH 122** or **MATH 142**.
- Differential Equations. Satisfied by **MATH 220** or **MATH 320**.
- Elementary Linear Algebra. Satisfied by **MATH 290**.
- General Physics I. Satisfied by **PHSX 211** & **PHSX 216**, or **PHSX 213**.
- General Physics II. Satisfied by **PHSX 212** & **PHSX 236** or **PHSX 214**.

**Chemistry Core Knowledge and Skills**

Majors must complete courses as indicated in the following areas:

- Chemistry for the Chemical Sciences I. Satisfied by **CHEM 170** or **CHEM 130** or **CHEM 190**.
- Chemistry for the Chemical Sciences II. Satisfied by **CHEM 175** or **CHEM 135** or **CHEM 195**.
- Seminar I. Satisfied by **CHEM 180**.
- Organic Chemistry I (Lecture and Lab). Satisfied by **CHEM 330** (CHEM 380) and **CHEM 331**.
- Organic Chemistry II (Lecture and Lab). Satisfied by **CHEM 335** (CHEM 385) and **CHEM 336**.
- Physical Chemistry I (Lecture and Lab). Satisfied by **CHEM 530** and **CHEM 531**.
- Physical Chemistry II (Lecture and Lab). Satisfied by **CHEM 535** and **CHEM 536**.
- **Laboratory Safety in the Chemical Sciences. Satisfied by CHEM 201**
- Analytical Chemistry (Lecture and Lab). Satisfied by **CHEM 620** and **CHEM 621**.
- Instrumental Methods of Analysis (Lecture and Lab). Satisfied by **CHEM 635** and **CHEM 636**.
Majors choosing this option should select 2 electives (6 hours) from each of the following groups:

**Environmental Chemistry Option Group I**

- **BIOL 100** Principles of Biology (3) or **BIOL 150** Principles of Molecular and Cellular Biology (4)
- **EVRN 148** Scientific Principles of Environmental Studies (3)
- **GEOG 304** Environmental Conservation (3)
- **GEOL 351** Environmental Geology (3)
- **BIOL 400** Fundamentals of Microbiology (3)
- **BIOL 600 Introductory Biochemistry, Lectures (4)**
- **BIOL 414** Principles of Ecology (3)
- **ATMO 105** Introductory Meteorology (5)

**Environmental Chemistry Option Group II**

- **BIOL 661** Ecology of Rivers and Lakes (with or without **BIOL 662** Aquatic Ecology Laboratory) (3-5)
- **CE 477** Introduction to Environmental Engineering and Science (3)
- **GEOL 552** Introduction to Hydrogeology (3)
- **ATMO 525** Air Pollution Meteorology (3)
- **EVRN 611** Water Quality, Land Use, and Watershed Ecosystems (3)
- **CHEM 698 Undergraduate Research Problems (3)**

All 4 courses chosen from Groups I and II may not be in the same department or division.

**JUSTIFICATION**
This change of major form is being submitted in conjunction with our proposal to require all B.S. Chemistry majors to take a one credit hour course on laboratory safety.

c. **Changes to Existing Major – BS Atmospheric Science**

**Change to Existing Major – BS Atmospheric Science**

Two changes are requested.
1. – to remove COMS 330 from the communication requirement.
2. – to add GEOG 358 to the prerequisite/co-requisite knowledge section of the degree.

**BS Degree in Atmospheric Science**

1. – remove COMS 330 as a requirement.

**Current Requirement:**
Communication - Core Skills and Critical Inquiry. Satisfied by: Completing **COMS 330** and **COMS 130, COMS 131 (Honors)**, or **COMS 150**.

**New Requirement:**
Communication – Core Skills and Critical Inquiry. Satisfied by: Completing COMS 130, COMS 131 (Honors), or COMS 150.

2. – add GEOG 358 as a prerequisite/co-requisite.

Current Requirements:
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 & PHSX 216, or PHSX 213.
- General Physics II. Satisfied by PHSX 212 & PHSX 236, or PHSX 214.
- Foundations of Chemistry I. Satisfied by CHEM 130 or CHEM 190.
- 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.

New Requirements:
Add:
- Geographic Information Systems. Satisfied by GEOG 358.

JUSTIFICATION
1. We decided that the additional course of COMS 330 is no longer necessary because the current requirements of COMS 130 or 150 and the two English courses satisfy the goals of the program. Dropping COMS 330 would be the most beneficial for the students.
2. GEOG 358 covers computer-based analysis of spatial data through problem-solving activities using spatial analytical techniques. It is a natural fit with the core classes of atmospheric science since much of the analysis is spatial (e.g., weather maps and climate data). Recent graduates who have taken this course as an elective gained experience and skills related to GIS software that were very attractive to employers and consequently had more job opportunities. This change was also encouraged by discussion at the last UCAR annual meeting that revealed more and more atmospheric science programs are incorporating GIS into their curriculum.

3. KU Core Proposals

   I. Old Business - THR 120 – Goal 2, Learning Outcome 2

<table>
<thead>
<tr>
<th>Name *</th>
<th>Mechele Leon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email *</td>
<td><a href="mailto:mleon@ku.edu">mleon@ku.edu</a></td>
</tr>
<tr>
<td>Preferred Phone Number *</td>
<td>(785) 864-2062</td>
</tr>
<tr>
<td>Submitting School/College *</td>
<td>CLAS (SOTA)</td>
</tr>
<tr>
<td>Submitting Department *</td>
<td>Theatre</td>
</tr>
<tr>
<td>Has the</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>department</strong> approved the nomination of this course to the KU Core? *</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
</tr>
<tr>
<td><strong>Name of person giving departmental approval:</strong> Mechele Leon</td>
<td></td>
</tr>
<tr>
<td><strong>Date of departmental approval:</strong> Thursday, February 6, 2014</td>
<td></td>
</tr>
<tr>
<td><strong>Course Title:</strong> Public Speaking as Performance</td>
<td></td>
</tr>
<tr>
<td><strong>Course Subject Code and Number:</strong> THR 120 (New)</td>
<td></td>
</tr>
<tr>
<td><strong>Current Course Description</strong></td>
<td></td>
</tr>
<tr>
<td><em>(Proposed new course THR 120)</em>: This course offers students a unique embodied approach to public speaking. Students will compose and deliver presentations. Theatre games, improvisational techniques, and vocal exercises will help students gain awareness of how mind, body, and speech interrelate. Students will learn to manage performance anxiety, organize a narrative, speak extemporaneously and articulate clearly. Texts used in acting training will supplement a public speaking textbook. Through a combination of speech assignments and theatre exercises, this course will teach students to generate, explore, organize, interpret, and express ideas orally; to use language and media to express ideas clearly and confidently; and integrate body and mind to serve speaking needs in a variety of contexts and across social, cultural, and disciplinary boundaries.</td>
<td></td>
</tr>
<tr>
<td><strong>Do all instructors of this course agree to include content that enables students to meet KU Core learning outcome(s)?</strong> *</td>
<td></td>
</tr>
<tr>
<td><strong>Yes</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Do all instructors of</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Yes</strong></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Is the course cross-listed? *</td>
<td>No</td>
</tr>
<tr>
<td>List any cross-listing and/or honors courses associated with the course you are nominating. Please specifically note when approval was given and who gave approval in the other department(s). *</td>
<td>Not cross-listed.</td>
</tr>
<tr>
<td>Do all cross-listed departments and honors program partners agree to develop and save direct evidence that students have met the learning outcomes(s)?</td>
<td>Yes</td>
</tr>
<tr>
<td>Is the course also a degree requirement? *</td>
<td>No</td>
</tr>
</tbody>
</table>
Does the course require any prerequisites? *

No

Provide an abstract (1000 characters maximum) that summarizes how this course meets the learning outcome. *

This course engages theory and practice derived from theatre and acting training merged with established techniques and goals of public speaking to create a unique embodied approach to strengthening oral communication. Successful students will acquire the fundamental skill of conveying ideas orally by learning to compose and deliver compelling, coherent, and visually interesting presentations. Clear and confident communication skills will be developed using theatre games, improvisational techniques, and vocal exercises to help students gain awareness of how mind, body, and speech interrelate. Through a combination of speech assignments, theoretical readings, and theatre exercises, this course will teach students to generate, explore, organize, interpret, and express ideas orally; to use language and media to express ideas clearly and confidently; and integrate body and mind to serve speaking needs in a variety of contexts and across social, cultural, and disciplinary boundaries.

1. State how your course or educational experience will include instruction in how to: (Please limit responses to 1000 characters.)

a) Apply theory in the preparation and presentation of content in an organized manner and with a delivery appropriate to the audience.

b) Engage in active listening and participate in discussions in a respectful manner.

c) Analyze their own communicative behaviors in both interpersonal and public speaking. *

Students will combine acting and communication theory in preparing & presenting content in a clear and organized way for a given audience. Course lectures will be interactive and include examples of effective and ineffective speech. Assignments will help students develop a critical vocabulary to identify presentations in specific contexts. Students will work in peer review groups where they will be responsible for applying theory acquired though reading and practice. Students will learn different modes of listening (active, passive, interpretive, empathic, etc.) and practice them in exercises drawn from acting games. The actor develops self-awareness through self-critique, feedback, and reflection. In this course, students will use similar tools. Peer to peer critical feedback will be required. Actors learn about audiences by being audiences for each other. In this course, students will serve as the “intended audience” for each speech performance exercise.

2. State what assignments, readings, class discussion, and lectures will be structured so that students complete at least three different types of speeches or presentations in English with different purposes or audiences. (Please limit responses to 1000 characters.) *

Students will complete three major speeches during the class: informative; persuasive; ceremonial in addition to several minor presentations that together will build their skills in manuscript, extemporaneous and impromptu modes. These presentations will be sequenced for the working process. For example, students will be learning how to create an outline very early in the term, thereby allowing them to apply it to each of their speeches. Theatre training is built on teaching actors to understand given circumstances. The course will use such techniques help students explore the nature of the
3. State how your course will deliver structured feedback to students that leads to revision and substantial improvement. (Please limit responses to 1000 characters.) *

Structured feedback is a foundation of this course. Oral communication is exhibited and practiced by constructively sharing ideas and responding to one another’s work. Students will be divided into groups for the purpose of helping each other plan, research, and execute a given speech. Group learning is vital to creating an atmosphere of active learning, mutual trust, and peer evaluation. We will complement these breakout groups with larger discussions following student presentations. Students will learn to share thoughts and criticism of each other’s work in a respectful and constructive manner. Students will receive both instructor commentaries about how they can improve their performance, continue in areas in which they excel, etc., as well as peer feedback according to a pre-determined rubric. Modeling peer review journals, students can “revise and resubmit” their work to the class in appointed times in the syllabus to track their progress and acquisition of desired skill sets.

4. State how you will evaluate the quality of students’ oral communication, and how you will use this evaluation for a supermajority (greater than or equal to 60%) of the final course grade. (Please limit responses to 1000 characters.) *

We will adapt a work sheet from the KU Core Educational goals that will allow us to chart outcomes on the scale defined as “4- Exceeds expectations” to 1 “unacceptable”. Students will receive this feedback cumulatively over the semester so that they can identify opportunities to improve in relationship to professor feedback on written, live, and recorded work.

SYLLABUS TEXT:
THR 210 (I assume this is a typo as THR 210 is a different, current course)
Public Speaking as Performance
A detailed syllabus for this course does not yet exist. If THR 120 is approved by CUSA, the syllabus will be developed over the next six months (in preparation for Spring 2015) by the group of theatre faculty who have worked together to craft this proposal and who will implement and supervise the course.

Description
This course offers students a unique embodied approach to acquiring the fundamental skills of public speaking. Students will learn to compose and deliver oral presentations in
manuscript, extemporaneous, and impromptu modes while completing three major presentations adaptable to different communication contexts: informative, persuasive, and ceremonial. Theatre games, improvisational techniques and vocal exercises will be employed to help students gain a powerful awareness of how mind, body, and speech interrelate to render a performance—recognizing that public speaking is closely aligned with performance. Student will learn techniques to manage performance anxiety, develop and organize ideas, acquire confidence with extemporaneous speech, and speak with distinction. Such texts as Patsy Rodenburg’s The Right to Speak: Working with the Voice (Routledge, 1993) and Viola Spolin’s Theater Games for the Classroom (Northwestern University Press, 1986) will supplement the use of a conventional public speaking text (e.g., Lucas, The Art of Public Speaking, McGraw-Hill, 2011). This course will teach students to master a subset of related skills, such as becoming an active listener, enhancing analytical reasoning, and learning how to organize ideas and research into oral communication. Through this combination of presentation assignments, theoretical readings, theatre exercises, and low and high stakes writing, this course will teach students to generate, explore, organize, interpret, and express ideas orally; to use language and supporting media to express ideas clearly and confidently; and to integrate body and mind to serve the needs of public speaking in a variety of professional contexts and across social, cultural, and disciplinary boundaries.

**Justification**

Theatre is poised to contribute to the KU Core goal of strengthening oral communication. It’s natural we do so: theatre and oral communication have a long history of partnership in higher education founded on the common ground of language, expressivity, orality, and rhetoric. In fact, like many theatre departments around the country, KU’s Department of Theatre traces its roots to the Department of Speech and Dramatic Art inaugurated in 1923. Taught by experienced theatre faculty and graduate teaching assistants from our nationally ranked Ph.D. program, THR 120 will meet the oral competency learning outcomes of core goal #2 by merging proven strategies for teaching oral communication with theories and skills native to performance training. In addition to teaching fundamental techniques of preparing organized and compelling speech content with appropriate supporting material appropriate for different audiences and occasions, THR 120 will apply theory from acting training to explore body and voice as technical instruments that can be trained to deliver clear, poised, confident, and effective oral communication. Through engaged classroom exercises and presentations, students will enhance their listening skills, learn how to manage tension of the voice and body, identify an affective awareness of body language, overcome anxiety, and embrace improvisation and spontaneity to engage an audience. Specific vocal work in the course will focus on tone, variety of pitch, articulation as well as inferred meaning. Specific bodywork includes focus on developing techniques of eye contact, posture, embodied gesture and overall expressiveness. Utilizing individual and group exercises drawn from acting theory, classic and contemporary rhetoric, actor movement, and voice techniques, students will develop skills sets that will enable them to identify strategies to write and perform speeches for general and targeted audiences across social, cultural, and disciplinary boundaries. By identifying supporting evidence for claims and articulating ideas through specific language choices and coherent organization, students will learn to exhibit confidence, control and mastery of topics before an audience. THR 120 will marry the skills of acting training to the rigorous instruction of public speaking, not merely to convey the skills of giving a speech, but to help students to embrace the experience of creating shared communication between a speaker and her audience.

II. New Business – ENGL 341 – Goal 4, Learning Outcome 1

<p>| Name * | Katie Conrad |
| Email * | <a href="mailto:kconrad@ku.edu">kconrad@ku.edu</a> |</p>
<table>
<thead>
<tr>
<th><strong>Preferred Phone Number</strong></th>
<th>(785) 864-2572</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Submitting School/College</strong></td>
<td>CLAS</td>
</tr>
<tr>
<td><strong>Submitting Department</strong></td>
<td>ENGLISH</td>
</tr>
<tr>
<td><strong>Has the department approved the nomination of this course to the KU Core?</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Name of person giving departmental approval:</strong></td>
<td>Anna Neill</td>
</tr>
<tr>
<td><strong>Date of departmental approval:</strong></td>
<td>Tuesday, September 17, 2013</td>
</tr>
<tr>
<td><strong>Course Title:</strong></td>
<td>American Literature of Social Justice</td>
</tr>
<tr>
<td><strong>Course Subject Code and Number:</strong></td>
<td>ENGL 341</td>
</tr>
<tr>
<td><strong>Current Course Description</strong></td>
<td>An examination of U.S. literature that addresses situations of political and economic oppression or repression with the potential function of enlisting readers’ sympathies in a project of social justice. The course focuses on U.S. literary texts dealing with social injustice and the curtailment of human and civil rights and addresses debates surrounding cultural authority and authenticity, identity politics, attempts to represent the voice of the “oppressed,” revision of strategies used in slave narrative or in testimonio, and ethical and rhetorical appeals to an assumed readership. Prerequisite: Prior completion of the KU Core Written Communication requirement. Recommended: Prior completion of one 200-level English course.</td>
</tr>
<tr>
<td><strong>Do all</strong></td>
<td>Yes</td>
</tr>
<tr>
<td>Question</td>
<td>Yes/No</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Do all instructors of this course agree to include content that enables students to meet KU Core learning outcome(s)? *</td>
<td></td>
</tr>
<tr>
<td>Is the course cross-listed? *</td>
<td></td>
</tr>
<tr>
<td>List any cross-listing and/or honors courses associated with the course you are nominating. Please specifically note when approval was given and who gave approval in the other department(s). *</td>
<td>none</td>
</tr>
<tr>
<td>Do all cross-listed</td>
<td></td>
</tr>
</tbody>
</table>
departments and honors program partners agree to develop and save direct evidence that students have met the learning outcomes(s)?

Is the course also a degree requirement?  

Yes

Does the course require any prerequisites?  

Yes

If yes, please list the prerequisites:  

Completion of Core Goal 2.1

Provide an abstract (1000 characters maximum) that summarizes how this course meets the learning outcome.  

Our primary goal in this course is to develop a basic understanding of some of the central issues in literature that treats themes of social justice and human and civil rights in the United States. Students will read a variety of texts and genres that treat these issues, engage in classroom and online discussion, take examinations that focus on these texts and ideas, and write reflective analytical essays; in so doing, they will emerge with a rich sense of the diversity of human experience in the 19th through 21st centuries in the United States.

1. State what assignments, readings, class discussion, and lectures will devote a majority of course content to ensure student understanding of basic human diversity within the United States, such as biological, cultural, historical, linguistic, social, economic, sexual, and ideological diversity. (Please limit responses to 1000 characters.)

This class will examine primarily U.S. literature, including fiction, drama, autobiography, and narrative journalism, which has addressed situations of political and economic oppression or repression with the potential function of
enlisting readers’ sympathies in a project of social justice. This aim was quite clear in the antebellum slave narratives, as well as in novels like Uncle Tom's Cabin. This class will read examples of 20th and 21st-century literary texts dealing with social injustice and the curtailment of human and civil rights (including an autobiography about Jim Crow-era segregation, a recent novel about a Sudanese refugee, and a non-fictional account of fourteen men who died in the Arizona desert in 2001 while trying to cross the border). In so doing, we explicitly deal with the diversity of human experience in the United States.

2. Explain how your course or educational experience will generate discussion among students, leading to examination of students’ own value assumptions in the context of various value systems within the United States. (Please limit responses to 1000 characters.) * We will address vexed debates surrounding cultural authority and authenticity, identity politics, attempts to represent the voice of the "oppressed," revision of strategies used in slave narrative or in testimonio, and ethical and rhetorical appeals to an assumed readership. The course is discussion-based, and inevitably and explicitly leads students to engage with their own beliefs and values and set them in dialogue with those of others.

3. Detail how your course or educational experience will integrate other-cultural readings and academic research on cultural competency to define and analyze issues and other- In addition to the primary texts discussed in class, there are a number of assigned secondary texts that help students engage critically with these issues (e.g., Alcoff, "The Problem of Speaking for Others," Nance, Can Literature Promote Justice; Apostolidis, "Hegemony and Hamburger: Migration Narratives and Democratic Unionism among Mexican Meatpackers in the U.S. West").
cultural key words and concepts, and practices within the United States. (Please limit responses to 1000 characters.) *

4. State what assignments, readings, class discussion, and lectures your course or educational experience will use to evaluate student work that documents and measures their grasp of diverse cultures and value systems within the United States through reflective written or oral analysis. (Please limit responses to 1000 characters.) *

By the end of this course, students should be able to:

• Understand some of the central scholarly issues and debates in the study of literature dealing with themes of social justice
• Perceive the interrelation between literature, culture, and society
• Read literary texts through a cultural studies framework
• Understand literature as a powerful agent, as well as reactor, in larger cultural issues / debates
• Read “texts” of various kinds closely for their implications and assumptions
• Articulate an informed critique of the implications and assumptions of texts
• Sustain a focused literary argument and support it with compelling evidence.

Students are evaluated as follows:
Class involvement, 10%; Reading quizzes and blog, 10%;
Microthemes (short response papers), 30%; Talking Point (discussion leader), 5%; Paper #1: 1200 words (about 4 pages) minimum, 20%; Paper #2: 1500 words (about 5 pages) minimum, 25%.

Attach a copy of the syllabus
* [syllabus341.pdf](Adobe.syllabus341.pdf) 290.08 KB - PDF

Syllabus:

**English 341: American Literature of Social Justice**

**Course Description:** This class will examine primarily U.S. literature, including fiction, drama, autobiography, and narrative journalism, which has addressed situations of political and economic oppression or repression with the potential function of enlisting readers’ sympathies in a project of social justice. This aim was quite clear in the antebellum slave narratives, as well as in novels like *Uncle Tom's Cabin*. More recently, it has also been clear in the Latin American genre known as "testimonio," in which people wrote of their first-hand experiences with death squads, disappearances, and totalitarian dictatorships. This class will read examples of 20th and 21st-century literary texts dealing with social injustice and the curtailment of human and civil rights (including an autobiography about Jim Crow-era segregation, a recent novel about a Sudanese refugee, and a non-fictional account of fourteen men who died in the Arizona desert in 2001 while trying to cross the border). We will address vexed debates surrounding cultural authority
and authenticity, identity politics, attempts to represent the voice of the "oppressed," revision of strategies used in slave narrative or in testimonio, and ethical and rhetorical appeals to an assumed readership.

**Course Objectives:** Our primary goal in this course is to develop a basic understanding of some of the central issues and themes in literature that treats themes of social justice and human and civil rights. In the process of our discussion, we will of course be working on further developing skills associated with the study of literature: close reading, analysis, the use of critical, theoretical, and historical secondary materials, and the development and support of oral and written arguments. By the end of this course, students should be able to:

- Understand some of the central scholarly issues and debates in the study of literature dealing with themes of social justice
- Perceive the interrelation between literature, culture, and society
- Read literary texts through a cultural studies framework
- Understand literature as a powerful agent, as well as reactor, in larger cultural issues / debates
- Read “texts” of various kinds closely for their implications and assumptions
- Articulate an informed critique of the implications and assumptions of texts
- Sustain a focused literary argument and support it with compelling evidence

**Required Textbooks:**
- Kimberly Nance *Can Literature Promote Justice?*
- Frederick Douglass *Narrative of the Life of Frederick Douglass*
- Harriet Beecher Stowe *Uncle Tom's Cabin*
- Rigoberta Menchu *I, Rigoberta Menchu*
- Upton Sinclair *The Jungle*
- Richard Wright *Black Boy*
- Luis Valdez *Zoot Suit and Other Plays*
- Helena Maria Viramontes *Under the Feet of Jesus*
- Luis Alberto Urrea *The Devil’s Highway*
- Dave Eggers *What is the What?*
- Edwidge Danticat *The Farming of Bones*

Additional supplementary readings on Blackboard

If paying for books is a hardship for you, please discuss it with me. There are tips I can offer and other arrangements I can sometimes make.