

**ASSESSMENT SUBCOMMITTEE****ANNUAL REPORT****2014-2015 Academic Year****CEP Assessment Subcommittee**

The responsibilities of the Assessment Committee are to:

1. Provide guidance on all matters related to student learning assessment, including policy development around assessment of student learning at the classroom, course, program, general education, and institutional levels.
2. Provide counsel to departments, schools, and Academic Senate committees on matters relating to student learning assessment. Review program assessment plans and reports and make recommendations to improve student learning. Prepare periodic reports on the status of student learning assessment within academic programs.
3. Make recommendations to CEP regarding the assessment of the general education program, including recommendations based on the review of general education courses and categories.
  - a. Develop and maintain guidelines and procedures for both periodic comprehensive assessment and continual ongoing assessment of learning outcomes for each general education category.
  - b. Evaluate the results of these assessments and make recommendations to CEP based on these results.
4. Monitor the University's progress in implementing its assessment plans, including those resulting from regional re-accreditation review, and promote the use of assessment results in planning activities.

**PROCEDURES AND ISSUES ADDRESSED BY THE ASSESSMENT COMMITTEE AY2014-15****I. Assessment Report Outcomes:****Update on Assessment Reports for majors in the School of Social Sciences and the School of Business**

Assessment Reports for majors in Social Sciences and Business were reviewed by AC throughout the academic year. The Assessment Committee received and reviewed all but one of the assessment reports that were due November 2014.

**Social Sciences**

1. Anthropology
2. Business Economics
3. Chicano/Latino Studies
4. Cognitive Sciences/Psychology
5. Economics
6. International Studies
7. Political Science (not yet received)
8. Quantitative Economics
9. Social Policy and Public Service
10. Sociology

**Business:**

1. Business Administration

## II. Upcoming Deadlines for Schools to submit Assessment Reports

The Assessment Reports from majors in the School of Engineering and the School of Social Ecology are due November 1, 2015 (check).

- B.S. in Aerospace Engineering
- B.S. in Biomedical Engineering/B.S. in Biomedical Engineering for premeds
- B.S. in Chemical Engineering
- B.S. in Civil Engineering
- B.S. in Computer Engineering
- B.S. in Computer Science and Engineering
- B.S. in Engineering
- B.S. in Environmental Engineering
- B.S. in Materials Science Engineering
- B.S. in Mechanical Engineering
- B.S. in Software Engineering
- B.A. in Social Ecology
- B.A. in Urban Studies
- B.A. in Criminology, Law and Society
- B.A. in Psychology and Social Behavior
- B.A. in Policy, Planning and Design

The Assessment Committee has asked each program listed above to assess at least one of the learning outcomes in the major. Programs have been asked to incorporate prior feedback AC provided for previous assessment report submissions. Assessment Reports are expected to address and show evidence of how previous assessment work findings have been used to improve student learning, to describe the process for reviewing previous assessment evidence and the role of the faculty. For more information on the Assessment Report Scoring Guide, see Appendix A.

## III. GE Assessment AY 2014-2015: Assessment of GE II (Science and Technology) and GE III (Social Sciences) will begin Fall, 2014.

AC members reviewed materials from approximately one-third of all GE II and III courses to determine whether course learning outcomes in the category were met by students who completed the course. AC asked instructors of GE II and GE III courses to submit assignment, quiz or exam questions that test for GE II or III course specific learning outcomes (see below). AC did not assess student work to determine whether course learning outcomes are being met. Rather, instructors were asked to submit student grades for assignments and tests that measured the course learning outcome, only.

The Assessment Committee Coordinator provided the following summary report of AC's GE II and III review.

### General Education Category II: Science and Technology

GE II Learning Outcomes: After completing a Category II GE course, successful students will be able to do ALL of the following:

1. Demonstrate an understanding of fundamental laws of science OR principles underlying design and operation of technology.
2. Demonstrate an understanding of natural phenomena, related to the course discipline, that surround and influence our lives.
3. Be able to do ONE OR MORE of the following:
  - a. Describe how scientists within the course discipline approach and solve problems.

- b. Apply scientific knowledge/theoretical models used in the course discipline to solve problems and draw conclusions using qualitative and quantitative analysis of data and concepts.
- c. Explain the scope and limitations of scientific inquiry and the scientific method as evidenced in the course discipline.

AC Review Process: In Fall 2014, the Assessment Committee sent a memo to every instructor teaching a GE Category II course to submit a report answering the following questions:

1. Identify your name, GE course, and number of students enrolled.
2. To what extent do your current course outline and course assignments correspond with the learning outcomes for your GE course?
3. Summarize the extent to which you felt students successfully met the learning outcomes. Please also provide a percentage of how many students successfully met each outcome. For example, 80% of students achieved learning outcome 1, 70% of students achieved learning outcome 2, 60% of students achieved learning outcome 3, etc.
4. Based on the results, please describe how you plan to use the results to improve the course.

Requests were sent to 46 instructors, and reports were received from 17 instructors, for an overall response rate of 37%.

Methods Used to Assess Courses: In the vast majority of GE II courses, instructors identified questions on their midterm and final exams corresponding to the learning outcomes for the category. Due to large class sizes in GE II courses, these exams tended to be multiple-choice. Instructors calculated the percentage of students answering the relevant exam questions correctly.

#### Assessment Results:

1. Learning Outcome #1- The percentage of students successfully meeting this outcome ranged from 63% to 95%, with an average percentage of 79%.
2. Learning Outcome #2- The percentage of students successfully meeting this outcome ranged from 60% to 95%, with an average percentage of 78%.
3. Learning Outcome #3- The percentage of students successfully meeting this outcome ranged from 50% to 95%, with an average percentage of 77%.

#### How Results Will Be Used to Improve Courses:

Based on assessment results, instructors identified a variety of strategies for improving GE II courses. These strategies include:

- Spend more lecture time focusing on the learning outcomes.
- Incorporate more active teaching techniques (e.g. pre-lecture quizzes, worksheets).
- Spend more lecture and discussion time on the concepts students struggle with.
- Use clicker questions to facilitate understanding.
- Make more explicit to the students what the learning outcomes are for the course.
- Experiment with incorporating inquiry-based learning into discussion sections and encourage field trips

#### Summary:

Instructors reported that their course outline and objectives corresponded closely with the learning outcomes for the category. Moreover, among the courses sampled, most students successfully met the learning outcomes for the category. Instructors identified a variety of strategies for improving their GE courses.

#### General Education Category III: Social and Behavioral Sciences

GE III Learning Outcomes: After completing a course in this category, successful students should be able to:

1. Demonstrate knowledge and understanding of the theories, sources, and interpretations of human behavior and organization (e.g., individual, societal and institutional).

2. Do at least one of the following:
  - a. Demonstrate an understanding of contemporary and historical perspectives on individual or collective human behavior (e.g., individual, social movements and institutions).
  - b. Understand and explain the scientific/interpretive methods used in the acquisition of knowledge and the testing of competing theories, in the social and behavioral sciences.

Review Process: In Fall, 2014, the Assessment Committee sent a memo to every instructor teaching a GE Category III course to submit a report answering the following questions:

1. Identify your name, GE course, and number of students enrolled.
2. To what extent do your current course outline and course assignments correspond with the learning outcomes for your GE course?
3. Summarize the extent to which you felt students successfully met the learning outcomes. Please also provide a percentage of how many students successfully met each outcome. For example, 80% of students achieved learning outcome 1, 70% of students achieved learning outcome 2, 60% of students achieved learning outcome 3, etc.
4. Based on the results, please describe how you plan to use the results to improve the course.

Requests were sent to 51 instructors, and reports were received from 24 instructors, for an overall response rate of 47%.

Methods Used to Assess Courses: In the vast majority of GE III courses, instructors identified questions on their midterm and/or final exams corresponding to the learning outcomes for the category. Due to large class sizes in GE III courses, these exams tended to be multiple-choice. Instructors calculated the percentage of students answering the relevant exam questions correctly.

Assessment Results:

1. Learning Outcome #1- The percentage of students successfully meeting this outcome ranged from 70% to 95%, with an average percentage of 82%.
2. Learning Outcome #2- The percentage of students successfully meeting this outcome ranged from 60% to 95%, with an average percentage of 81%.

How Results Will Be Used to Improve Courses: Based on assessment results, instructors identified a variety of strategies for improving GE III courses. These strategies are:

- Incorporate materials into lecture to stimulate deeper thinking about the concepts.
- Refine assessments so they more directly align with learning outcomes.
- Increase the number of examples of applying theory to real world examples in lecture.
- Offer more activities that ask the students to apply the theory to what they are reading and viewing, to come up with specific examples of the application.
- Emphasize discussion of topics students find challenging.
- Additional use of formative assessments.
- Make GE learning outcomes more explicit to students.
- Add questions to exams reflecting concepts students find challenging.
- Develop more homework and examination questions that ask students to explicate precisely the way(s) in which their proposed solution to a given problem is appropriate and/or the way(s) in which alternative solutions would fail. This method would by definition place additional work on teaching assistants.
- Incorporate longer essay questions on the exam.
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#### **IV. Folding the Council on Educational Policy General Education (GE) and Assessment Committee GE reviews into one review.**

As of June, 2015, General Education (GE) courses were being reviewed by two separate Academic Senate committees, the Council on Educational Policy (CEP) and its subcommittee, the Assessment Committee (AC). The CEP review of

General Education courses began in 2009 following the establishment of General Education categories and requirements in 2007. General Education reviews of CEP have involved a review of all of the courses in one or two GE categories each year. Reviews focus on whether the course learning outcomes for the category are taught by the instructor, as reflected in an updated syllabus and the actual assignments and exams administered in the course.

The annual review of General Education conducted by the Assessment Committee began just this year to address WASC's new requirements for colleges/universities to assess whether GE course learning outcomes are being met by students.

As of AY2014-2015, AC and CEP GE reviews were being conducted separately even though and CEP and AC were reviewing the same GE categories (II and III this year). It was clear to the Academic Senate and to academic units that the two reviews should be folded into one review in order to eliminate some overlap between the two reviews and to reduce the inevitable confusion units faced when asked to submit similar materials for two separate reviews. One annual GE review timetable instead of two also allows academic departments to submit GE materials one time to one person instead of two different people in two separate academic senate units two times in the same academic year.

To begin the process of folding the CEP and AC GE reviews into one GE review, the academic senate asked Assessment Committee members at its May 14, 2015 meeting to consider developing a proposal for a combined CEP/AC GE review. AC and CEP members approved the following new review procedures to begin AY2014-2015.

#### EMAIL NOTIFICATION, END OF FALL QUARTER

At the end of fall quarter, an email will be sent out from CEP and AC alerting department or program chairs and directors and associate deans to the upcoming review of X (and Y) GE category(ies). The email will have two parts.

**PART I OF EMAIL.** The email will notify units that instructors for all of the courses in the GE category under review must submit a course syllabus along with assignment/exam items that evaluate the GE course learning outcomes. Units will also be asked to select items from current course assignments, class presentations, other assignments, and exams (or a subset of questions from these) to determine which items from these assignments reflect the GE course learning outcomes. Instructors/units will also be asked to justify any prerequisites or restrictions on the course. GE Courses with restrictions must also show that non-majors have access to the course.

**PART II OF EMAIL:** The second part of the email will include a request for instructors of GE category X and Y for winter quarter only to conduct an assessment to make sure the GE course learning outcomes are not only reflected in the overall design of the course but are also being met by students. The instructor will examine the grades of students on the assignments/exam items that measure the GE course learning outcomes and submit a summary explaining how well students performed on these items and the percentage of students in the course who have met each course learning outcome. Instructors will also provide a description of how the course can be improved based on the results. The deadline for units to submit all of these materials will be two or three weeks after the last day of fall quarter. CEP members will review the syllabi and exams/assignment items for all courses, along with justifications for GE prerequisites and restrictions. AC members will review instructor assessment reports describing student performance of course learning outcomes for Winter Quarter GE submissions only.

#### **V. Annual Schedule for CEP/AC General Education Reviews**

**Past:** 2010-12: Policy Committee reviews courses in Categories V, VII and VIII. Conduct pilot student survey for Category VII

**Year 0, 2012-13:** Education phase, as previously discussed, and Policy Committee reviews courses in Cats II and VI

**Year 1, 2013-14:** Education phase continued. GE course learning outcomes were included on instructors' learning management system (i.e., EEE) course sites. Letters were sent to GE instructors informing them of the upcoming review.

**Year 2, 2014-15:** Assessment of GE Categories II and III

**Year 3, 2015-16:** Assessment of GE Categories IV and VI

**Year 4, 2016-17:** Assessment of GE Categories Va and Vb

**Year 5, 2017-18:** Assessment of GE Categories VII and VIII

**Years 6 to 10, 11 to 15, etc.:** Repeat reviews in the same cycle as above, so each category is reviewed every five years.

## VI. Core Competencies

The Western Association of Schools and Colleges (WASC), the agency that accredits UCI every ten years, will soon require universities and colleges to assess students' core competencies around the time of graduation. The institutional review process calls upon institutions to describe how the curriculum addresses each of the five core competencies, explain their learning outcomes in relation to those core competencies and demonstrate, through evidence of student performance, the extent to which those outcomes are achieved. The core competencies are:

1. **Written communication:** communication using written language for informational, persuasive, and expressive purposes. Written communication may appear in many forms or genres. Successfully written communication depends on mastery of the conventions of the written language, facility with culturally accepted structures for presentation and argument, awareness of audience, and other situation-specific factors.
2. **Oral communication:** communication using spoken language for informational, persuasive, and expressive purposes. In addition to speech, oral communication may employ visual aids, body language, intonation, and other non-verbal elements to support the conveyance of meaning and connection with the audience. Oral communication may include speeches, presentations, discussions, dialog, and other forms of interpersonal communication, either delivered face to face or mediated technologically.
3. **Quantitative reasoning:** the ability to apply mathematical concepts to the interpretation and analysis of quantitative information in order to solve a wide range of problems, from those arising in pure and applied research to everyday issues and questions. It may include such dimensions as the ability to apply math skills, judge reasonableness, communicate quantitative information, and recognize the limits of mathematical or statistical methods.
4. **Information literacy:** according the Association of College and Research Libraries, the ability to “recognize when information is needed and have the ability to locate, evaluate, and use the needed information” for a wide range of purposes. An information-literate individual can determine the extent of information needed, access it, evaluate it and its sources, use the information effectively, and do so ethically and legally.
5. **Critical thinking:** the ability to think in a way that is clear, reasoned, reflective, informed by evidence, and aimed at deciding what to believe or do. Dispositions supporting critical thinking include open-mindedness and motivation to seek the truth.

For more details on the Core Competencies WASC standard, see the WASC 2013 Handbook of Accreditation:

<http://www.wascenior.org/resources/handbook-accreditation-2013/part-iii-wasc-quality-assurance/institutional-report/components-institutional-report/4-educational-quality-student-learning-core-competencies-and-standards-performance>

During fall quarter, 2015, AC will ask departments and programs to map core competencies (writing, oral, quantitative reasoning, critical thinking and information literacy) onto courses required for major(s). The exercise is being conducted so that AC will have an idea about how many of the competencies can already be found in major courses. Because students have to be competent in the competencies at the time of graduation, it is important that upper division courses cover the competencies.

## VII. Carry Forward Issues

1. AC will continue to evaluate charges put forth by WASC.
2. AC will review Assessment Reports from program in Social Ecology and Engineering.
3. AC will review the course learning outcomes for GE IV (social sciences) and possibly VI (foreign language) courses.
4. AC will continue notify departments of any changes to Assessment Reporting schedules.
5. AC will begin the process of assessing the five WASC Core Competencies.

### **VIII. AC membership AY2014-2015**

Martin Huang, Humanities, Chair of AC

Tesha Sengupta-Irving (Education) Vice Chair of AC

Justin Shaffer, Biological Sciences

Monica Majoli, Arts

Bonnie Nardi, ICS

Valerie Olson, Social Sciences

Devin Shanthikumar, Business

Larry Jamner, Social Ecology

Scott Bartell, Public Health

Mu-Chun Chen, Physical Sciences

Russel Detwiler, Engineering

ASUC representative

Jenny Truong

Ex Officio

Venette Van Duyn, Assessment Coordinator

Academic Senate

Michelle AuCoin, Academic Senate Principal Analyst