The following pages contain background readings and information that should be useful for attendees preparing for the general education open discussions (Nov 6 & 9).

They are short pieces intended to elicit your thinking about this main question:

> *"What knowledge and skills should an educated person have, regardless of major?"*

Contents

Clemson Historical Perspectives (pages 2-3)

Dr. Bob Kosinski (Biological Sciences) prepared an outline of the past and present state of Clemson's general education plan. It also includes the general education requirements from our institutional accrediting body, SACSCOC.

Clemson Competency Statements (page 4)

These are the current statements on undergraduate general education competencies.

Skills and Knowledge (page 5)

What are the main skills and knowledge that universities include in their general education plans? This page provides an excerpt from a full report on this topic. It is intended to help faculty think about not only course-based content, but skills that could or should be part of general education.

Additional Important Links

Undergraduate Studies General Education Website

Provides copies of this document and will be populated with other resources as we go through the general education review process.

Undergraduate Studies General Education Blog

Those unable to attend face-to-face discussions or who have additional ideas and comments can participate in discussions via the blog.

Invitation and Information

This is a copy of the Spark page originally sent to you as an invitation to the open discussions.

RSVP link

Those seeking to attend the open discussions on November 6 and 9 should provide an RSVP at the link above. (Food will be served.)

Clemson Historical Perspectives

Should Clemson Revise Its General Education? If So, How?

The psychologist B. F. Skinner observed, "Education is what survives after what has been learned has been forgotten." There is broad agreement among academics that a college education should supply more than expertise in a narrow area. We expect that a college graduate, no matter what his or her major, should have certain skills such as ability to analyze complex problems and plan projects, should be able to communicate, should have certain attitudes such as a preference for respectful discourse based on evidence, and should also have at least a basic knowledge of several areas such as the humanities, natural and social science, and mathematics.

Accrediting agencies agree. SACSCOC (in its 2012 *The Principles of Accreditation*, p. 19) mandated that Clemson must maintain and assess a General Education component in each degree program:

In each undergraduate degree program, the institution requires the successful completion of a general education component at the collegiate level that (1) is a substantial component of each undergraduate degree, (2) ensures breadth of knowledge, and (3) is based on a coherent rationale. For degree completion in associate programs, the component constitutes a minimum of 15 semester hours or the equivalent; for baccalaureate programs, a minimum of 30 semester hours or the equivalent. These credit hours are to be drawn from and include at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural science/mathematics. The courses do not narrowly focus on those skills, techniques, and procedures specific to a particular occupation or profession.

Later (p. 29) it says:

The institution identifies college-level general education competencies and the extent to which students have attained them.

This is a reasonable standard. We ought to be able to identify the skills and knowledge we're teaching the students in our Gen Ed courses, and we should be able to demonstrate how well they've mastered them.

Where Clemson Gen Ed Is Today, and
Why It Can't Stay There Much Longer

Our current Gen Ed originated in 2004, when a task force recommended the creation of 22 competencies, which would be assessed by a student ePortfolio in which the students chose the artifacts they wanted to include. This was reduced to 19 competencies in 2008 and to 9 competencies in 2009, still assessed by the ePortfolio. The competencies, which we still have today, are:

Course-Based Competencies
- Communication
- Arts and Humanities
- Mathematics
- Natural Sciences
- Social Sciences
- Cross-Cultural Awareness
- Science and Technology in Society

Distributed Competencies
- Communication
- Critical Thinking
- Ethical Judgment

The course-based competencies are satisfied by taking courses from an approved list for each competency (for example, World Literature or Solar System Astronomy). The distributed competencies might be different in each discipline, so each department chooses courses that they think will teach the competency in their "Gen Ed Checklists." Communication is considered so pivotal that it is part of both groups (including ENGL 1030 and a COMM course and/or courses in the discipline that address communication skill).

ePortfolios were unpopular with the faculty, and the ePortfolio requirement was abolished in spring of 2014. Then Clemson had a problem. Without ePortfolios, how could Clemson demonstrate to SACSCOC that it was assessing Gen Ed?

In fall of 2014, as a temporary measure, Clemson started a pilot program of a new assessment method. In this program, volunteer Gen Ed courses would submit all examples of a particular student artifact (for example, a particular lab report), and the artifacts would be evaluated for meeting the competency by paid faculty evaluators. Note that instead of assessing artifacts chosen by the students, the plan was to assess artifacts chosen by the *instructors*. Having served as a both a volunteer and an evaluator in this program, I can tell you that this system works fairly well. By looking at a large number artifacts from the same assignment, the evaluators can see where the students are strong and weak.

But the coverage of our courses is very small. In fall 2017, there will be 33 volunteer courses with 105 sections. In contrast, in 2015-2016, Clemson taught 1580 sections of Gen Ed courses in the course-based competencies. Most Gen Ed courses have not been assessed at all since ePortfolios disappeared. This cannot go on indefinitely. We cannot keep assessing the same 33 courses over and over.

And since we must soon make decisions about Gen Ed, what about its content? Do our nine competencies represent what the faculty wants Gen Ed to accomplish today? What knowledge and skills should any educated person have, regardless of major? Will all competencies continue to be taught by courses or, perhaps, could extracurricular activities teach competencies as well? But we have to keep in mind that whatever strategy we choose, we have to be able to assess its success.

The plan of the Gen Ed Task Force is to determine what the faculty wants as the learning objectives of Gen Ed, go from there to rubrics to be used in evaluation of student work products, and from there to an assessment protocol that will be implemented across all Gen Ed courses, not just volunteer courses. We hope to get a new Gen Ed approved by the University Undergraduate Curriculum Committee in 2019-2020.

This long process starts with faculty input now.

Bob Kosinski
Biological Sciences
25 October 2017

Clemson Competency Statements

A. Arts & Humanities

Competency: Demonstrate an ability to analyze and/or interpret the arts and humanities.

B. Mathematics

Competency: Demonstrate mathematical literacy through solving problems, communicating concepts, reasoning mathematically, and applying mathematical or statistical methods, using multiple representations where applicable.

C. Natural Sciences

Competency: Demonstrate the process of scientific reasoning by performing an experiment and thoroughly discussing the results with reference to the scientific literature, or by studying a question through critical analysis of the evidence in the scientific literature.

D. Social Sciences

Competency: Describe and explain human actions using social science concepts and evidence.

E. Cross-Cultural Awareness

Competency: Explain how aspects of culture are integrated into a comprehensive worldview; and then demonstrate how culture influences human behavior.

F. Science and Technology in Society

Competency: Demonstrate an understanding of issues created by the complex interactions among science, technology, and society.

G. Communication

Competency: Effective oral and written communication is the means by which all competencies will be demonstrated.

H. Critical Thinking

Competency: Demonstrate the ability to assemble information relevant to a significant, complex issue, evaluate the quality and utility of the information, and use the outcomes of the analysis to reach a logical conclusion about the issue.

I. Ethical Judgment

Competency: Demonstrate the ability to identify, comprehend and deal with ethical problems and their ramifications in a systematic, thorough and responsible way.

Skills and Knowledge

The following is an excerpt from a Hart Research Associates Survey on trends in general education design. (Full report available here: https://www.aacu.org/publications-research/publications/recent-trends-general-education-design-learning-outcomes-and)
For our purposes, it is helpful to see the broad landscape of how other institutions are valuing skills and knowledge in their general education plans.

Proportion of Institutions That Have Learning Outcomes for All Students That Address Specific Skills and Knowledge Areas
(among institutions that have a common set of learning outcomes for all students)[1]

	2008 %	2015 %
Writing skills	99	99
Critical thinking and analytic reasoning skills	95	98
Quantitative reasoning skills	91	94
Knowledge of science	91	92
Knowledge of mathematics	87	92
Knowledge of humanities	92	92
Knowledge of global world cultures	87	89
Knowledge of social sciences	90	89
Knowledge of the arts	N/A	85
Oral communication skills	88	82
Intercultural skills and abilities	79	79
Information literacy skills	76	76
Research skills and projects	65	75
Ethical reasoning skills	75	75
Knowledge of diversity in the United States	73	73
Integration of learning across disciplines	63	68
Application of learning beyond the classroom	66	65
Civic engagement and competence	68	63
Knowledge of technology	61	49
Knowledge of languages other than English	42	48
Knowledge of American history	49	47
Knowledge of sustainability	24	27