The University of Alabama
Compliance Certification Report

3.5.1 General Education Competencies

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

Judgment of Compliance

In Compliance

Narrative

The University of Alabama (UA) has established core curriculum/general education requirements, which apply to all undergraduate students. This curriculum, developed in 1982, was revised in 1998 to meet requirements of the state-legislated Articulation and General Studies Committee (AGSC) that are common among all state-supported colleges and universities. UA's core curriculum encompasses more than the state general education areas adding, for example, both writing and computer courses as requirements.

In summary, the University’s core curriculum/general education requirements set forth the following:

- Competency in written composition (6 hours);
- Ability to write coherent, logical and carefully edited prose (6 hours);
- Ability to use or write appropriate computer programs OR competency in a foreign language (6 hours);
- Appreciation for the humanities and fine arts, including the required completion of courses in both fine arts and literature (12 hours);
- Appreciation for history and social & behavioral sciences, including the required completion of a course in history (12 hours);
- Appreciation for the natural sciences and mathematics, including the required completion of courses in both areas (11 hours);

The College of Engineering has modified general education requirements, approved in 1998, as a result of professional course requirements dictated by their discipline-specific accrediting body, ABET. In summary, the College of Engineering requirements are identical to the University’s except in the following categories:

- Appreciation for the humanities and fine arts (9 hours). This is three hours less than the University requirement and there is no requirement for specific areas within the category.
- Appreciation for history and social & behavioral sciences (9 hours). This is three hours less than the University requirement and there is no requirement for specific areas within the category.
- Appreciation for the natural sciences and mathematics (12 hours). This is one hour more than the University requirement; major requirements result in engineering students taking courses in both areas.

The core curriculum/general education requirements apply to all students at UA, including those enrolled in online programs.
Core Curriculum Oversight

The Core Curriculum Oversight Committee (CCOC), a standing committee composed of faculty representing all colleges/schools with undergraduate programs, students, and a Faculty Senate representative, is responsible for monitoring the implementation of the core curriculum. The CCOC has the power to grant, deny, or revoke core designations assigned to courses proposed or maintained by the various academic divisions. An example of how the committee completes its charge can be found in committee minutes from August 2013.

The CCOC uses an electronic system for reviewing and approving new course submissions for inclusion into the core curriculum, and uses the same system for reviewing current core-designated courses on a five year cycle, including those taught on-line. The committee developed 11 evaluation templates, one for each area represented in the core: freshmen composition, fine arts, foreign language, history, humanities, literature, mathematics, natural science, social and behavioral science, computer, and writing. The templates set forth requirements for course content that stem from the tenets of the core curriculum. For example, all fine arts courses must develop a better understanding of the nature and validity of artistic expression through global and multi-cultural perspective, historical and cultural content, creative processes, and aesthetics and critical thinking. All literature courses, in addition to covering multiple genres over a broad historical/literary period, must require students to analyze, synthesize, and evaluate knowledge. The CCOC evaluates new courses for consideration, or current courses under review, against these templates to determine if the requested core designation should be assigned or continued.

Assessment – Department Level

The core curriculum is the basis for a rigorous academic experience at the University that the faculty identifies as essential for a college-educated individual. As such, academic programs utilize one or more areas of the core curriculum as basic knowledge necessary for their upper level courses. For example, requirements for advancing to the upper division in the College of Commerce and Business Administration include specific economic and mathematics core courses. Some programs require students to earn a grade higher than passing in the prerequisite core curriculum courses before registering for specific courses in the major. For example, the Capstone College of Nursing requires students to have a grade point average of 2.75 in required core natural science courses, which include CH 104 Introductory Chemistry and CH 105 Introductory Organic Chemistry.

Thus to be successful in major courses, students must learn the basic knowledge and skills provided by the core curriculum. Under this premise, academic departments where core curriculum courses are housed are directly involved in the assessment of learning within the core curriculum. Some departments, such as English and Mathematics, have full or major responsibility for areas of the core curriculum; other areas of the core are more generally distributed across departments throughout the University (e.g., social and behavioral sciences, or humanities). Importantly, the UA writing requirement is intended to be an integral part of each undergraduate program. However, it is recognized and appreciated that in all cases substantial core curriculum learning assessments occur at the departmental level across the University insuring a broad, campus-wide perspective by the most knowledgeable subject matter experts directly.

To assess, program directors and department chairs link undergraduate program student learning outcomes data to the specific areas of the core curriculum using WEAVE Online, the campus tool adopted to track learning outcomes. WEAVE reports are comprehensive documents, analyzing a broad spectrum of learning outcomes for a degree program. Examples of full WEAVE reports are linked here. Full reports provide information about the ability of students to achieve learning outcomes and they can be filtered to focus on the outcomes that target the knowledge and skills obtained in core curriculum courses. The filtered learning outcomes can be categorized by curriculum area, using the same areas represented by the Core Curriculum Oversight Committee’s evaluation templates. Examples of such analyses provide insightful data such as: the fraction of senior Nursing majors demonstrating leadership in their senior-level clinical courses as a result of knowledge or skills gained in core social/behavioral science courses; or the fraction of Food and Nutrition majors able to identify the metabolic inter-relationships of macro- and micro-nutrients in professional courses as a result of knowledge gained in natural science courses.
Assessment – University Level

At the University level, the National Survey of Student Engagement (NSSE) and the UA Graduating Senior Survey[14] are used as indirect measures of student learning. Results of these surveys are made available to groups such as the Council of Assistant and Associate Deans, Council of Deans, and the Assessment Council.

The NSSE provides an indirect measure of how students spend their time and what they gain from the college experience. Participating institutions receive a report that compares their students’ responses to those of peer institutions. The NSSE question (#11) that asks “To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?” allows students to respond very little, some, quite a bit, or very much and provides information about students’ perceptions of their attainment of knowledge in areas aligned with the core curriculum. An analysis of data for responses to Question 11 by UA freshmen and seniors compared to peer institutions for 2010, can be viewed here.[15] (It should be noted that the NSSE instrument changed in 2011 and UA participated in the pilot in subsequent years.) The data analysis reveals that UA freshmen were significantly higher than the peer group in nine areas, and UA seniors were significantly higher in all of the areas except one.

Each year the Graduating Senior Survey asks, “To what extent do you think your education at UA contributed to your knowledge, skills, and/or personal development in each of the following areas?” Students are asked to choose among the following responses: very much, somewhat, very little, not at all, or don’t know. The areas were designed to be similar to those in Question 11 of the 2010 NSSE and include skills in: writing, listening, mathematics, scientific method of inquiry, analytics, computer, public speaking, information gathering, and team work. Since many of these areas closely align with the core curriculum, they provide an insight to students’ perception of attaining general education competencies in those areas. The percentage of seniors who responded that their education at UA very much or somewhat contributed to their knowledge, skills, or personal development in those core curriculum related areas aggregated from 2002 to 2012 are presented below.

### Percentage of Students Who Responded in the 2002 to 2012 Senior Surveys that the Education They Received at UA Either Very Much or Somewhat Contributed to Their Knowledge, Skills or Personal Development in Specific Areas

<table>
<thead>
<tr>
<th>Area of knowledge or skills</th>
<th>% Students</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing skills²</td>
<td>91.5</td>
<td>9591</td>
</tr>
<tr>
<td>Listening skills</td>
<td>89.8</td>
<td>9573</td>
</tr>
<tr>
<td>Comprehension skills</td>
<td>93.6</td>
<td>9562</td>
</tr>
<tr>
<td>Mathematical skills²</td>
<td>66.5</td>
<td>9573</td>
</tr>
<tr>
<td>Scientific method of inquiry²</td>
<td>76.4</td>
<td>9565</td>
</tr>
<tr>
<td>Analytic skills²</td>
<td>95.0</td>
<td>9566</td>
</tr>
<tr>
<td>Computer skills²</td>
<td>85.2</td>
<td>9576</td>
</tr>
<tr>
<td>Public speaking skills</td>
<td>82.6</td>
<td>9570</td>
</tr>
<tr>
<td>Information gathering skills</td>
<td>95.2</td>
<td>9573</td>
</tr>
<tr>
<td>Functioning as part of a team</td>
<td>91.5</td>
<td>9557</td>
</tr>
<tr>
<td>Appreciation of racial equity</td>
<td>70.9</td>
<td>6793</td>
</tr>
</tbody>
</table>

1Data for the 2007 Senior Survey are not included due to technical issues.

2Directly related to one or more areas of the core curriculum.

Some conclusions drawn from this data:

- Over 90% of seniors believed that their education at UA helped prepare them to write better - a skill that is addressed in freshman composition courses and the upper level writing courses that are a part of the core curriculum. Because the writing designation is considered a core element distinctive to the University, students may not transfer writing courses into UA, thus giving important weight to this finding.

- Analytical skills are required throughout courses in the core curriculum and upper level courses in all
programs at the University. Almost all (95%) of the seniors indicated that their education had contributed to their analytical abilities.

- Students may choose either foreign language or computer courses to meet the core curriculum requirements of UA. Senior-level students (85%) reported an improvement in their computer skills while studying at UA.
- Over 75% of seniors indicated that their education helped improved their knowledge, skills and personal development of the scientific method and 66% indicated the same for mathematical skills.

Focusing slightly more on mathematics and bifurcating the data time-wise reveals that the percentage of seniors who indicated their UA education contributed to their mathematical skills increased over the time period evaluated: 63.3% for the 2002 to 2006 subgroup compared to 69.0% for the 2008 to 2013 subgroup. This observation maps directly to an initiative launched in 2001 where the University opened its Mathematics Technology Learning Center (MTLC) with computer-based instruction allowing students to work at their own pace and receive one-on-one faculty instruction as needed. [16] Students’ success rates [17] for classes completed in the MTLC is greater than the rate for math courses completed in the traditional classroom. While some seniors in the 2006 class would have had access to the lab, by 2008 most seniors who took their mathematics general education classes at UA had the benefits of the lab.

General Education Competencies

In the Fall of 2013, UA began an effort to improve its process for assessing the attainment of college-level general education competencies that all undergraduates should attain regardless of academic major. Although comprehensive activities were occurring at both the department and University levels, the CCOC desired a more intentional and rigorous assessment of the core curriculum. To that end, the Provost appointed and charged a General Education Subcommittee to refine the University’s general education competencies and the process for assessing them. Four individuals from the CCOC and representing different academic disciplines comprised the subcommittee. The General Education Subcommittee proposed the following three phase action plan to the full CCOC membership and subsequently piloted the plan in the Spring 2014 semester.

Phase 1 - Identify general education competencies within the four curricular categories defined by the state of Alabama’s Articulation and General Studies Committee. Those four areas are Written Composition (Area I), Humanities and Fine Arts (Area II), Natural Sciences and Mathematics (Area III), and History, Social and Behavioral Sciences (Area IV). For each area the subcommittee formulated competencies, as shown below.

**Area I (Composition).** Upon completion of the general education courses in English composition, students will be able to:

- Demonstrate the ability to write coherent, logical, edited prose.
- Demonstrate the ability to use the words and ideas of others appropriately and to give appropriate credit for such use.

**Area II (Humanities and Fine Arts).** Upon completion of the general education courses in humanities and fine arts, students will be able to:

- Demonstrate the ability to deal critically with questions of value, ethics, or aesthetics in the humanities.
- Demonstrate an understanding of changing perspectives in the arts and humanities traditions.

**Area III (Natural Science and Mathematics).** Upon completion of the general education courses in mathematics, students will be able to:

- Demonstrate the ability to analyze, synthesize, and evaluate quantitative data.
- Demonstrate an understanding of quantitative processes of inquiry and analysis.

Upon completion of the general education courses in natural sciences, students will be able to:

- Demonstrate the ability to analyze, synthesize, and evaluate evidence in the natural sciences.
• Demonstrate an understanding of scientific methods and data analysis.

Upon completion of a natural sciences course with a laboratory experience, students will be able to:

• Demonstrate proficiency in experimental science by: making observations, understanding the fundamental elements of experimental design, generating and analyzing data using appropriate quantitative tools, using abstract reasoning to interpret data and relevant formulae, and testing hypotheses with scientific rigor.

• Demonstrate the ability to conduct scientific research, including designing experiments, analyzing data, and drawing evidence-based conclusions.

**Area IV (History, Social and Behavioral Sciences).** Upon completion of the general education courses in social and behavioral sciences, students will be able to:

• Demonstrate critical thinking in the evaluation of conclusions drawn from social and behavioral research.

• Demonstrate an understanding of the importance of intercultural knowledge in the study of human and social behavior.

Upon completion of the general education courses in history, students will be able to:

• Demonstrate an understanding of historical methods of inquiry.

• Demonstrate critical thinking in assessing competing historical interpretations.

**Phase II** – Using the general education competences developed in Phase I, assess randomly selected courses representative of Areas I through IV as a pilot study. The General Education Subcommittee developed a crosswalk approach to capture the relationship between each proposed competency (i.e., student learning outcome), course objectives, measurements used, and results (data). Representative results are attached. However, the CCOC quickly determined that the pilot did not meet the expectations of the committee.

**Phase III** - Examine the pilot data and competencies measured, and develop overall non-discipline specific general education competencies that can be measured throughout the core curriculum courses. This phase has yet to be addressed, but is on the CCOC’s agenda for 2014–15.

What the General Education Subcommittee efforts revealed, overall, is that the pilot study did not provide the type of information needed for a rigorous analysis of the University’s core curriculum. The need for a more rigorous, meaningful, and informative process led to the following recommendations by the General Education Subcommittee:

• Create a standing General Education Faculty Committee (GEFC) composed of faculty typically assigned to teach general education courses;

• Charge the GEFC with the responsibility to generate and adopt non-discipline specific competencies that indicate general knowledge and content abilities common to all graduates, such as writing, information literacy, quantitative reasoning, scientific reasoning, critical thinking and oral communication.

• Require the GEFC to submit an annual report to the Provost.

In summary, as evidenced by the information presented above, UA is committed to providing a rigorous and comprehensive general education knowledge base for all undergraduate students. Faculty dedication to and involvement with the diverse disciplines in the core curriculum reflect the UA mission and core values in undergraduate education as the University works in a spirit of continuous improvement.
1. General Education Requirements (PDF)
2. AGSC General Studies Core (PDF)
3. Core Requirements for Engineering (PDF)
4. ABET Webpage (PDF)
5. Core Curriculum Oversight Committee (PDF)
6. CCOC Minutes August 2013 (PDF)
7. Core Designation Template (PDF)
8. CCOC Guidelines (PDF)
9. CCCBA Requirements (PDF)
10. Nursing Requirements (PDF)
11. Electrical and Computer Engineering DAR (PDF)
12. Food and Nutrition DAR (PDF)
13. SLO Examples (PDF)
14. UA Graduating Senior Survey (PDF)
15. NSSE Findings 2010 (PDF)
16. News Release – Math Center (PDF)
17. MTLC Report (PDF)
18. General Education Competencies Crosswalk (PDF)