University Undergraduate Curriculum Committee  
Special Called – General Education  
Meeting Minutes  
Zoom  
January 8, 2021, 1:30 PM

Members Present: Jeff Appling, acting chair; Bridget Trogden, co-chair; Julie Kerrigan (CAFLS); Kristine Vernon (CAFLS); Andrew Levin (AAH); Stephen Fitzmaurice (AAH); Mike Coggeshall (CBSHS); Claudio Cantalupo (CBSH); Nicole Bannister (COE); Alison Leonard (COE); Kevin Finneran (CECAS); Chris Kitchens (CECAS); Mike Sehorn (COS); Daniel Whitehead (COS); Nona Woolbright (COB); Jack Wolf (COB); Sarah Winslow (Honors) Pam Mack (STS); Leslie Youngblood(Degree Works); Andy Campbell (Degree Works); Shannon Clark (Catalog Editor); Jessica Kohout-Tailor; John Morgenstern (Libraries); Ashley Crisp (AAH); Stephanie Evans (CECAS); Rene Schmauder (UGS); and Rhonda Todd (UGS)

Guests: William Everroad (Adm); Debra Sparacino (Registrar); Kyle Anderson; Scott Brame; R Karthikeyan; Karen High

Appling convened the meeting via Zoom at 1:30 PM

I. New Business – Catalog Changes for General Education, effective fall 2022

1. Item 1. Proposal to amend 2022-2023 General Education Curriculum: Mission Statement
   a. Strike the word “synthetically” and replace with the word “creatively”
   b. Insert the word “cultural” between the words “aesthetic” and “ethical”

The committee considered, discussed and approved the change. A note was made that this change was approved at the November 2020 UCC meeting, but to ensure approval, the committee agreed to approve so that all changes were together for Dr. King and Provost Office.

2. Item 2. Proposal to amend 2022-2023 General Education Curriculum: General Education Student Learning Outcomes
   a. Insert the following student learning outcome area: “Global Challenges: 1. Students will demonstrate critical thinking through analysis of global challenges. 2. Students will evaluate how varying perspectives influence global challenges. 3. Students will demonstrate the integration of ethics into analysis of global challenges.” after subparagraph “Communication”; and
   b. Strike the paragraph:
      “Cross-Cultural Awareness: Explain how aspects of culture are integrated into a comprehensive worldview; and then demonstrate how culture influences human behavior.”; and strike the paragraph:
      “Science and Technology in Society: Demonstrate an understanding of issues created by the complex interactions among science, technology, and society.”; and strike the paragraph:
      “Critical Thinking: Demonstrate the ability to assemble information relevant to a significant, complex issue, evaluate the quality and utility of the information, and use
the outcome of the analysis to reach a logical conclusion about the issue.”; and strike the paragraph:

“Ethical Judgment: Demonstrate an ability to identify, comprehend, and deal with ethical problems and their ramifications in a systematic, thorough, and responsible way.”

The committee considered, discussed and approved the change.

3. Item 3. Proposal to amend the 2022-2023 General Education Curriculum policy statement to address the catalog change date and to match the academic regulations section of the undergraduate catalog. Replace the date of 2005 with the date of 2022. Strike the words “the requirements in effect at the time of return will normally prevail. Any variation in curricular or general education requirements shall be considered under the curriculum year change or the substitution procedure” from paragraph and insert the words “the student’s curriculum year is changed to the one in effect at the time of return for students with fewer than 90 credits. The curriculum year remains the same as when they were last enrolled for seniors (90 credits or more). The student’s major department can approve an exception. A Request to Change Academic Program should be submitted in the Student Records tab in iROAR requesting the approval.”

The committee considered, discussed and approved the change.

   a. Strike the language “I. General Education Coursework – 31 credit hours; II. Distributed Coursework – included in majors.” and strike the heading “General Education Coursework (31 credit hours required).
   b. Replace the word “curricula” with the phrase “major courses of study” and strike the phrase “Science and Technology in Society and Cross-Cultural Awareness requirements may be satisfied by other general education courses, as indicated in the footnotes below, as long as the student completes a total of 31 hours in area I and satisfies requirements A-F below.”

The committee considered, discussed and approved the change.

5. Item 5. Proposal to amend 2022-2023 General Education Curriculum: Requirements. C. Natural Sciences with Lab
   a. Add the phrase “minimum of 4 credit hours” for the Natural Sciences with Lab student learning outcome area.
   b. Strike the phrase “Mathematics or Natural Science (3 credit hours) [break] Any general education Mathematics or Natural Science course or:” and all courses listed.

The committee considered, discussed and approved the change.
   a. Add the heading “F. Global Challenges”
   b. Add the language “minimum of 6 credit hours”
   c. Add the language “selected from two different fields”
   d. Add the language “(unless tagged below as interdisciplinary)”
   e. Add the language “...and at least three hours at 3000-level or above”
   f. Strike the heading “E. Cross Cultural Awareness” and all courses listed
   g. Strike the heading “F. Science and Technology in Society” and all courses listed

The committee considered, discussed and approved the change.

7. Item 7. Proposal to amend 2022-2023 General Education Curriculum: Requirements. Strike the paragraph “II. Distributed Coursework [break] Courses in the majors incorporate critical thinking, ethical judgment, and both written and oral communication skills into the curriculum. Some curricula use a cluster of courses to meet the oral communication student learning outcome.”

The committee considered, discussed and approved the change.

8. Item 8. Proposal to amend 2022-2023 General Education Curriculum operating procedure (not in the catalog). The General Education Committee requests that departments not use a restricted course list for Global Challenges in their “Gen Ed Checklist” forms in Curriculog. We will still be building out the global challenges courses for a few semesters and need to better understand the courses available, in revision, in development; student enrollments; and data modeling before any additional restrictions are added to the major courses of study.

The committee considered, discussed and approved the change.

Adjourned – 2:32 PM
MISSION STATEMENT

In order to become informed and productive citizens, undergraduate students need to think critically and creatively synthetically about substantive and often interlinked aesthetic, cultural, ethical, historical, linguistic, philosophical, social, scientific, and quantitative global challenges and issues.

Therefore, in addition to being prepared to complete a major course of study, Clemson University undergraduate students are required to undertake a general education core course of study to develop and to demonstrate the ability to synthesize information relevant to complex issues, to evaluate the quality and utility of the information, and to use the outcomes of their analysis to reach persuasive logical conclusions.

The Clemson University undergraduate curriculum is designed such that arts and humanities, mathematics, natural sciences, social sciences, and written and oral communication contribute to the holistic development of its students.

GENERAL EDUCATION STUDENT LEARNING OUTCOMES

- **Arts and Humanities:** Students will analyze, interpret, and employ aesthetic, ethical, linguistic, and/or philosophical discourse in relevant contexts. OR Students will create, perform, interpret, reinterpret, and/or criticize artistic works.
- **Mathematics:** Students will demonstrate mathematical literacy through interpretation of mathematical forms and performing calculations.
- **Natural Sciences:** Students will demonstrate the process of scientific reasoning through experimental activity and critical comparison of their results to those predicted by accepted natural science principles.
- **Social Sciences:** Students will use social science concepts and evidence to explain human actions or behaviors in the past, the present, and/or the future.
- **Communication:** Students will demonstrate competence in communication through organization of a central message with supporting materials in the chosen medium.
- **Global Challenges:**
  1. Students will demonstrate critical thinking through analysis of global challenges.
  2. Students will evaluate how varying perspectives influence global challenges.
  3. Students will demonstrate the integration of ethics into analysis of global challenges.
- **Cross-Cultural Awareness:** Explain how aspects of culture are integrated into a comprehensive worldview; and then demonstrate how culture influences human behavior.
- **Science and Technology in Society:** Demonstrate an understanding of issues created by the complex interactions among science, technology, and society.
- **Critical Thinking:** Demonstrate the ability to assemble information relevant to a significant, complex issue, evaluate the quality and utility of the information, and use the outcome of the analysis to reach a logical conclusion about the issue.
- **Ethical Judgment:** Demonstrate an ability to identify, comprehend, and deal with ethical problems and their ramifications in a systematic, thorough, and responsible way.

Commented [BGT1]: Comments throughout represent the catalog and curricular changes planned effective fall 2022 for new students.

UCC was presented with these changes at the November 2020 meeting as a first read. Clemson stakeholders were invited to two open meetings in November 2020 and December 2020 about the final changes. The UCC vote is scheduled for January 8, 2021 for these changes, which will be put through Curriculog in AY21-22 for the AY22-23 catalog.

Why? With the amount of transitions needed, we need additional time for planning, details, and faculty development.

Although this document is a bit long, it is designed to let UCC members (and other stakeholders) see exactly what changes will occur.

Please view it side-by-side with the document on the Proposal & Transition Plan, which provides additional context.

Commented [BGT2]: No change. Was updated in 2019.

Commented [BGT3]: No change. Was updated in 2019.

Commented [BGT4]: No change. Was updated in 2019.

Commented [BGT5]: No change. Was updated in 2019.

Commented [BGT6]: No change. Was updated in 2019.

Commented [BGT7]: This is the new learning outcome area. We have 3 learning outcomes within. Every Global Challenges course will meet at least two, and we have assessment rubrics that correspond to the learning outcomes. (Assessment rubrics do not go in the catalog.)
An undergraduate student whose enrollment in a curriculum occurs after May 15, 2022, must fulfill the general education requirements in effect at that time. If a student withdraws from the University and subsequently returns or does not remain continuously enrolled (summers excluded), the student’s curriculum year is changed to the one in effect at the time of return for students with fewer than 90 credits. The curriculum year remains the same as when they were last enrolled for seniors (90 credits or more). The student’s major department can approve an exception. A Request to Change Academic Program should be submitted in the Student Records tab in iROAR requesting the approval; the requirements in effect at the time of return will normally prevail. Any variation in curricular or general education requirements shall be considered under the curriculum year change or the substitution procedure.

**Requirements (31 credit hours)**
To meet general education student learning outcomes, 31 total credit hours are required, distributed as follows: I. General Education Coursework 31 credit hours; II. Distributed Coursework included in majors.

**General Education Coursework (31 credit hours required)**
*Note: General education requirements in some major courses of study curricula are more restrictive than those shown below. Science and Technology in Society and Cross-Cultural Awareness requirements may be satisfied by other general education courses, as indicated in the footnotes below, as long as the student completes a total of 31 hours in area I and satisfies requirements A-F below.*

**A. Communication**
(minimum of 6 credit hours)
- English Composition (3 credit hours)
  - ENGL 1030 - Composition and Rhetoric 3 Credits (ENGL 1020 for transfer students)
- Oral Communication (3 credit hours)
  - COMM 1500 - Introduction to Human Communication 3 Credits
  - COMM 2500 - Public Speaking 3 Credits
  - HON 2230 - Studies in Communications 3 Credits
  Or an approved cluster of courses such as:
    - AS 3090 - Air Force Leadership and Management I 4 Credits
    - AS 3100 - Air Force Leadership and Management II 4 Credits
    - AS 4090 - National Security Policy I 4 Credits
    - AS 4100 - National Security Policy II 4 Credits
    or
    - ML 1010 - Leadership Fundamentals I 2 Credits
    - ML 1020 - Leadership Fundamentals II 2 Credits
  Or an approved departmental cluster of courses such as:
    - ARCH 1510 – Architecture Communication 5 Credits
    - ARCH 2510 – Architecture Foundations I 6 Credits
    - ARCH 2520 – Architecture Foundations II 6 Credits
    (for students in the Architecture BA Program)
    or
    - HIST 2990 – Seminar: The Historian’s Craft 3 Credits
    - HIST 4900 – Senior Seminar 3 Credits
**B. MATHEMATICAL, SCIENTIFIC, AND TECHNOLOGICAL LITERACY**

(minimum of 44-3 credits by March 2021)

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<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
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<td>MATH 1010</td>
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<td>MATH 1020</td>
<td>Business Calculus I</td>
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<td>MATH 1060</td>
<td>Calculus of One Variable I</td>
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<td>MATH 1070</td>
<td>Differential and Integral Calculus I</td>
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<td>MATH 1080</td>
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<td>MATH 2070</td>
<td>Business Calculus II</td>
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<tr>
<td>STAT 2220</td>
<td>Statistics in Everyday Life</td>
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<tr>
<td>STAT 2300</td>
<td>Statistical Methods I</td>
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<tr>
<td>STAT 3090</td>
<td>Introductory Business Statistics</td>
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</tr>
<tr>
<td>STAT 3300</td>
<td>Statistical Methods II</td>
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</tbody>
</table>

*Note: For Early Childhood Education, Elementary Education, and Special Education majors only, the approved cluster of MATH 1150, MATH 1160 and MATH 2160 satisfies the requirement.

**C. NATURAL SCIENCES WITH LAB**

(minimum of 44-3 credits by March 2021)

<table>
<thead>
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<td>Stellar Astronomy</td>
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<td>BIOL 1030</td>
<td>General Biology I</td>
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<td>General Biology Laboratory I</td>
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<td>BIOL 1060</td>
<td>General Biology Laboratory II</td>
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<tr>
<td>BIOL 1090</td>
<td>Introduction to Life Science</td>
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<td>BIOL 1100</td>
<td>Principles of Biology I</td>
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<tr>
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<td>Principles of Biology II</td>
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<tr>
<td>BIOL 1200</td>
<td>Biological Inquiry Laboratory I</td>
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<td>BIOL 1220</td>
<td>Keys to Biodiversity</td>
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<td>BIOL 1220</td>
<td>Biological Inquiry Laboratory I</td>
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<td>BIOL 1230</td>
<td>Keys to Human Biology</td>
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<td>Chemistry in Context II</td>
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<td>GEOL 1010</td>
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<td>GEOL 1120</td>
<td>Earth Resources I</td>
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<td>GEOL 1140</td>
<td>Earth Resources Laboratory I</td>
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<tr>
<td>GEOL 2020</td>
<td>Earth History</td>
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<tr>
<td>PHSC 1070</td>
<td>Introduction to Earth Science</td>
<td>4</td>
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</tbody>
</table>
PHSC 1080 - Introduction to Physical Science 4 Credits
PHSC 1170 - Introduction to Chemistry and Earth Science for Elementary Education Majors, 4 Credits
PHSC 1180 - Introduction to Physics, Astronomy, and Earth Science for Elementary Education Majors, 4 Credits
PHYS 1220 - Physics with Calculus I 3 Credits and
PHYS 1240 - Physics Laboratory I 1 Credit
PHYS 2000 - Introductory Physics 4 Credits
PHYS 2070 - General Physics I 3 Credits and
PHYS 2090 - General Physics I Laboratory 1 Credit
PHYS 2080 - General Physics II 3 Credits and
PHYS 2100 - General Physics II Laboratory 1 Credit
PHYS 2210 - Physics with Calculus II 3 Credits and
PHYS 2230 - Physics Laboratory II 1 Credit
PHYS 2220 - Physics with Calculus III 3 Credits and
PHYS 2240 - Physics Laboratory III 1 Credit

Mathematics or Natural Science (3 credit hours)
Any general education Mathematics or Natural Science course or:
BIOL 2000 - Biology in the News 3 Credits
BIOL 2010 - Biotechnology and Society 3 Credits
BIOL 2030 - Human Disease and Society 3 Credits
BIOL 2040 - Environment, Energy and Society 3 Credits
BIOL 2100 - Evolution and Creationism 3 Credits
BIOL 2200 - Biology: Concepts, Issues, and Values 3 Credits
ENSP 2000 - Introduction to Environmental Science 3 Credits
ENS (PES) 3150 - Environment and Agriculture 3 Credits
ENT 2000 - Six-Legged Science 3 Credits
GEOL 1200 - Natural Hazards 3 Credits
GEOL 3000 - Environmental Geology 3 Credits
PES (ENSP) 3150 - Environment and Agriculture 3 Credits
PHYS 2400 - Physics of the Weather 3 Credits
PHYS 2450 - Physics of Global Climate Change 3 Credits
PHYS 2800 - Physics and Reality 3 Credits
PLPA 2130 - Fungi and Civilization 3 Credits
STS 2160 - Critical Analysis of a Current STS Issue 3 Credits

CD. ARTS AND HUMANITIES
(minimum of 6 credit hours)

Literature
(3 credit hours)
Any 2000-level ENGL literature course or any of the other courses listed

ENGL 2020 - The Major Forms of Literature 3 Credits
ENGL 2120 - World Literature 3 Credits
ENGL 2130 - British Literature 3 Credits
ENGL 2140 - American Literature 3 Credits

Commented [BGT11]: Note: This list is very likely to change. Some of these courses may be appropriate for Natural Sciences if they meet the learning outcome & expectations. Others may be appropriate for Global Challenges if they meet the learning outcome & expectations.

Faculty development and review will start in spring 2021.

Commented [BGT12]: Note, just FYI: I did some data analysis on these courses. In the last 4 semesters (including summers), 6 of these courses were never taught. Of the ones that were taught, there were only 40 sections total, accounting for 1688 seats, <3% of the entire general education curriculum course load for the University.

Commented [BGT13]: Note: List might change as courses are reviewed via Curriculog. Faculty may wish to adapt some of these courses for the Global Challenges area instead, and they can be reviewed accordingly.
ENGL 2150 - Literature in 20th- and 21st-Century Contexts 3 Credits
ENGL 2160 - African American Literature 3 Credits
CHIN 4010 - Pre-Modern Chinese Literature in Translation 3 Credits
FR 3000 - Survey of French Literature 3 Credits
FR 3040 - French Short Story 3 Credits
GER 2600 - Selected Topics in German Literature 3 Credits
GER 3060 - The German Short Story 3 Credits
GER 3600 - German Literature to 1832 3 Credits
GER 3610 - German Literature from 1832 to Modernism 3 Credits
HON 1990 - Freshman Colloquium: Arts and Humanities (Literature) 3 Credits
HON 2210 - Studies in Literature 3 Credits
ITAL 3010 - Introduction to Italian Literature 3 Credits
ITAL 3020 - Modern Italian Literature 3 Credits
JAPN 4010 - Japanese Literature in Translation 3 Credits
JAPN 4060 - Introduction to Japanese Literature 3 Credits
RUSS 3600 - Russian Literature to 1910 3 Credits
RUSS 3610 - Russian Literature Since 1910 3 Credits
SPAN 3040 - Introduction to Hispanic Literary Forms 3 Credits
SPAN 3110 - Survey of Spanish-American Literature 3 Credits
SPAN 3130 - Survey of Spanish Literature 1.3 Credits

Non-Literature
(3 credit hours)

AAH 1010 - Survey of Art and Architectural History I 3 Credits
ART 2100 - Art Appreciation 3 Credits
ART 3750 - Writing for the Arts in Charleston 3-6 Credits
ASL 3050 - Deaf Studies in the United States 3 Credits
CAAH 2010 - Cultural Literacies Across Media 3 Credits
CHIN (PHIL) 3120 - Philosophy in Ancient China 3 Credits
CHIN (PHIL) 3130 - Philosophy in Modern China 3 Credits
CHIN (PHIL) 4140 - Philosophy in Medieval China 3 Credits
CHIN 4990 - Selected Topics in Chinese Culture 3 Credits
COMM 1800 - Introduction to Cross-Cultural Communication 3 Credits
COMM 3030 - Communication Law and Ethics 3 Credits
COMM 3080 - Public Communication and Popular Culture 3 Credits
COMM 3090 - Visual Discourse and the Public 3 Credits
COMM 4020 - Mass Communication: History and Criticism 3 Credits
ENGL (GW) 3010 - Great Books of the Western World 3 Credits
ENGL 3550 - Global Studies in Popular Culture 3 Credits
ENGL (W Cin) 3570 - Film 3 Credits
ENGL (LANG, WCIN) 4540 - Selected Topics in International Film 3 Credits
FR 3070 - French Civilization 3 Credits
GER 3400 - German Culture 3 Credits
GW (ENGL) 3010 - Great Books of the Western World 3 Credits
GW 4050 - The Darwinian Revolution 3 Credits
HON 1910 - Freshman Colloquium: Arts and Humanities (Non-Literature) 3 Credits
HON 2010 - Structures and Society 3 Credits
HON 2030 - Society, Art, and Humanities 3 Credits
HON 2100 - Experiencing the Arts 3 Credits

Commented [BGT14]: Note: List might change as courses are reviewed via Curriculog.
Faculty may wish to adapt some of these courses for the Global Challenges area instead, and they can be reviewed accordingly.
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<th>Credits</th>
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<td>HUM 3020</td>
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<td>HUM 3060</td>
<td>Creative Genius in Western Culture</td>
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<td>Studies in Humanities</td>
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<td>JAPN 3070</td>
<td>Japanese Civilization I</td>
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<td>Japanese Civilization II</td>
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<td>LANG 3400</td>
<td>Cosmopolis: The Myth of the City</td>
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<td>Sacred and Profane Bodies</td>
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<td>Faces of Evil</td>
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<td>Selected Topics in International Film</td>
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<td>LARC 1160</td>
<td>History of Landscape Architecture</td>
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<td>History of Rock and Roll</td>
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<tr>
<td>PHIL 3260</td>
<td>Science and Values</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 3270</td>
<td>Philosophy of Social Science</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 3440</td>
<td>Business Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 3450</td>
<td>Environmental Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PHIL (WS) 3490</td>
<td>Theories of Gender and Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>PHIL (CHIN) 4140</td>
<td>Philosophy in Medieval China</td>
<td>3</td>
</tr>
<tr>
<td>REL 1010</td>
<td>Introduction to Religion</td>
<td>3</td>
</tr>
<tr>
<td>REL 1020</td>
<td>World Religions</td>
<td>3</td>
</tr>
</tbody>
</table>
REL 3010 - The Old Testament 3 Credits
REL 3020 - Survey of New Testament Literature 3 Credits
REL 3030 - The Quran 3 Credits
REL 3060 - Judaism 3 Credits
REL 3070 - The Christian Tradition 3 Credits
REL 3090 - The Religious History of the American South 3 Credits
REL 3120 - Hinduism 3 Credits
REL 3130 - Buddhism 3 Credits
REL 3150 - Islam 3 Credits
REL 3350 - Islam and the West 3 Credits
RUSS 3400 - Russian Culture of the Nineteenth Century 3 Credits
SPAN 3070 - The Hispanic World: Spain 3 Credits
SPAN 3080 - The Hispanic World: Latin America 3 Credits
STS 1010 - Survey of Science and Technology in Society 3 Credits 1
STS 1020 - Ideas, Machinery, and Society 3 Credits 1
STS 2150 - A Critical Approach to the Global Challenge of Technological Revolutions 3 Credits 1
STS 3010 - Science in Context 3 Credits 1
STS 3030 - Technology, Culture and Society 3 Credits 1
THEA 2100 - Theatre Appreciation 3 Credits
THEA 2790 - Theatre Practicum 1 Credits
THEA (MUSC) 3090 - Survey of Broadway Musicals II 3 Credits
THEA 3150 - Theatre History I 3 Credits
THEA 3160 - Theatre History II 3 Credits
THEA 3170 - African-American Theatre I 3 Credits
WS 3010 - Introduction to Women's Studies: Women's Lives 3 Credits
WS (PHIL) 3490 - Theories of Gender and Sexuality 3 Credits
WCIN (ENGL) 3570 - Film 3 Credits
WCIN (ENGL, LANG) 4540 - Selected Topics in International Film 3 Credits

DE, SOCIAL SCIENCES
(minimum of 6 credit hours, selected from two different fields)
AGRB 2020 - Agricultural Economics 3 Credits
ANTH 2010 - Introduction to Anthropology 3 Credits 2
ECON 2000 - Economic Concepts 3 Credits
ECON 2050 – Why Business? 3 Credits
ECON 2110 - Principles of Microeconomics 3 Credits
ECON 2120 - Principles of Macroeconomics 3 Credits
GEOG 1010 - Introduction to Geography 3 Credits
GEOG 1030 - World Regional Geography 3 Credits 2
GEOG 1060 - Geography of the Physical Environment 4 Credits
HIST 1010 - History of the United States 3 Credits
HIST 1020 - History of the United States 3 Credits
HIST 1220 - History, Technology, and Society 3 Credits 1
HIST 1240 - Environmental History Survey 3 Credits 1
HIST 1720 - The West and the World I 3 Credits 2

Commented [BGT15]: Note: List might change as courses are reviewed via Curriculog.
Faculty may wish to adapt some of these courses for the Global Challenges area instead, and they can be reviewed accordingly.

#Notes: 1This course also satisfies the Science and Technology in Society Requirement. 2This course also satisfies the Cross Cultural Awareness Requirement.
HIST 1730 - The West and the World II 3 Credits
HIST 1930 - Modern World History 3 Credits
HON 1920 - Freshman Colloquium: Social Science 3 Credits
HON 2020 - Science, Culture, and Human Values 3 Credits
HON 2200 - Studies in Social Science 3 Credits
PAS 3010 - Introduction to Pan African Studies 3 Credits
POSC 1010 - American National Government 3 Credits
POSC 1020 - Introduction to International Relations 3 Credits
POSC 1030 - Introduction to Political Theory 3 Credits
POSC 1040 - Introduction to Comparative Politics 3 Credits
PSYC 2010 - Introduction to Psychology 3 Credits
PSYC 2500 - Pursuing Happiness 3 Credits
PSYC 2750 - Applied Psychology and Transportation 3 Credits
RS 3010 - Rural Sociology 3 Credits
SOC 2010 - Introduction to Sociology 3 Credits
SOC 2020 - Social Problems 3 Credits

*Note: AGRB and ECON are considered the same field.
*Note: This course also satisfies the Science and Technology in Society Requirement.
*This course also satisfies the Cross-Cultural Awareness Requirement.

F. GLOBAL CHALLENGES
(minimum of 6 credit hours, selected from two different fields (unless tagged below as interdisciplinary), and at least three hours at 3000-level or above)

F. CROSS CULTURAL AWARENESS
(minimum of 3 credits, if not satisfied by a course in groups A-D)

Comments:
BGT16: I can’t think of a better place, to put this, but it’s important. As part of voting on this proposal for the 2022 catalog, we want to request that departments NOT use a restricted course list for global challenges in their “Gen Ed Checklist” forms in Curriculog, at least for a few years. We will still be building out the global challenges courses for a few semesters and need to see where we land with courses, enrollments, and data modeling before any additional restrictions are added by the major courses of study.

Commented [BGT17]: List will go here as courses ar(r)edesigned, reviewed, and approved.

Repeating note from comment 1: Please view this document side-by-side with the document on the Proposal & Transition Plan, which provides additional context.

Commented [BGT18]: This competency area will no longer exist. Current courses can be reviewed for other learning outcome areas, including Global Challenges.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS 1010</td>
<td>Cross Cultural Awareness: International Experience</td>
<td>1 Credit</td>
</tr>
<tr>
<td>IS 2100</td>
<td>Selected Topics in International Studies</td>
<td>3 Credits</td>
</tr>
<tr>
<td>LANG 2500</td>
<td>Introduction to World Languages</td>
<td>2 Credits</td>
</tr>
<tr>
<td>LANG 2540</td>
<td>Introduction to World Cinemas</td>
<td>2 Credits</td>
</tr>
<tr>
<td>MUSC 2100</td>
<td>Music Appreciation: Music in the Western World</td>
<td>3 Credits</td>
</tr>
<tr>
<td>MUSC 2110</td>
<td>World Music</td>
<td>3 Credits</td>
</tr>
<tr>
<td>PAS 3010</td>
<td>Introduction to Pan African Studies</td>
<td>2 Credits</td>
</tr>
<tr>
<td>POSC 1020</td>
<td>Introduction to International Relations</td>
<td>2 Credits</td>
</tr>
<tr>
<td>POSC 1040</td>
<td>Introduction to Comparative Politics</td>
<td>2 Credits</td>
</tr>
<tr>
<td>PSYC 2500</td>
<td>Pursuing Happiness</td>
<td>3 Credits</td>
</tr>
<tr>
<td>PSYC 3570</td>
<td>Psychology and Culture</td>
<td>3 Credits</td>
</tr>
<tr>
<td>REL 1010</td>
<td>Introduction to Religion</td>
<td>3 Credits</td>
</tr>
<tr>
<td>REL 1020</td>
<td>World Religions</td>
<td>3 Credits</td>
</tr>
<tr>
<td>WS 1030</td>
<td>Women in Global Perspective</td>
<td>3 Credits</td>
</tr>
</tbody>
</table>

or Through a University-approved cross-cultural experience (See page III-17)

*Note*: This course also satisfies the Science and Technology in Society Requirement.

**F. SCIENCE AND TECHNOLOGY IN SOCIETY**

(minimum of 3 credit hours, if not satisfied by a course in groups A-E)

- AGED (EDE) 4800 - Foundations of Digital Media and Learning 3 Credits
- AGRB 2050 - Agriculture and Society 3 Credits
- AGRB (ECON) 4570 - Natural Resource Use, Technology and Policy 3 Credits
- AVS 3150 - Animal Welfare 3 Credits
- AVS 4150 - Contemporary Issues in Animal Science 3 Credits
- BIOL 2000 - Biology in the News 3 Credits
- BIOL 2010 - Biotechnology and Society 3 Credits
- BIOL 2030 - Human Disease and Society 3 Credits
- BIOL 2040 - Environment, Energy and Society 3 Credits
- BIOL 2100 - Evolution and Creationism 3 Credits
- BIOL 2110 - Introduction to Toxicology 3 Credits
- BIOL 2200 - Biology: Concepts, Issues, and Values 3 Credits
- BIOL 4730 - History of Modern Biology 3 Credits
- CH 1050 - Chemistry in Context 1 or 2 Credits
- CH 1060 - Chemistry in Context II 4 Credits
- COMM 1070 - Media Representations of Science and Technology 2 Credits
- COMM 3070 - Public Communication of Science and Technology 2 Credits
- CPSC 2920 - Computing, Ethics and Global Society 3 Credits
- CTE 1150 - Contemporary Technological Problems 3 Credits
- CTE 2210 - Technology, Culture and Design 3 Credits
- CTE 2220 - Exploring Technology 3 Credits
- ECE 1010 - Robots in Business and Society 3 Credits
- ECON (AGR) 4570 - Natural Resource Use, Technology, and Policy 3 Credits
- EDE (AGED) 4800 - Foundations of Digital Media and Learning 3 Credits
- EES 4860 - Environmental Sustainability 3 Credits
- ENGR 2200 - Evaluating Innovations: Fixtures, Fads and Flops 3 Credits
- ENGR 2270 - Technology, Culture and Design 3 Credits
- ENR 3120 - Environmental Risks and Society 3 Credits

Commented [BGT19]: This competency area will no longer exist.

Current courses can be reviewed for other learning outcome areas, including Global Challenges.
ENR (FOR) 4160 - Forest Policy and Administration 3 Credits
ENSP 1250 - Sustainable Resource Use 3 Credits
ENSP 2000 - Introduction to Environmental Science 3 Credits
ENSP (PES) 3150 - Environment and Agriculture 3 Credits
ENSP 4000 - Studies in Environmental Science 3 Credits
ENT 2000 - Six-Legged Science 3 Credits
FDSC 2140 - Food Resources and Society 3 Credits
FOR (ENR) 4160 - Forest Policy and Administration 3 Credits
GEOL 1120 - Earth Resources 3 Credits
GEOL 1200 - Natural Hazards 3 Credits
GEOL (ENSP) 1250 - Sustainable Resource Use 3 Credits
GEOL 2700 - Experiences in Sustainable Development: Water 3 Credits
GEOL 3000 - Environmental Geology 3 Credits
HCG (NURS) 3330 - Health Care Genetics 3 Credits
HIST 1220 - History, Technology, and Society 3 Credits
HIST 1240 - Environmental History Survey 3 Credits
HIST 3210 - History of Science 3 Credits
HIST 3220 - History of Technology 3 Credits
HIST 3230 - History of American Technology 3 Credits
HIST 3920 - History of the Environment of the United States 3 Credits
HIST 4240 - Topics in History of Medicine and Health 3 Credits
HIST 4910 - Studies in the History of Science and Technology 3 Credits
HATH 4310 - Public and Environmental Health 3 Credits
HON 1940 - Freshman Colloquium: Science and Technology in Society 3 Credits
HON 2010 - Structures and Society 3 Credits
HON 2060 - Controversies in Science and Technology 3 Credits
IE 4880 - Human Factors Engineering 3 Credits
LARC 1160 - History of Landscape Architecture 3 Credits
MATH 2190 - Introduction to Cryptography 3 Credits
MKT 4450 - Macromarketing 3 Credits
MUSC 3180 - History of Audio Technology 3 Credits
NURS 1400 - Computer Applications in Nursing 3 Credits
NURS (HCG) 3330 - Health Care Genetics 3 Credits
NUTR 2030 - Introduction to Principles of Human Nutrition 3 Credits
NUTR 2100 - Nutrition and Physical Activity 3 Credits
PES (ENSP) 3150 - Environment and Agriculture 3 Credits
PES 1760 - Sustainable Food Systems Towards Global Food Security 3 Credits
PHIL 1240 - Technology and its Discontents 3 Credits
PHIL 2100 - Evolution and Creation 3 Credits
PHIL 3240 - Philosophy of Technology 3 Credits
PHIL 3260 - Science and Values 3 Credits
PHIL 3280 - Philosophy and Technology of the Body 3 Credits
PHIL 3400 - Technology, Environment, and Sustainability 3 Credits
PHIL 3450 - Environmental Ethics 3 Credits
PHYS 2450 - Physics of Global Climate Change 3 Credits
PKSC 3680 - Packaging and Society 3 Credits
PLPA 2130 - Fungi and Civilization 3 Credits
I. DISTRIBUTED COURSEWORK

Courses in the majors incorporate critical thinking, ethical judgment, and both written and oral communication skills into the curriculum. Some curricula use a cluster of courses to meet the oral communication student learning outcome.

*Commented [BGT20]: Ethics and critical thinking are now incorporated in the Global Challenges area.

Additionally, the idea of distributed coursework – without a clear list, rationale, and assessment – is not compliant with SACSCOC standards 8.2b and 9.3. (See additional comments in the Proposal and Transition Plan document)

Departments should still be encouraged to build upon the general education student learning outcome areas in their own major courses of study, but it will not be a requirement.
INTRODUCTION AND VISION

What should Clemson undergraduate students know and do regardless of major?
How do we express our land-grant mission in our curriculum?
How do we infuse engaged learning opportunities into our curriculum to reach all students?

These are just some of the questions that we – the faculty, students, staff, alumni, and other partners – have been probing for the past few years. From the inaugural ClemsonForward strategic planning process through the creation of a general education task force through the establishment of a standing faculty general education committee, over 600 individuals have provided input and ideas, culminating in this document establishing a blueprint for continued change and evolution of our undergraduate general education curriculum.

Fundamentally, a college curriculum should adapt as educational needs and opportunities arise. As the only common academic curriculum for all undergraduate students, the Clemson University general education curriculum should be more than an accreditation requirement and more than a graduation checklist. And yet, it should not be so cumbersome as to impede student choice and timely progress to degree. What we collectively most desire is a curriculum that integrates students’ intellectual development with their growth as thinkers and citizens, while both supporting and augmenting students’ major courses of study.

This document outlines the details of how we have and will continue to support undergraduate education at Clemson University.

Approved by General Education Committee 10/28/20

Andrea Feerer, College of Architecture, Arts and Humanities, voting member
Angela Naimou, College of Architecture, Arts and Humanities, voting member
Jack Wolf, College of Business, voting member
Darren Linvill, College of Behavioral, Social and Health Sciences, voting member
Mike Coggeshall, College of Behavioral, Social and Health Sciences, voting member
Jackie Malloy, College of Education, voting member
Scott Brame, College of Engineering, Computing and Applied Sciences, voting member
Karen High, College of Engineering, Computing and Applied Sciences, voting member
Matthew Macauley, College of Science, voting member
Christine Minor, College of Science, voting member
Jessica Kohout-Tailor, University Libraries, voting member
Kyle Anderson, Office of Global Engagement
Pam Mack, College of Architecture, Arts and Humanities
Sarah Winslow, Clemson University Honors College
Bridget Trogden, Division of Undergraduate Studies, chair
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MODEL FOR GENERAL EDUCATION AT CLEMSON UNIVERSITY

Our model delineates three areas for our students’ development: communication, ways of knowing, and engagement with global challenges. This model would start for new students with the fall 2022 undergraduate catalog.

COMMUNICATION

For students, faculty, and employers, the ability to communicate is always toward the top of any list of desired skills and abilities. The Clemson undergraduate general education curriculum has at minimum one course each in written communication (3 credit hours) and oral communication (3 credit hours).

Student learning outcome statement for communication: Students will demonstrate competence in communication through organization of a central message with supporting materials in the chosen medium.

WAYS OF KNOWING

A general education curriculum should ensure depth and breadth across different disciplines and domains of knowledge. We describe this area as “ways of knowing;” study across epistemologies is an important component of developing higher order thinking skills. The Clemson undergraduate general education curriculum has at minimum one course in mathematics (3 credit hours), one course in natural sciences with lab (4 credit hours), two courses in arts & humanities (6 credit hours, 3 hours of which focus on literature), two courses in social sciences (6 credit hours, selected from two different fields).

Student learning outcome for mathematics: Students will demonstrate mathematical literacy through interpretation of mathematical forms and performing calculations.

Student learning outcome for natural sciences: Students will demonstrate the process of scientific reasoning through experimental activity and critical comparison of their results to those predicted by accepted natural science principles.
Student learning outcome for arts & humanities: Students will analyze, interpret, and employ aesthetic, ethical, linguistic, and/or philosophical discourse in relevant contexts. - or - Students will create, perform, interpret, reinterpret, and/or criticize artistic works.

Student learning outcome for social sciences: Students will use social science concepts and evidence to explain human actions or behaviors in the past, the present, and/or the future.

GLOBAL CHALLENGES
The opening of this document provides three framing questions that were used for gathering information, ideas, and consensus from stakeholders, from 2017 through the present: What should Clemson undergraduate students know and do regardless of major? How do we express our land-grant mission in our curriculum? How do we infuse engaged learning opportunities into our curriculum to reach all students?

The global challenges area of the curricular model was created directly from the feedback obtained. Repeatedly, faculty, students, staff, and other stakeholders indicated that we want our students to develop critical thinking and ethical decision-making, analyze multiple perspectives, integrate learning across disciplines, and develop as global citizens. The general education committee proposes that the Clemson undergraduate general education curriculum has a minimum of 6 credit hours in global challenges. (See Appendix I for further information on how the topic of global challenges evolved.)

Student learning outcomes for global challenges: 1.) Students will demonstrate critical thinking through analysis of global challenges. 2.) Students will evaluate how varying perspectives influence global challenges. 3.) Students will demonstrate integrative thinking through analyzing ethical consequences of global challenges. (Each global challenges course would incorporate at least two of the three student learning outcomes.)

What Constitutes a Global Challenges Course?
- **Content:** Global challenges are a series of problems, issues, and/or enduring questions facing the world and its inhabitants.
  - The U.N. Sustainable Development Goals are a good framework, though global challenges are not limited to these topics alone.
  - They do not belong to any one discipline. In fact, the study of global challenges encourages interdisciplinary thinking.
  - ‘Global’ does not require an international focus, though it may. Local, regional, national, international, and virtual issues can all be global challenges.
- **Intellectual development:** By design, courses in the global challenges area should incorporate:
  - interdisciplinary and integrative thinking,
  - metacognition and student self-awareness in relation to a position of knowledge, and/or systems thinking.
- **Broadening perspectives:** A general education curriculum should include both depth and breadth of study. Issues of curriculum review are further delineated below, but the general education committee also proposes that the global challenges credit hours are earned from at least two different fields, unless the fields are inherently interdisciplinary (SUST, HON, WS, PAS, HUM, etc.).
- **Sequencing:** The global challenges courses extend to and build upon skills and knowledge acquired in the communication and ways of knowledge areas. Accordingly, the committee proposes that at least 3 hours of the global challenges requirement is from courses at the 3000-level or above. This sequencing model helps students with their developmental trajectory for general education learning
outcomes across an academic program and across time. This expectation allows us to move our undergraduate general education program beyond its current heavy reliance on foundational courses.

- **A Clemson signature program:** The global challenges area insures a shared experience of a distinctly Clemson perspective as part of undergraduate education. Our institutional data show that 22% of non-transfer students and 27% of transfer students never engage in a high-impact educational practice prior to graduation. (High-impact educational practices include: student-faculty research, study abroad and international virtual exchange, service learning, internships, co-ops, and capstones/senior design). As much as possible, global challenges courses should include engaged learning opportunities, thereby allowing all of our undergraduate students to take advantage of our R01 institution’s resources and land-grant mission, which is not always available at other institutions. Additionally, Clemson students currently engaging in high-impact educational practices for elective credit could earn global challenges/general education credit when the courses meet the criteria described herein. In many ways, students will be not only studying global challenges, but will also be working to address and solve them. To ensure a distinctly Clemson component of the undergraduate curriculum, no transfer equivalencies will be considered for the 6 hours of global challenges coursework.

- **Transition:** Many Clemson courses – including those that meet the current cross-cultural awareness and science & technology in society areas – may be suitable for modification into global challenges courses. Faculty and departments may wish to create new courses or redesign aspects of current courses.
  
  - The information above will help with design and review.
  - Any global challenge course should have a signature assignment to be used for assessment. (See Appendix L creating assessment rubric.)

### OVERALL TIMELINE & CRITICAL TASKS

<table>
<thead>
<tr>
<th>19-20</th>
<th>20-21</th>
<th>21-22</th>
<th>22-23</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Development of global challenges learning outcome area &amp; course list</strong></td>
<td>Work with advisors to identify &amp; mitigate problems.</td>
<td>UCC review/vote on catalog change.* GC course review can begin in spring 2021. Create details and policies for attributes (with Registrar Office &amp; others).</td>
<td>Substantial course review to prepare for 2022 catalog. Curriculum proposals for new courses as needed. Departments alter major curriculum maps. (Continued &amp; ongoing)</td>
</tr>
<tr>
<td><strong>Faculty development for global challenges courses &amp; signature assignments</strong></td>
<td>Soft launch (May 2020) – Faculty Institute CT2/Global Challenges.</td>
<td>Faculty workshops &amp; learning groups around GC assignments &amp; content (with OTEI). (Continued &amp; ongoing)</td>
<td>(Continued &amp; ongoing)</td>
</tr>
</tbody>
</table>
CURRICULUM REVIEW

Courses can be reviewed and approved for only one general education student learning outcome area.

Process

The process for review is through Curriculog, providing transparency and faculty governance.

1. The “Gen Ed Course Review” form is completed in Curriculog.
2. The form is reviewed by the General Education Committee or a subcommittee.
3. The General Education Committee will undertake one of two actions:
   a. If the course is approved, a recommendation will be made to UCC for inclusion in the general education list in the appropriate catalog year. The General Education Committee chair will move this forward using the “[Year] Catalog Undergraduate Modify General Education” form in Curriculog. (Any courses that need to be removed from the list will be adjudicated through the same process.)
   b. If a course is not approved, feedback will be given to the proposing unit.

Course Attributes: No Double Counting between Courses in General Education Curriculum

In the new general education model described above, each course in the general education curriculum would count for one student learning outcome area – communication, mathematics, natural sciences, arts/humanities, social sciences, or global challenges. Currently, a number of courses “double dip” for two general education areas. This is problematic for two reasons: a.) SACSCOC standards require that students complete at least 30 hours of coursework in general education, and extensive use of double dipping cuts down on the depth and breadth of an undergraduate education, and b.) our institutional assessment data show that students in courses that are coded to meet more than one student learning outcome are not demonstrating appropriate achievement in those areas. (SACSCOC requirements for general education can be seen in Appendix II.)

The table below shows the current level of double dipping in general education course areas.

<table>
<thead>
<tr>
<th>Number of courses that:</th>
<th>Natural Science</th>
<th>Math</th>
<th>AH Lit</th>
<th>AH Non-Lit</th>
<th>Social Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have no “double dip”</td>
<td>25</td>
<td>12</td>
<td>23</td>
<td>83</td>
<td>18</td>
</tr>
<tr>
<td>Also fulfill STS</td>
<td>18</td>
<td>1</td>
<td>0</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Also fulfill CCA</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>% double dip</td>
<td>43%</td>
<td>9%</td>
<td>8%</td>
<td>20%</td>
<td>40%</td>
</tr>
</tbody>
</table>
Notes: a.) 1 course (AGBR 2050) fulfills both STS and CCA, but no other areas. b.) Of the 18 courses that fulfill both natural science and STS, many have not been taught in the past two years and when they are, the student enrollment accounts for less than 3% of our total annual seats in general education courses.

To remedy this, the General Education Committee will recommend that faculty teaching courses in the general education curriculum submit them for review in one and only one outcome area according to the tentative table below. All reviews will be done through the Curriculog “Gen Ed Course Review” form and all necessary catalog changes will flow from the General Education Committee to the Undergraduate Curriculum Committee, according to our already established process.

<table>
<thead>
<tr>
<th>Student learning outcome area</th>
<th>Review Calendar (Tentative)*</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication (oral &amp; written)</td>
<td>2019-2020</td>
<td>Odd years (19-20, 21-22, 23-24, etc.)</td>
</tr>
<tr>
<td>Mathematics</td>
<td>2020-2021</td>
<td>Odd years (19-20, 21-22, 23-24, etc.)</td>
</tr>
<tr>
<td>Natural Science</td>
<td>2020-2021</td>
<td>Odd years (19-20, 21-22, 23-24, etc.)</td>
</tr>
<tr>
<td>Arts &amp; Humanities</td>
<td>2021-2022</td>
<td>Even years (20-21, 22-23, 24-25, etc.)</td>
</tr>
<tr>
<td>Social Science</td>
<td>2021-2022</td>
<td>Even years (20-21, 22-23, 24-25, etc.)</td>
</tr>
<tr>
<td>Global Challenges</td>
<td>Starts in spring 2021, continues through 2021-2022 and beyond</td>
<td>Even years (22-23, 24-25, etc.)</td>
</tr>
</tbody>
</table>

*Once reviewed, the General Education Committee will not request another full review of the courses in this block for a period of 6 years. However, faculty and departments can submit courses for review (for inclusion or removal) at any time.

Course Attributes: Double Counting between Courses in General Education Curriculum & Courses in Major or Minor Curricula
We seek to devote 6 credit hours of general education program requirements to student engagement in real-world problems through a global challenges learning outcome area, thus moving beyond a general education curriculum heavily reliant on sets of foundational courses. Some of the global challenges courses are expected to also fulfill requirements for major or minor courses of study. A consensus among Clemson faculty engaged in advances in general education curricula is that integrating general education skills/competencies with a student’s major skills/competencies is the optimal way to enrich student development.

In speaking with our SACSCOC Vice President, we do not anticipate any problem with overlaps between global challenges courses in the general education curriculum and courses in majors or minors, as long as the following are met:

- We have clear criteria for what a global challenge course entails.
- We have ongoing faculty development participation for faculty that helps to ensure that courses are by design meeting the student learning outcome.
- We have clear criteria for assessment of the global challenges student learning outcome.

TRANSITION AND DATA MODELING
The new general education curricular model is intended to go into place in 2022 for new Clemson first-time/first-year students.

For a period of time, we will need a “teach-out period” as students entering Clemson prior to 2022 are completing the general education curricular requirements under their catalogs of entry. As we transition from one set of learning outcomes and courses to the new set of global challenges learning outcomes and courses, we will need to closely watch submitted course schedules and student enrollments, and we may need to employ the use of course substitutions (with documentation) for students under older catalog years.
Appendix III contains a holistic view of our general education curriculum as it is currently taught, using the 2017-2018 academic year as a snapshot. Additionally, a Tableau dashboard has been created to allow semester-by-semester visualization of courses in the general education curriculum over time to assist with modeling.

ADDITIONAL ISSUES OR PROBLEMS TO BE ADDRESSED

As the university prepares to move away from a historic based academic budget model, department chairs desire a budget model that matches resources to needs and goals, especially with regard to the general education curriculum. When departments experience high student enrollments compared to the number of instructors available, they are often forced to make difficult decisions on what to prioritize, and course offerings for general education students (i.e. - students outside of the major) are often cut. Having clear financial/performance incentives connected to quality undergraduate teaching, assessment of learning, analytics, and enrollments is paramount.

Department chairs also desire a budget model with clear support for teaching assistants and/or graduate instructors. Some departments need teaching assistants only for lab courses. Others need teaching assistants to support a large grading load and still others use teaching assistants as instructors of record. Having a budget that connects resources to teaching assistant needs is important.

We need a clear institutional strategy for how to grow general education instructional FTEs with planned increases in student enrollment. Current widespread departmental reliance on revenues from summer and/or online general education courses to support departmental expenses is not sustainable in the long run. Some of these issues are described in Appendix I.E and many are already in the process of being addressed.

Concerns about transfer student progress toward degree will continue to need to be addressed as we create our global challenges offerings. Involving the departmental curriculum committees will be important, since they best understand the curricula of the major courses of study and where they might be opportunities to engage students in global challenges courses that also fulfill major requirements.

The General Education Committee and our thousands of faculty, academic staff, and students are poised to continue to seek improvements and to deliver the excellent education that is a hallmark of the Clemson experience.
APPENDIX I. AN UPDATE ON RE-ENVISIONING THE CLEMSON UNDERGRADUATE GENERAL EDUCATION CURRICULUM – DEC 2019
12/02/19 - To accompany a planned listening tour

[Please note: There may be discrepancies between the information in Appendix I and the proposal narrative of pages 1-9. Appendix I was an earlier draft, so the information above is more accurate.]

INTRODUCTION
The General Education Committee, now in its second year, has reviewed the work of the General Education Task Force and writes with continued purpose to re-envision the General Education curriculum at Clemson.

As the General Education Task Force noted in May 2018, a Clemson General Education curriculum should/could involve Ways of Knowing (i.e. – traditional disciplines of arts and humanities, social sciences, natural sciences, and mathematics), Communication (i.e. - composing, editing, oral/written/digital presentation), and Integration. Currently, Clemson’s General Education curriculum emphasizes Ways of Knowing and Communication, but falls short on the Integration component.

At the August 2019 General Education Program retreat, approximately 200 stakeholders were able to examine and make meaning from course assessment and survey data related to student learning. Qualitative feedback collected from attendees indicate that our current General Education curriculum needs improvement in encouraging students to practice application, engage in diversity, and take ownership for their intellectual development. Nearly all of the input can be summarized into two needs: improving our curriculum and truly supporting its delivery.

Our discussions over the past year-and-a-half have focused on these opportunities. We revised our student learning outcomes and assessment rubrics last year for all but the Integration components, and we supported a program of faculty development to focus on assignment design in courses that are part of the General Education curriculum. Now it is time to further discuss and implement curricular improvements.

WHAT DO WE PROPOSE?
To complete the steps taken in the May 2018 white paper from the General Education Task Force and the needs identified by colleagues in August 2019, the General Education Committee is working toward proposing the following curricular reform: implementing a Global Challenges integrative requirement in the General Education curriculum. To be clear, what looks like a single reform is in fact a multilayered approach to General Education revision, addressing a number of pedagogical and structural concerns raised over the past few semesters of collaborative work.

We propose that all Clemson students complete six credit hours in Global Challenges courses and that these credits are Clemson courses only. The General Education Committee has deliberated extensively about the how of this component, discussing two possible options.

1 More information on the document and the listening tour is available on the General Education Re-envisioning Blog: https://blogs.clemson.edu/undergraduate-studies/2020/02/14/globalchallenges/.
2 Link to the original white paper is available on the General Education Re-envisioning Blog: https://blogs.clemson.edu/undergraduate-studies/2018/05/04/whitepaper/. While you’re there, consider reading other posts to catch up on or reacquaint yourself with the work that has been completed or is underway.
1. All of these six hours of Global Challenges credits are at the 3000-level or above, in order to build on foundational coursework (i.e. – Ways of Knowing and Communication) and extend knowledge, skill and engagement throughout the curriculum. The Committee believes that this approach is the overall best one for student development and for a coherent curriculum.

2. At least three credit hours of Global Challenges curricula must be at the 3000-level or above, but the other three can be variable.

Clemson’s proposal creating the CT2 program in 2013 sought to address the need for 2000-level courses, and a 3000-level Global Challenges scaffold provides additional opportunity for curricular depth and breadth. It is imperative to remember that Global Challenges courses are part of a student’s true general education, designed to impart knowledge and skill for all students regardless of their major courses of study. The General Education Committee intends to work on an implementation plan and timeline to ensure that we have adequate course offerings and staffing within the next four years, while also acknowledging underlying resource and structure issues that must be addressed.

The Global Challenges proposal insures a shared experience of a distinctively Clemson perspective as part of the undergraduate education. The integrative nature of the Global Challenges requirement insures exposure to ethics, perspectives, and critical thinking in every Clemson graduate’s experience. Furthermore, this structure allows the space to integrate Clemson’s engaged learning portfolio (undergraduate research and creative inquiry, service-learning, international virtual exchange, etc.) into the Global Challenges curriculum and to allow transfer students to take advantage of our R01 institution’s resources not always available at other institutions.

This third category of the General Education curriculum calls on Clemson faculty to consider how they prepare their students for Global Challenges and to develop or revise courses to meet the new student learning outcomes. It builds upon our land-grant mission and pushes our curriculum to establish the relevancy that prepares all of our students for Global Challenges.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Student Learning Outcome Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication 6 hours</td>
<td>Oral Communication (3 hours or distributed)*</td>
</tr>
<tr>
<td></td>
<td>Written Communication (3 hours)*</td>
</tr>
<tr>
<td>Ways of Knowing 18-19 hours</td>
<td>Arts &amp; Humanities (6 hours)*</td>
</tr>
<tr>
<td></td>
<td>Social Sciences (6 hours)*</td>
</tr>
<tr>
<td></td>
<td>Natural Sciences (3-4 hours)*</td>
</tr>
<tr>
<td></td>
<td>Mathematics (3 hours)*</td>
</tr>
<tr>
<td>Global Challenges 5 hours</td>
<td>Courses with themes that connect to Global Challenges (6 hours)</td>
</tr>
</tbody>
</table>

Note: Student learning outcome areas depicted with a * are currently in operation. New student learning outcomes and assessment rubrics were passed effective fall 2019 and the new student learning outcomes are in the Undergraduate Catalog.

WHAT ARE GLOBAL CHALLENGES COURSES?
Global Challenges are a series of problems, issues, and/or enduring questions facing the world and its inhabitants. Although the title is a nod to the National Academy of Engineering (NAE) Grand Challenges category, Global Challenges do not belong to any one discipline or area, much like how the NAE’s Grand

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3 CT2 website: [https://www.clemson.edu/academics/programs/thinks2/](https://www.clemson.edu/academics/programs/thinks2/)
Challenges can be fully addressed only by interdisciplinary thinking. Global Challenges are problems faced locally, nationally, and globally. In this context ‘global’ does not imply an international focus, though it may. Global Challenges occur across multiple regions and spaces, including past, present, future, and virtual.

Global Challenges courses would involve thematic areas, including but not limited to:

- Environmental & Economic Sustainability
- Gender Equality
- Equitable Societies
- Peace & Conflict
- Intersections of Race, Class, and Gender
- Health & Wellness
- Value Systems
- Energy
- Culture & Diversity

Global Challenge courses involve multi-dimensional, multi-perspective explorations of a current or long-term issue facing the world and its inhabitants. These courses may look at such challenges from a primary lens, but should also incorporate multiple perspectives to illustrate that such problems have many approaches to solutions. Global Challenges courses should require reflection from the student, thereby expecting students to analyze their own perspectives while exploring other ways of viewing, analyzing, and approaching issues.

The U.N. Sustainable Development Goals (Appendix I.A) framework is a valuable source for defining and engaging Global Challenges.

WHAT DO GLOBAL CHALLENGES CONTRIBUTE TO INTELLECTUAL DEVELOPMENT?
Courses with Global Challenges themes help students with interdisciplinary, integrative, and systems thinking. They build upon skills and knowledge acquired in the Communication and Ways of Knowing areas and address what is lacking in our current curriculum and its scaffolding. Furthermore, they encourage student critical thinking and metacognition in analyzing their own perspectives with regard to the needs and perspectives of others. (See Appendix I.B for a brief table delineating these types of thinking.)

Many current Clemson courses – including current offerings that fulfill STS and CCA requirements - may be suitable for modification into Global Challenges courses.

STUDENT LEARNING OUTCOME(S)
The proposed student learning outcomes for Global Challenges courses are as follows:
1. Demonstrate critical thinking through analysis of global challenges.
2. Evaluate how varying perspectives influence global challenges.
3. Demonstrate integrative thinking through analyzing ethical consequences of global challenges.

Each Global Challenges course would connect to at least two of the three student learning outcomes.

Appendix I.C contains a link to the Clemson Global Competency Outcomes from which the language was derived, and Appendix I.D contains the draft rubric that will be used for assessment and development of Signature Assignments.

RESOURCES AVAILABLE TO SUPPORT CHANGE
The Division of Undergraduate Studies, the Office of Teaching Effectiveness & Innovation, and the Office of Global Engagement have appropriated resources to faculty development with regard to a Global Challenges curriculum. These include, but are not limited to:
• The development of a Global Engagement Institute, to parallel the successful CT2 Faculty Institute. Faculty will work on course design/redesign in a learning community with other faculty and will receive a stipend. This will begin in June 2020.
• The continuation of an Assignment Design workshop series, to assist faculty with designing/redesigning signature assignments. We have created an asynchronous, self-paced version of the series to be launched in Canvas in early spring 2020.
• We have created six Faculty Fellow positions, with Clemson faculty members poised to lead workshops, discussions, consultations, etc. around Global Challenges courses and assignments. This will begin in spring 2020.
• We have funding available to bring outside speakers to provide additional perspectives and best practices to our campus.

The General Education Committee and the Division of Undergraduate Studies leadership will continue to develop resources and address timelines and needs as the revision process unfolds. Appendix I.E. details some of the constraints and opportunities that have been identified through discussions with faculty and other stakeholders. We are optimistic that improvements are possible and look forward to the discussions with our colleagues on these ideas.

APPENDIX I.A. U.N. SUSTAINABLE DEVELOPMENT GOALS
APPENDIX I.B. INTELLECTUAL DEVELOPMENT FOR PROPOSED CURRICULUM

<table>
<thead>
<tr>
<th>Student Learning Outcome Areas</th>
<th>Intellectual Development:</th>
<th>Fulfilled By:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Organizational reasoning</td>
<td>Oral Communication course or cluster</td>
</tr>
<tr>
<td></td>
<td>Justification of ideas</td>
<td>Written Communication course</td>
</tr>
<tr>
<td></td>
<td>Point of view and purpose</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oral, written, digital, multimodal communication and presentation skills</td>
<td></td>
</tr>
<tr>
<td>Arts &amp; Humanities Social Sciences Natural Sciences Mathematics</td>
<td>Disciplinary thinking Application of concepts, theories, principles, models Coherent argumentative reasoning Interpretation, reinterpretation, and/or Criticism Application of social science concepts and evidence to explain human actions or behaviors Scientific reasoning Calculation and interpretation</td>
<td>Disciplinary courses</td>
</tr>
<tr>
<td>Global Challenges</td>
<td>Interdisciplinary and integrative thinking Metacognition, student self-awareness in relation to knowledge position Systems thinking</td>
<td>Courses developed/revised with Global Challenges themes</td>
</tr>
</tbody>
</table>

APPENDIX I.C. CLEMSON GLOBAL COMPETENCY OUTCOMES

The Clemson Global Competency Outcomes, created by a task force of Clemson faculty during the 2016-2017 academic year, were used in developing the Global Challenges student learning outcomes. The task force was established with the support of the Office of Global Engagement and responded to a need for articulated global learning, as identified through the ACE Internationalization Lab report.

Link: [https://www.clemson.edu/administration/global-engagement/documents/globalcompetencyoutcomes.pdf](https://www.clemson.edu/administration/global-engagement/documents/globalcompetencyoutcomes.pdf)

APPENDIX I.D. GLOBAL CHALLENGES RUBRIC

The proposed assessment rubric to accompany the Global Challenges student learning outcomes is below. The rubric provides the means for the student learning outcomes to be assessed, and they help to guide the creation of signature assignments within courses in the General Education curriculum. Each Global Challenges course will have an assignment that meets at least two of the rubric rows. (One assignment that addresses all six is not an expectation.)

<table>
<thead>
<tr>
<th>Analysis of Global Challenges</th>
<th>4 (Capstone)</th>
<th>3 (Milestone)</th>
<th>2</th>
<th>1 (Benchmark)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenge to be considered critically is stated clearly and described comprehensively, delivering relevant information necessary for thorough understanding.</td>
<td>Challenge to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.</td>
<td>Challenge to be considered critically is stated and described, with ambiguities.</td>
<td>Challenge to be considered critically is stated without clarification or description.</td>
<td></td>
</tr>
<tr>
<td>Influence of varying perspectives</td>
<td>Interprets experiences from the perspectives of one’s own and more than one worldview while demonstrating respect for other cultural groups.</td>
<td>Recognizes and uses dimensions of more than one worldview.</td>
<td>Identifies components of the worldview of others.</td>
<td>Catalogs one’s own cultural worldview only.</td>
</tr>
<tr>
<td>Analysis of Ethical Consequences</td>
<td>Insightfully and explicitly analyzes ethical consequences in a complex, multilayered context. Integrates an explanation of cross-relationships among the issues.</td>
<td>Analyzes ethical consequences fully and in a complex, multilayered context.</td>
<td>Identifies ethical consequences fully.</td>
<td>Identifies basic and obvious ethical consequences, but fails to grasp complexity or interrelationships.</td>
</tr>
<tr>
<td>Integrative learning (i.e. – “transfer” of knowledge)</td>
<td>Adapts and applies skills, abilities, theories, or methodologies gained in one situation to new situations to explore complex issues and extend knowledge.</td>
<td>Adapts and applies skills, abilities, theories, or methodologies gained in one situation to new situations to explore complex issues.</td>
<td>Connects skills, abilities, theories, or methodologies gained in one situation to a new situation to understand issues.</td>
<td>Identifies (in a basic way) skills, abilities, theories, or methodologies applicable to a situation.</td>
</tr>
<tr>
<td>Diversity and Inclusion</td>
<td>Insightfully and explicitly analyzes basic and complex advantages and challenges of diversity and inclusion in communities or organizations, while recommending strategies for improvement.</td>
<td>Insightfully and explicitly analyzes basic and complex advantages and challenges of diversity and inclusion in communities or organizations.</td>
<td>Identifies basic advantages and challenges of diversity and inclusion in communities or organizations.</td>
<td>Superficially or simplistically identifies advantages and challenges of diversity and inclusion in communities or organizations.</td>
</tr>
<tr>
<td>Global Challenges and Opportunities</td>
<td>Insightfully and explicitly analyzes significant and complex global challenges and opportunities in the natural and human world, while recommending strategies for improvement.</td>
<td>Insightfully and explicitly analyzes significant global challenges and opportunities in the natural and human world.</td>
<td>Identifies significant global challenges and opportunities in the natural and human world.</td>
<td>Superficially or simplistically identifies global challenges and opportunities in the natural and human world.</td>
</tr>
</tbody>
</table>

**Definitions:**

Complex, multi-layered context: The sub-parts or situational conditions of a scenario that bring two or more ethical dilemmas (issues) into the mix/problem/context for students’ identification.

Context: The historical, ethical, political, cultural, environmental, or circumstantial settings or conditions that influence and complicate the consideration of any issues, ideas, artifacts, and events.

Cross-relationships among the issues: Obvious or subtle connections between/among the sub-parts or situational conditions of the issues present in a scenario.

Perspective-taking: The ability to engage and learn from perspectives and experiences different from one’s own and to understand how one’s place in the world both informs and limits one’s knowledge. The goal is to develop the capacity to understand the interrelationships between multiple perspectives, such as personal, social, cultural, disciplinary, environmental, local, and global.

Strategies for improvement: A plan/plans of action or an approach/approaches designed to arrive at a solution.

Worldview: Worldview is the cognitive and affective lens through which people construe their experiences and make sense of the world around them. It involves metacognition on behalf of the learner, through student self-awareness in relating one’s own perspective to the perspectives of those in a position of knowledge.

Created and/or adapted in part from:

- Pathways: General Education for All. Virginia Tech. Retrieved from [https://www.pathways.prov.vt.edu/about.html](https://www.pathways.prov.vt.edu/about.html)
APPENDIX I.E. HISTORICAL CONSTRAINTS AND POSSIBILITIES

Some obstacles at Clemson University have reduced the space for past developments in the General Education program. Many of these are outside the purview of the General Education Committee, but are nonetheless real and substantial impediments to improvement. We itemize current and past obstacles, while recognizing that the proposal herein is a start for addressing some of these issues.

1. Overall, the General Education curriculum has seemed a low priority at Clemson. Students often see it only as a requirement for graduation and the University as a checkbox for SACSCOC accreditation.

2. Plans have not yet been communicated as to how Clemson will grow General Education course staffing needs with increases in student enrollment. There is a history of limited, rather than systemic, investment in staffing and structure, scattered across the University.
   a. Over time, we have developed a widespread departmental reliance on revenues from summer and/or online General Education courses to support departmental expenses and activities throughout the year that are not related to improving the General Education program.
   b. An uneven budget structure and assignment of teaching load creates problems with the two current General Education requirements that are conceptual but not departmental, i.e. Cross-Cultural Awareness (CCA) and Science, Technology and Society (STS).

3. There has been minimal investment in General Education pedagogy. The Office of Teaching Effectiveness and Innovation currently has only one permanent employee despite a student population of 25,000+. Dedicated FTE lines filled by those with classroom and pedagogical experience are necessary.

4. There are no common intellectual experiences or core that all Clemson University students share.4
   a. A substantial percentage of first-time, first-semester students arrive with AP, IB, and dual-enrollment credits which exempt them from Clemson General Education courses.
   b. Approximately one-third of our undergraduate population transfers to Clemson from other institutions with credits that meet General Education requirements, but the courses taken elsewhere do not always provide a solid foundation for a Clemson education.
   c. The net result is a system that moves undergraduate students through a checklist of General Education requirements such that some students take no General Education courses at the institution that will award their degrees.

5. The current structure for the General Education program does not support an integrated intellectual development of Clemson students as thinkers and citizens, largely handing that development to

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4 The Association of American Colleges & Universities helps to define, promote, and publicize a series of high-impact educational practices (HIPs). These HIPs are known to benefit undergraduate student learning and success. The literature defines common intellectual experiences as the following:

The older idea of a “core” curriculum has evolved into a variety of modern forms, such as a set of required common courses or a vertically organized general education program that includes advanced integrative studies and/or required participation in a learning community. These programs often combine broad themes—e.g., technology and society, global interdependence—with a variety of curricular and co-curricular options for students.

Link: https://aacu.org/leap/hips
courses in the majors. Many Clemson faculty continue to express to this Committee their shared 
frustrations at the need to cultivate students’ growth through a holistic curriculum. Because the 
integrative dimension of general education - which should offer students access to that bigger picture 
- is lacking, some Clemson faculty see this as a profound weakness of Clemson’s current General 
Education system.

For all these reasons, we see our task as one of making progress where possible while continuing to advocate 
for remediation of the obstacles in the long term. Change on this scale does not happen overnight, but the 
General Education Committee intends to continue to identify and mitigate challenges for the foreseeable 
future.
APPENDIX II. SACSCOC REQUIREMENTS FOR GENERAL EDUCATION

Standard 8.2

The institution identifies expected outcomes, assesses the extent to which it achieves these outcomes, and provides evidence of seeking improvement based on analysis of the results in the areas below:

b) Student learning outcomes for collegiate-level general education competencies of its undergraduate degree programs.

Standard 9.3

The institution requires the successful completion of a general education component at the undergraduate level that

a) is based on a coherent rationale.

b) is substantial component of each undergraduate degree program. For baccalaureate programs, a minimum of 30 semester hours or the equivalent.

c) ensures breadth of knowledge. These credit hours include at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural science/mathematics. These courses do not narrowly focus on those skills, techniques, and procedures specific to a particular occupation or profession.

### Table 1. Totals by College

<table>
<thead>
<tr>
<th>College</th>
<th># courses</th>
<th># sections</th>
<th># sections under 20*</th>
<th># instructors</th>
<th># stu enrolled**</th>
<th>credit hrs generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAH</td>
<td>163</td>
<td>646</td>
<td>302</td>
<td>219</td>
<td>15,150</td>
<td>42,977</td>
</tr>
<tr>
<td>AFLS</td>
<td>23</td>
<td>32</td>
<td>9</td>
<td>19</td>
<td>1,050</td>
<td>4,143</td>
</tr>
<tr>
<td>BSHS</td>
<td>41</td>
<td>220</td>
<td>89</td>
<td>88</td>
<td>8,864</td>
<td>26,376</td>
</tr>
<tr>
<td>Business</td>
<td>20</td>
<td>116</td>
<td>62</td>
<td>49</td>
<td>3,625</td>
<td>10,877</td>
</tr>
<tr>
<td>CECAS</td>
<td>24</td>
<td>60</td>
<td>14</td>
<td>29</td>
<td>1,775</td>
<td>6,168</td>
</tr>
<tr>
<td>Education</td>
<td>1</td>
<td>11</td>
<td>9</td>
<td>6</td>
<td>196</td>
<td>588</td>
</tr>
<tr>
<td>Honors</td>
<td>21</td>
<td>46</td>
<td>36</td>
<td>27</td>
<td>609</td>
<td>1,736</td>
</tr>
<tr>
<td>OGE</td>
<td>2</td>
<td>15</td>
<td>7</td>
<td>11</td>
<td>322</td>
<td>294</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>27</td>
<td>6</td>
<td>10</td>
<td>760</td>
<td>2,280</td>
</tr>
<tr>
<td>Science</td>
<td>86</td>
<td>621</td>
<td>95</td>
<td>196</td>
<td>24,183</td>
<td>82,961</td>
</tr>
<tr>
<td>Totals</td>
<td>383</td>
<td>1,794</td>
<td>629</td>
<td>654</td>
<td>56,534</td>
<td>178,400</td>
</tr>
</tbody>
</table>

*Did not count lab sections. **Non-duplicated for students enrolled in lecture course with accompanying lab. However, those enrolled students are included in credit hours generated.

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6 Using 2017-2018 as a snapshot. Data include actual student enrollments in fall, spring, and summer terms. Although more courses may be listed in the Undergraduate Catalog as meeting General Education competencies, these numbers are pulled from the courses taught in AY17-18 and which actually enrolled students.
FACULTY RANKS OF INSTRUCTORS OF RECORD IN GENERAL EDUCATION COURSES

Who is teaching general education?

- T/T (Assistant, Associate, Full, Emeritus)
- Lecturer/Senior Lecturer
- Graduate Student
- Staff
- Adjunct Faculty
- Temporary (Visiting Asst Prof/Visiting Assoc Prof/Visiting Prof, Visiting Scholar)
- Other (Post Doctoral Fellow, Professor of Practice, Research Asst Professor)
**GENERAL EDUCATION BY COMPETENCY AND COLLEGE**

Table 2. General Education Teaching Loads by Competency, College, and Semester.
(Legend: c=# courses; s=# sections; i=# instructors; e=# students enrolled)

<table>
<thead>
<tr>
<th>Fall 2017</th>
<th>Arts/Humanities Competency</th>
<th>Social Sciences Competency</th>
<th>Cross-Cultural Awareness Competency (non-duplicated)</th>
<th>Communication (Composition) Competency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>c</td>
<td>s</td>
<td>i</td>
<td>e</td>
</tr>
<tr>
<td>AAH</td>
<td>51</td>
<td>187</td>
<td>87</td>
<td>4830</td>
</tr>
<tr>
<td>AFLS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>BSHS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Business</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Honors</td>
<td>4</td>
<td>8</td>
<td>5</td>
<td>133</td>
</tr>
<tr>
<td>OGE</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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(Legend: c=# courses; s=# sections; i=# instructors; e=# students enrolled)

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