TO: Academic Senate

FROM: Committee on Instruction and Curriculum

SUBJECT: Learning Outcomes for Lower Division General Education (G.E.) Humanities, Social Sciences and Natural Sciences

PURPOSE: For Action by the Academic Senate

ACTION REQUESTED: That the Academic Senate Approve the Learning Outcomes for Lower Division General Education (G.E.) Humanities, Social Sciences and Natural Sciences; Effective Fall Quarter, 2004

BACKGROUND INFORMATION: When the Senate approved the new G.E. Program of 1998, it required that the Program be assessed. Learning outcomes in a number of areas were approved, since assessment is impossible unless one knows what is to be assessed. However, until now, there have not been learning outcomes in the areas of Humanities, Social Sciences and Natural Sciences, so these areas could not be assessed.

When the Senate approved the most recent General Education program in June 2003, it also mandated the creation of committees to write outcomes in these areas, and to update the Lifelong Understanding learning outcomes. These committees have completed their work and CIC, after much discussion and after consultation with chairs of programs in the respective areas, approved the proposed outcomes at their meeting on February 2, 2004, with mostly minor, non-substantive revisions. The votes in CIC were unanimous, 9-0-0.

The new G.E. Program, which is to take effect in Fall 2004, requires many courses and some clusters to be proposed and approved by the Senate. The lower division courses must be approved by the end of Spring 2004 in order to be included in the program when it begins in the Fall. However, the proposals cannot be written until the faculty know the learning outcomes that the courses and clusters will be designed to achieve, and it will be difficult to complete the process in time. For this reason, it is essential that the Senate approve these learning outcomes as soon as possible.

The committees and CIC will continue to work on the following G.E. learning outcomes for which the need is not immediate: Upper Division outcomes in Humanities, Social Sciences and Natural Sciences, writing and critical thinking; and updating of outcomes in Lifelong Understanding and lower division writing and critical thinking.
REVISION OF LEARNING OUTCOMES FOR LOWER DIVISION
HUMANITIES COURSES IN GENERAL EDUCATION
February 2, 2004

LOWER DIVISION GE HUMANITIES CLUSTERS, HUMANITIES COURSES IN
MIXED CLUSTERS, and HUMANITIES STAND-ALONE GE COURSES

Humanities clusters in the freshman general education program include the equivalent of at least one course in fine arts, at least one course in letters, and one additional course in either fine arts or letters, as described below. The courses must be in three different disciplines, unless taking a three-quarter sequence of language and culture study. If possible, each humanities cluster should expose students to both western and non-western cultures.

Humanities courses in mixed clusters will consist of courses in fine arts or letters as described below. Students taking humanities courses as stand-alone classes must complete at least one fine arts, one letters course. The third course may be from either category.

**Fine Arts:** Courses in the Fine Arts examine significant artistic expressions of the creative intellect. Courses meeting this requirement have as their major component the integration of evaluative and descriptive aspects of the history, theory, aesthetics, and criticism of different works, forms, styles, and schools of art.

**Letters:** Courses in Letters examine significant written and/or oral texts of the creative intellect. The major goals are: (a) to teach the critical examination of ideas and theories through the use of historical, linguistic, literary, philosophical, and/or rhetorical approaches and methods; and (b) to encourage understanding of enduring human concerns and the intellectual and cultural traditions within which they arise.

Humanities courses in the lower-division general education program should lead to the four Student Learning Outcomes (SLOs) listed below:

1. Students will demonstrate through oral and written work how foundational works in the humanities illuminate enduring human concerns and the intellectual and cultural traditions within which these concerns arise, including both classical and contemporary artists and/or theorists.

2. Students will demonstrate a developing understanding of the interaction among historical and cultural contexts, individual works, and the development of humanities over time.

3. Through oral and written work, students will demonstrate their ability to critically employ concepts, theories, and methods of analysis used in the humanities to interpret and evaluate enduring human concerns.

4. Students will critically reflect on the formation of human goals and values, and will articulate an understanding of the creativity reflected in works of the humanities that influenced the formation of those values.
Lower Division Natural Science Learning Outcomes

The goal of lower division general education in the natural sciences is to gain basic knowledge and learn key principles in the life and physical sciences as essential for an informed citizenry. In addition, students should recognize the experimental and empirical methodologies characteristic of science and understand the modern methods and tools used in scientific inquiry. At least one of the courses must have a laboratory.

Physical Science (B1)
1. Students should be able to demonstrate broad science content knowledge in the physical sciences such as the nature and structure of matter, Earth’s place in the Universe, or the conservation of energy and matter.
2. Students should be able to demonstrate the application of quantitative skills (such as statistics, mathematics and the interpretation of numerical graphical data) to physical science problems.
3. Students should be able to demonstrate a general understanding of the nature of science, the methods applied in scientific investigations, and the value of those methods in developing a rigorous understanding of the physical world. Students should be able to identify the difference between science and other fields of knowledge. Students should be able to distinguish science from pseudoscience.

Life Science (B2)
1. Students should be able to demonstrate broad science content knowledge in the life sciences (such as cellular structure, the diversity and classification of life, or biological evolution) and be able to describe fundamental concepts in the life sciences that distinguish them from the physical sciences.
2. Students should be able to demonstrate the application of quantitative skills (such as statistics, mathematics, the interpretation of graphical data, etc.) to life science problems.
3. Students should be able to demonstrate a general understanding of the nature of science, the methods applied in scientific investigations, and the value of those methods in developing a rigorous understanding of the physical world. Students should be able to identify the difference between science and other fields of knowledge. Students should be able to distinguish science from pseudoscience.

Science Elective (B3)
1. Students should be able to demonstrate a broad science content knowledge in the physical, life, or interdisciplinary sciences.
2. Students should be able to demonstrate the application of quantitative skills (such as statistics, mathematics, the interpretation of graphical data, etc.) to scientific problems.
3. Students should be able to demonstrate a general understanding of the nature of science, the methods applied in scientific investigations, and the value of those methods in developing a rigorous understanding of the physical world. Students should be able to identify the difference between science and other fields of knowledge. Students should be able to distinguish science from pseudoscience.

Science Laboratory
Students should be able to demonstrate hands-on skills applying the specialized methods and tools of scientific inquiry (such as collecting, analyzing, and interpreting the data, presenting the findings, and using the information to answer questions).
Lower Division GE SOCIAL SCIENCE OUTCOMES

General Education Area D: Social Science
Courses in this area acquaint you with basic principles, methodologies, theoretical problems, and applications in those sciences whose field of study is human behavior in its social environment.

D1-3 Basic Requirements (12 units)
Criteria: Courses fulfilling the Basic Social Science requirements present the fundamental principles and methods of inquiry that are grounded in social science disciplines. Students must take courses from three different departments.

1. Demonstrate, orally and in writing, recognition of the application of disciplinary concepts derived from at least three social or behavioral sciences in the study of human behavior, individually and in society.
   a. State at least two standard or basic theories and models
   b. Define key disciplinary terms
   c. Identify professional applications of disciplinary concepts

2. Demonstrate, orally and in writing, recognition of the inquiry methods used by at least one of the social or behavioral science disciplines.
   a. Identify key research issues
   b. Describe how hypotheses or research questions are formed
   c. List examples of data that are examined
   d. Describe how data are analyzed

3. Demonstrate, orally and in writing, the ability to describe how human diversity and the diversity of human societies influence our understanding of human behavior, individually and in societies, both local and global

4. Demonstrate, orally and in writing, some knowledge of the political, social, and/or economic institutions of a country other than the United States.

5. Demonstrate, orally and in writing, the ability to describe major positions and contrasting arguments made on one or more significant contemporary issue area confronting US society as applied to human behavior. (Possible areas include: biomedical and health issues, class, crime, discrimination, education, energy, environment, gender, global economy, immigration, military intervention abroad, poverty, race, technology.)