#### APPENDIX I:

#### **Introduction and Overview to General Education Course Learning Outcomes:**

The approval of courses for satisfaction of the General Education (GE) requirements is carried out by the Council or Educational Policy. The complete regulations governing GE are found in Senate Regulation 520. The assessment of GE courses and their effectiveness is carried out by the CEP Assessment subcommittee.

GE categories are reviewed on a rotating basis, and existing courses can be recommended for removal from satisfying the GE category if it is found that they no longer meet the GE requirements. Generally, before removal of a course from satisfying the GE requirements, Units will be given the option to justify why the course should remain a GE course or make revisions to the course so that it retains its GE status. In addition to the general guidelines, each category has specific regulations and learning outcomes that are used both in the approval process and the assessment process.

#### **Category I: Writing**

#### **Senate Regulation:**

The Writing Requirement will consist of two approved lower-division courses in expository or creative writing followed by a third upper-division writing course. Lower-division writing courses may be offered by any academic unit provided they contain explicit treatments of problems in composition such as the design of essays, paragraph development, correct sentences, and usage. Such courses may take the form of a workshop or discussion section attached to other courses, such as the writing component of the Humanities Core Course.

The upper-division writing course may not be taken before satisfaction of the lower-division requirement. Such courses may be offered by any academic unit provided they follow the guidelines established by CEP.

### **Catalog Description:**

Because of the importance of visual, oral, electronic, and written communication in every academic discipline, in the professions, and in public life, the University is committed to developing a variety of communication abilities in students at all levels and in all areas. The Writing Requirement expresses this broad commitment, but the concern for and attention to rhetorically effective, accurate writing is expected in all courses. The Writing Requirement consists of two courses at the lower-division level beyond the UC Entry-Level Writing Requirement and one upper-division course in a discipline.

#### **Course Specific Outcomes:**

#### Lower-division writing:

- demonstrate rhetorically effective, accurate writing and communication ability across a variety of contexts, purposes, audiences, and media using appropriate stance, genre, style, and organization.
- develop flexible strategies for generating, revising, editing, and proof-reading texts.
- develop abilities in critical reading across a variety of genres and media.
- demonstrate information literacy skills by locating, evaluating and integrating information gathered from multiple sources into a research project.

#### *Upper-division writing:*

- demonstrate rhetorically effective, discipline-specific writing and communication for appropriate academic, professional, and public audiences.
- demonstrate, at an advanced level of competence, use of discipline-specific research methods, genres, modes of development, and formal conventions.
- demonstrate advanced information literacy skills by locating, evaluating and integrating information gathered from multiple sources into discipline-specific writing.

# **Category II: Science and Technology**

# **Senate Regulation:**

Category II courses provide an understanding of the nature of scientific inquiry and the operation of the biological, physical, and technological world that is essential for making personal and public policy decisions in a technological society.

## **Catalog description:**

Understanding the nature of scientific inquiry and the operation of the biological, physical, and technological world is essential for making personal and public policy decisions in a technological society.

After completing this GE requirement, successful students should be able to do the following: demonstrate a broad understanding of the fundamental laws of science, the principles underlying the design and operation of technology, and the interrelations among science and technology disciplines; demonstrate a broad understanding of various natural phenomena that surround and influence our lives; describe how scientists approach and solve problems; solve problems and draw conclusions based on scientific information and models, using critical thinking and qualitative and quantitative analysis of data and concepts; and explain the scope and limitations of scientific inquiry and the scientific method.

# **Course specific outcomes:**

Understanding the nature of scientific inquiry and the operation of the biological, physical, and technological world is essential for making personal and public policy decisions in a technological society. Students must complete three courses in this Category.

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/or 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.

# **Category III: Social and Behavioral Sciences**

## **Senate Regulation:**

Category III courses will focus on the principles, sources, and interpretations of human behavior and on how people organize, govern, understand, and explain social life. This category includes the analysis of human behavior at all levels, from the individual to collective social, economic, and political life, and on the scientific methods used in the acquisition of knowledge and the testing of competing theories.

# **Catalog Description:**

Courses will focus on principles, sources, and interpretations of human behavior and on how people organize, govern, understand, and explain social life. This category includes the analysis of human behavior at all levels, from the individual to collective social, economic, and political life, and on the scientific methods used in the acquisition of knowledge and the testing of competing theories.

After completing this GE requirement, successful students should be able to do the following: demonstrate knowledge and understanding of principles, sources, and interpretations of human behavior and how people organize, govern, understand, and explain social life; demonstrate an understanding of contemporary and historical perspectives on human behavior; understand and explain the scientific methods used in the acquisition of knowledge and the testing of competing theories in the social and behavioral sciences; and critically evaluate methods, findings, and conclusions in the research literature on human behavior.

#### **Course specific learning outcomes:**

Courses will focus on principles, sources and interpretations of human behavior and on how people organize, govern, understand, and explain social life. This category includes the analysis of human behavior at all levels, from the individual to collective social, economic, and political life, and the scientific methods used in the acquisition of knowledge and the testing of competing theories. Students must complete three courses in this Category.

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/or 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/or 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/or behavioral sciences.

# **Category IV: Arts and Humanities**

# **Senate Regulation:**

Category IV courses expand the student's sense of diverse forms of cultural expression, past and present. Students develop their critical capacity as they discover how meaning is created and experience is variously interpreted.

# **Catalog Description:**

Study of the Arts and Humanities expands the student's sense of diverse forms of cultural expression, past and present. Students develop their critical capacity as they discover how meaning is created and experience variously interpreted.

After completing this GE requirement, successful students should be able to do the following: demonstrate knowledge and understanding of how visual and verbal communication is used in literature and film, art and music, and philosophy and history; communicate an understanding and appreciation of diverse forms of cultural expression, past and present; understand and explain the research methods used in the acquisition of knowledge and the testing of competing theories in the arts and humanities; and think critically about how meaning is created and how experience is variously interpreted.

### **Course Specific Learning Outcomes:**

After completing a course in this category, successful students should be able to do three of the following:

- 1) Demonstrate knowledge and understanding of how different forms of art engage multiple sensory experiences.
- 2) Communicate a recognition and understanding of diverse forms of expression across the globe, past and present.
- 3) Demonstrate an understanding of the research and creative methods used in the construction of knowledge in the arts and humanities.
- 4) Demonstrate a critical recognition of the historical and philosophical approaches to the formation of culture, including the impact of technology on aesthetic experience.
- 5) Identify how different theories and practices, over time, shape our interpretation of cultural and creative expression.

# Category V: Quantitative literacy and formal reasoning.

# **Senate Regulation:**

Courses approved for the GE requirement in this category will focus on important academic competencies in areas of quantitative literacy and reasoning. This category consists of two subcategories. Students are required to take one course in each of the subcategories and an additional course from either category, for a total of three Category V courses. A course approved for the GE requirement in Category V and also approved for the GE requirement in a category other than V may be used to satisfy the requirements of both categories simultaneously. However, courses approved for both subcategories in Category V may only be used to satisfy one of the subcategories by a student. The two subcategories are indicated as VA and VB.

VA. Quantitative Literacy: Courses in this category focus on the quantitative description, evaluation and assessment of events occurring in nature or in human social and political systems. This includes quantitative measurements made or data collected to study such events, analysis of the data, and implications of the analysis for our understanding of the events.

VB. Formal Reasoning: Courses in this category focus on aspects of formal reasoning including symbolic logic, mathematical modeling, and algorithmic reasoning.

## **Catalog Text:**

Courses approved for the GE requirement in this category will focus on important academic competencies in areas of quantitative literacy and reasoning. This category consists of two subcategories. Students are required to take one course in each of the subcategories and an additional course from either category, for a total of three Category V courses. A course approved for the GE requirement in Category V and also approved for the GE requirement in a category other than V may be used to satisfy the requirements of both categories simultaneously. However, courses approved for both subcategories in Category V may only be used to satisfy one of the subcategories by a student. The two subcategories are indicated as VA and VB. Courses in this category VA focus on the quantitative description, evaluation and assessment of events occurring in nature or in human social and political systems. Courses in category VB focus on aspects of formal reasoning including symbolic logic, mathematical modeling, and algorithmic reasoning.

#### **Course Specific Learning Outcomes:**

**VA.** After taking a course in Category VA, successful students will be able to do all of the following:

- 1) Identify appropriate tools for quantitative analysis of processes or events.
- 2) Have a basic familiarity with fundamental principles underlying quantitative descriptions of natural or social processes.
- 3) Be able to do one or more of the following: evaluate studies and reports that assess risk and probability in everyday life; use models of natural phenomena to make quantitative predictions of future behavior or events; use models of economic and social structures to make quantitative predictions of future behavior or events.

**VB.** After taking a course in Category VB, successful students will be able to do all of the following:

- 1) Understand the concept and purpose of formal languages such as propositional and first-order logic, simple programming languages, mathematical models or linguistic formalisms.
- 2) Possess an elementary grasp of the power and limits of formal methods.
- 3) Be able to do one or both of the following: apply formal tools of logic or mathematics to the analysis and evaluation of everyday and/or scientific arguments, texts, and communicative situations; apply basic algorithms for the generation of logical deductions, linguistic structures, or computational processes.

#### Category VI: Languages Other Than English

# **Senate Regulation:**

Study of a language other than English expands a student's horizons by encouraging understanding of another culture through its language and heightens awareness of one's own language through the investigation of another linguistic system.

## **Catalog Description:**

Study of a language other than English expands students' horizons by encouraging understanding of another culture through its language and heightens awareness of one's own language through the investigation of another linguistic system.

After completing this GE requirement, successful students should be able to do the following: demonstrate competency in reading, writing, speaking, and listening in a non-English language; demonstrate an understanding of another (non-English speaking) culture through its language; and demonstrate an understanding of one's own language through the investigation of another, non-English linguistic system.

# **Course Specific Learning Outcomes:**

Study of a language other than English expands students' horizons by encouraging understanding of another culture through its language and heightens awareness of one's own language through the investigation of another linguistic system. Students must demonstrate competence in a language other than English by completing college-level course work equivalent to UCI's third quarter of study in a language other than English.

After completing this General Education requirement, successful students should be able to do both of the following:

- Demonstrate competency in understanding and communicating ideas in a language other than English
- Demonstrate an understanding of a non-English speaking culture through its language.

# **Category VII: Multicultural Studies**

# **Senate Regulation:**

A course approved for the GE requirement in Category VII or VIII and also approved for the GE requirement in a category other than VII or VIII may be used to satisfy the requirements of both categories simultaneously. Students will be encouraged to satisfy the requirements of Categories VII and VIII in this way.

Category VII develops students' awareness and appreciation of the history, society, and/or culture of one or more underrepresented groups in California and the United states.

# **Catalog Description:**

This requirement develops students' awareness and appreciation of the history, society, and/or culture of one or more underrepresented groups in California and the United States.

After completing this GE requirement, successful students should be able to do the following: demonstrate knowledge of one or more historically underrepresented groups' culture, history, and development in California and the United States; demonstrate an awareness and appreciation of cultural differences and inequities; and demonstrate an understanding that cooperation and mutual understanding among all cultural groups is needed to interact successfully in a culturally diverse society.

#### **Course Specific Learning Outcomes:**

After completing a course in this category successful students should be able to do one or more of the following:

- 1. Demonstrate knowledge of one or more historically underrepresented groups' culture, history, and development in California and/or the United States.
- 2. Demonstrate an awareness and appreciation of ethnic/racial differences and inequities in U.S. society.
- 3. Demonstrate an understanding that cooperation and mutual understanding among U.S. racial/ethnic groups is necessary in a culturally diverse society.

# Category VIII: International and Global Issues

# **Regulation:**

A course approved for the GE requirement in Category VII or VIII and also approved for the GE requirement in a category other than VII or VIII may be used to satisfy the requirements of both categories simultaneously. Students will be encouraged to satisfy the requirements of Categories VII and VIII in this way.

Category VIII focuses on significant cultural, economic, geographical, historical, political, and/or sociological aspects of one or more countries other than the United States.

# **Catalog Description**

Courses in this category focus on significant cultural, economic, geographical, historical, political, and/or sociological aspects of one or more countries other than the United States.

After completing this GE requirement, successful students should be able to do the following: demonstrate specific knowledge of the cultural, historical, social, economic, scientific, and political aspects of one or more foreign countries, and the connections among these aspects; develop a broader understanding of the formation of different cultures and countries through the world; and be prepared to engage in positive interaction with peoples of different cultures and nationalities.

Students must complete one course from the following list. In fulfilling category VIII, students are encouraged to use courses that are also being used in fulfillment of other GE categories. In addition, category VIII may be satisfied by one quarter's participation in the UC Education Abroad Program (EAP) or one quarter's participation in an International Opportunities Program (IOP) with an approved IOP Credit Contract. Summer study abroad on an EAP, IOP (with approved IOP Credit Contract), or UCI Summer Session Travel Study program satisfies this requirement when the program is at least five weeks long and a student completes at least one course worth at least 4 quarter units.

## **Course Specific Learning Outcomes:**

Courses in this category focus on significant aspects of one or more countries other than the United States. Students must complete one course in this Category.

After completing a Category VIII course, successful students will be able to do one or both of the following:

- 1) Demonstrate knowledge of an issue facing one or more countries other than the United States, by describing its cultural, economic, geographic, historical, political, scientific and/or sociological dimensions
- 2) Demonstrate an international perspective by describing an issue facing one or more countries other than the United States from its cultural, economic, geographic, historical, political, scientific and/or sociological point of view.