



## University Policy Statement

### UPS 411.201

## GENERAL EDUCATION: BREADTH OBJECTIVES AND COURSE DEVELOPMENT

### **The Objectives of General Education**

General education is central to a university education, and should enhance students' awareness of themselves in a complex universe, drawing upon multiple points of view. As a result of general education experience, students should acquire **knowledge** of diverse disciplinary and cultural perspectives and **skill** in comparing, contrasting, applying, and communicating effectively these perspectives in tasks considered appropriate to particular courses.

The General Education Program at California State University, Fullerton, is divided into five major Areas: A. Core Competencies, B. Scientific Inquiry and Quantitative Reasoning, C. Arts and Humanities, D. Social Sciences, and E. Lifelong Learning and Self-Development. Additionally, the General Education program includes one Overlay, Z. Cultural Diversity, that adds content but no additional units to designated General Education courses.

The learning objectives specified in this document will not be used in the assessment of the General Education Student Learning Goals and Outcomes. Instead they are intended to guide faculty in the preparation of new courses for submission to the General Education program. They also will be used by the General Education committee both in evaluating courses for initial inclusion in the General Education curriculum and when courses are submitted for recertification.

Written communication, oral communication, critical thinking, and mathematics/quantitative reasoning are essential components of the entire program of General Education at California State University, Fullerton.

**General Education courses shall include student writing appropriate to the course. Writing in General Education courses shall involve the organization and expression of complex data or ideas. Instructors shall provide careful and timely evaluations of writing so that deficiencies are identified and suggestions are offered for improvement on subsequent writing in the course. Evaluations of the student's writing competence shall be used in determining the final course grade. When a student is enrolled in a combined lecture and laboratory course, the laboratory portion of the course may be used to satisfy the General Education writing requirement.**

No single course should necessarily be expected to pursue every objective specified for that course's Area or subarea, although each course should meet the preponderance of the learning objectives within that Area or subarea, thus satisfying the spirit and intention of the learning objectives (i.e., the more objectives that a particular course addresses the more appropriate that course will be as a general education offering.) However, courses that satisfy Overlay Z, Cultural Diversity, must include all of the learning objectives for the overlay.

Course syllabi for courses that meet General Education requirements shall include the following:

- a. A statement of the specific General Education requirement(s) that the course meets.
- b. A list of the learning objectives for the General Education Area or subarea in which the course carries credit.
- c. Courses in Oral Communication (A.1), Written Communication (A.2), Critical Thinking (A.3), and Mathematics/Quantitative Reasoning (B.4) shall include a statement that “A grade of “C-” (1.7) or better is required to meet this General Education requirement. A grade of “D+” (1.3) or below will not satisfy this General Education requirement.”
- d. A statement of the way in which the General Education writing requirement shall be met and assessed.

General Education courses may be taught in any modality (e.g., face-to-face, hybrid, or completely online).

### **A. Core Competencies**

The Core Competencies include Oral Communication, Written Communication, and Critical Thinking. These shall be lower-division courses.

### **Overall Objectives**

Students taking courses in Area A shall practice and enhance their skills and abilities to

- Organize one’s thoughts and communicate them clearly and effectively, using language that demonstrates sensitivity to gender and cultural differences.
- Find, evaluate, select, synthesize, organize, cite and present information and arguments clearly and effectively for a variety of purposes and audiences.
- Recognize and evaluate the features, functions, and contexts of language that express and influence meaning.
- Compare and contrast with care and accuracy the relative merits of alternative or opposing arguments, interpretations, assumptions, and cultural values.
- Reflect in an open-minded manner on one’s own thinking in relation to the ideas of others.

### **A.1 Oral Communication**

Courses in subarea A.1 must be taught in English. Students taking courses in subarea A.1 shall practice and enhance their skills and abilities to

- a. Demonstrate the ability to communicate orally and listen effectively.
- b. Understand the rhetorical principles that underlie form, content, context, and effectiveness of communication choices in formal speeches or social interactions.
- c. Present well-organized oral messages practicing sound reasoning and advocacy that depend on the effective discovery, critical evaluation, accurate presentation, and clear reporting of relevant information and supporting evidence.
- d. Understand how culture and social context influence oral communication and to appreciate the value of different communication styles.

- e. Select and use effectively appropriate techniques and materials to support ideas and to motivate and persuade others.

## **A.2 Written Communication**

Courses in subarea A.2 must be taught in English. Students taking courses in subarea A.2 shall practice and enhance their skills and abilities to

- a. Develop and present clearly written messages in English.
- b. Express and advocate ideas clearly and effectively in writing.
- c. Present well-organized written messages exhibiting sound reasoning and advocacy that depend on the critical evaluation of relevant information.
- d. Understand the rhetorical principles that underlie form, content, context, and effectiveness of choices made in written messages including how matters of style affect successful communication.
- e. Improve one's own writing skills through the critique of the writing of others.
- f. Use writing to synthesize creative and innovative ideas, solutions, and knowledge.

## **A.3 Critical Thinking**

Students taking courses in subarea A.3 shall practice and enhance their skills and abilities to

- a. Understand the role of logic and its relation to language.
- b. Understand elementary inductive and deductive processes, including formal and informal fallacies.
- c. Develop the skills to distinguish propositions and statements of fact from issues of judgment or opinion.
- d. Develop skills to advocate for ideas.
- e. Develop skills to reach well-supported factual and judgmental conclusions and the skills to successfully advocate for these conclusions.
- f. Evaluate, critique, and analyze the quality and sufficiency of evidence and other forms of support for a position, including recognition of underlying lines of argument.

## **B. Scientific Inquiry and Quantitative Reasoning**

Scientific Inquiry and Quantitative Reasoning includes Physical Science, Life Science, Laboratory Experience, Mathematics/Quantitative Reasoning, and Implications and Explorations in Mathematics and the Natural Sciences.

Courses in B.1 through B.4 shall be lower-division courses. Courses in B.5 shall be upper-division courses.

### **Shared Learning Objectives**

#### **B.1 Physical Science**

#### **B.2 Life Science**

#### **B.3 Laboratory Experience**

Subareas B.1, B.2, and B.3 share a set of core learning objectives. Students taking courses in subareas B.1, B.2, and B.3 shall

- a. Understand the nature of scientific inquiry and the unique way that the natural sciences and mathematics describe the universe.
- b. Evaluate the validity and limitations of theories and scientific claims in interpreting experimental results.
- c. Understand the dynamic and evolving nature of the sciences.
- d. Recognize the importance of scientific paradigms and methods in understanding scientific concepts.
- e. Use quantitative techniques and scientific reasoning to investigate problems and phenomena in the natural universe.
- f. Understand the potential limits of scientific endeavors and the value systems and ethics associated with human inquiry.
- g. Understand different types of uncertainty and its impact on scientific methodology and reasoning.
- h. Analyze and manipulate graphical representations of data.
- i. Formulate and evaluate hypotheses using quantitative techniques.
- j. Use statistical techniques to evaluate uncertainty in experimental data.

### **B.1 Physical Science**

Students taking courses in subarea B.1 shall explore the core objectives described above through in-depth exploration of the physical universe. Students taking courses in subarea B.1 shall obtain a foundational understanding of either the nature of matter and energy, or Earth as a planet and its relation to the universe.

Students taking courses focusing on the nature of matter and energy shall

- a. Understand that energy exists in many forms, and that in any process, energy changes form and/or place, but the total amount of energy remains the same.
- b. Recognize that objects interact with one another by exerting forces, and that unbalanced forces acting on an object cause change in the motion of the object.
- c. Understand that all matter has observable properties that depend on the conditions and scale at which we look. Investigations of matter at the atomic and subatomic levels explain the properties, reactions, and interactions of matter.

Students taking courses focusing on the Earth as a planet and its relation to the universe shall

- a. Apply basic principles of the physical and life sciences to understand earth and astronomical systems.
- b. Understand that earth materials and structures are organized in interacting systems and that the Earth itself is part of a planetary system.
- c. Understand that the Earth changes continuously, and is part of a universe that itself is changing.
- d. Recognize that energy and matter flow and cycle through earth and astronomical systems, of which human society is an integral part.
- e. Understand that changes within an earth or astronomical system may affect other earth or astronomical systems. Humans are part of and may affect or be affected by these systems.

- f. Understand that earth and astronomical systems have interacted and evolved over billions of years encompassing the lifetime of planet Earth, the solar system, and the universe.

## **B.2 Life Science**

Students taking courses in subarea B.2 shall explore the foundations of the Life Sciences through in-depth exploration of living systems. Students taking courses in subarea B.2 shall

- a. Understand that living things are made of smaller structures whose functions enable organisms to survive.
- b. Understand that living things depend on each other and the physical environment as they interact to obtain, change, and exchange matter and energy.
- c. Understand that the great diversity of living things, ranging from single-celled organisms to complex, multi-celled organisms including microbes, plants, and animals, is the result of billions of years of evolution through the mechanisms of heredity, mutation, and natural selection.

## **B.3 Laboratory Experience**

Students taking courses in subarea B.3 shall

- a. Apply scientific methodology through active experimental methods and experiences (laboratory/activity).
- b. Evaluate the validity and limitations of theories and scientific claims in interpreting experimental results.

Courses in subarea B.3 shall be associated with B.1 or B.2.

## **B.4 Mathematics/Quantitative Reasoning**

Students taking courses in subarea B.4 shall demonstrate the abilities to reason quantitatively, practice computational skills, and explain and apply mathematical or quantitative reasoning concepts to solve problems. If a course in this subarea requires a prerequisite, it shall include a prerequisite reflective only of skills and knowledge required in the course. In addition to traditional mathematics, courses in subarea B.4 may include computer science, personal finance, statistics or discipline-based mathematics or quantitative reasoning courses, for example.

Students taking courses in subarea B.4 shall

- a. Understand and appreciate the varied ways in which mathematics or quantitative reasoning is used in problem-solving.
- b. Understand and appreciate the varied applications of mathematics or quantitative reasoning to real-world problems.
- c. Perform appropriate numerical calculations, with knowledge of the underlying mathematics, and draw conclusions from the results.
- d. Demonstrate knowledge of fundamental mathematical concepts, symbols, and principles.
- e. Solve problems that require mathematical analysis and quantitative reasoning.
- f. Summarize and present mathematical information with graphs and other forms that enhance comprehension.
- g. Utilize inductive and deductive mathematical or quantitative reasoning skills in finding solutions, and be able to explain how these skills were used.

- h. Explain the overall process and the particular steps by which a mathematical or quantitative reasoning problem is solved.
- i. Demonstrate a sense of mastery and confidence in the ability to solve problems that require mathematical concepts and quantitative reasoning.

### **B.5 Implications and Explorations in the Natural Sciences and Mathematics/Quantitative Reasoning**

Courses in this subarea draw upon, integrate, apply, and extend knowledge and skills previously acquired in subareas B1-4. These courses have a substantial scientific, mathematical, and/or quantitative reasoning content and require completion of appropriate courses in subareas B1-4 as prerequisites to enrollment.

Students taking courses in subarea B.5 shall

- a. Integrate themes in science, mathematics, and/or quantitative reasoning from cross-disciplinary perspectives.
- b. Solve complex problems that require science, mathematics, and/or quantitative reasoning.
- c. Relate science, mathematics, and/or quantitative reasoning to significant social problems or to other related disciplines.
- d. When deemed appropriate, apply disciplinary concepts from mathematics and the natural sciences in a variety of settings, such as community-based learning sites and activities.

### **C. Arts and Humanities**

Arts and Humanities include Introduction to the Arts (C.1), Introduction to Humanities (C.2), and Explorations in the Arts and Humanities (C.3).

Courses in C.1 and C.2 shall be lower-division courses. Courses in C.3 shall be upper-division courses.

### **Overall Learning Objectives**

After completing course requirements in Area C, students shall

- a. Cultivate their intellect, imagination, sensibility, and sensitivity through the study of the arts and humanities.
- b. Understand and explicate major concepts, themes, and imagery found in the arts and humanities and recognize aesthetic qualities and processes that characterize works of the human intellect and imagination.
- c. Understand how significant works in the arts and humanities respond to and address enduring problems of human existence.
- d. Appreciate the interdisciplinary nature of the arts and humanities, including disciplines both within and outside the arts and humanities.

### **C.1 Introduction to the Arts**

Students taking courses in subarea C.1 shall

- a. Understand and appreciate the visual and performing arts.

- b. Become cognizant of the various aesthetic and non-aesthetic values that have contributed to the development of civilization.
- c. Recognize and analyze the social, historical, and cultural significance of works of human imagination, including those in the culturally diverse contemporary world.
- d. Cultivate, both emotionally and intellectually, an understanding of the interrelationship between the self and the creative arts through the study of the arts or through experiencing the arts, including for example, attending dance recitals, concerts, and plays, and visiting art sites such as museums.

Although courses in subarea C.1 may include creative activities on part of the student, these courses may not exclusively emphasize skills development and must contain a substantial cultural component.

## **C.2 Introduction to the Humanities**

Students taking courses in subarea C.2 shall

- a. Cultivate their intellectual reasoning skills, expand their capacity for creative imagination, develop their reasonable moral sensibilities, and increase their capacity for sensitive engagement through studying great works of human imagination and reason (which are to be primarily—although not exclusively—written texts and literature).
- b. Understand how the humanities have contributed to the development of culture, including the comparative study of the humanities in diverse cultures.
- c. Understand how the humanities have sought to provide answers to complex problems facing humanity, including the relationship of the self to culture and the natural world, the nature of moral and legal obligations, and the meaning and purpose of human existence.

Classes may be conducted in languages other than English if they meet the above objectives. Such courses must contain a substantial cultural component (e.g., literature, among other content) and shall not focus solely on the acquisition of language skills.

## **C.3 Explorations in the Arts or Humanities**

Courses in this subarea shall draw upon, integrate, apply, and extend knowledge and skills previously acquired in subareas C.1 and/or C.2. Although courses approved for C.3 will typically meet either the objectives for Explorations in the Arts or Explorations in the Humanities, some interdisciplinary courses may draw upon the learning objectives from both areas. Completion of appropriate courses in subarea C.1 and/or C.2 shall be required as a prerequisite for all courses in C.3. The learning objectives for subarea C.3 include the learning objectives for subareas C.1 and/or C.2.

All courses in subarea C.3 must contain a substantial cultural component. Courses in subarea C.3 may include creative activities on the part of the student provided they do not emphasize skills development exclusively. Classes may be conducted in languages other than English provided they do not focus solely on the acquisition of language skills.

In addition to the learning objectives of C.1 and/or C.2, students taking courses that are **Explorations in the Arts** shall

- a. Gain visual and performance literacy through the scholarly observation of culturally and

historically significant art with an emphasis on the endeavor of the artist/creator.

- b. Cultivate an understanding of a work of art that embodies an objective as well as subjective response to the aesthetic experience, defend an informed opinion, and communicate their view to others.
- c. Relate the arts to significant social problems.
- d. Understand the broad, unifying themes in the arts from a wide array of perspectives.
- e. Deepen previously acquired artistic appreciation and understanding through participation either in making or performing of art forms or through the experience of such a process by direct observation.

In addition to the Learning Objectives of C.1 and/or C.2, students taking courses that are **Explorations in the Humanities** shall

- a. Understand broad, unifying themes from cross-disciplinary perspectives in the humanities.
- b. Understand the relevance of the humanities for the thoughtful consideration of complex contemporary problems.
- c. Appreciate the complex relationship and interaction between the humanities and other fields of learning, including the natural sciences, social sciences, and arts.

#### **D. Social Sciences**

Social Sciences include Introduction to the Social Sciences, American History, Institutions, and Values, American Government, and Explorations in Social Sciences.

Courses in D.1 through D.3 shall be lower-division courses. Courses in D.4 shall be upper-division courses.

#### **Overall Learning Objectives**

After completing courses from different disciplinary perspectives in Area D students shall

- a. Understand the ways that social, political, and economic institutions and human behavior are interconnected.
- b. Understand problems and issues from respective disciplinary perspectives and examine issues in their contemporary as well as historical settings and in a variety of cultural contexts.
- c. Understand the principles, value systems, ethics, and methodologies employed in social science inquiry.
- d. Understand the ways cultures construct social differences, such as those based on ethnicity, gender, race, class, and sexual orientation, and their effects on the individual and society.

#### **D.1 Introduction to the Social Sciences**

Students completing courses in subarea D.1 shall

- a. Understand the purpose of the social sciences and the distinguishing features of the social sciences.



- b. Understand and explain major social science concepts, methods, and theories and apply them to concrete problems of contemporary society.
- c. Reflect on what it means to be a social, historical, cultural, psychological, and political being.
- d. Reflect on their own social, cultural, and political experiences in light of social science concepts, methods, and theories.
- e. Understand the integrated nature of social, political, and economic behaviors and institutions in different geographical and historical contexts.
- f. Understand processes of social, political, and cultural change and differentiation in a variety of cultural contexts.

## **D.2 American History, Institutions, and Values**

Students completing courses in subarea D.2 shall

- a. Recognize the significance of cultural, intellectual, ethical, economic, and political struggles that have shaped American society over time.
- b. Understand critically the historical development of American institutions and values and their impact on the individual and collective lives of Americans.
- c. Recognize the significance of the interaction of ethnic and other social groups to the historical development of American society, institutions, and values within contexts of accommodation and resistance.
- d. Understand critically how government under the Constitution of the United States has shaped American society.
- e. Critically situate changes in American society within the context of global events.
- f. Analyze primary source materials, engage in critical and constructive discussions, and communicate effectively in writing.

## **D.3 American Government**

Students completing courses in subarea D.3 shall

- a. Assess critically how the Constitution of the United States and government under the Constitution have shaped American democracy and contemporary American society.
- b. Understand critically the political culture of citizen participation, including political parties, pressure groups, public opinion, and the electoral process.
- c. Assess critically the Constitutions of the United States and of California, and the operation of representative democratic government under those Constitutions.
- d. Explain the processes and interaction between and among local, state, and national governments, with particular reference to California.
- e. Understand critically the structures, functions, and processes of the three branches of government and resulting public policies.
- f. Assess critically behavioral and institutional practices in United States and California politics.

#### **D.4 Explorations in Social Sciences**

Because courses in subarea D.4 build upon the learning objectives in D.1, completion of subarea D.1 shall be required as a prerequisite for all courses in D.4. In addition, students completing courses in subarea D.4 shall

- a. Examine problems, issues, and themes in the social sciences in greater depth; in a variety of cultural, historical, and geographical contexts; and from different disciplinary and interdisciplinary perspectives.
- b. Analyze and critically evaluate the application of social science concepts and theories to particular historical, contemporary, and future problems or themes, such as economic and environmental sustainability, globalization, poverty, and social justice.
- c. Analyze and critically evaluate constructs of cultural differentiation, including ethnicity, gender, race, class, and sexual orientation, and their effects on the individual and society.
- d. Apply theories and concepts from the social sciences to address historical, contemporary and future problems confronting communities at different geographical scales, from local to global.

#### **E. Lifelong Learning and Self-Development**

Courses in Lifelong Learning and Self-Development provide the opportunity to equip learners for lifelong understanding and development of themselves as integrated physiological, social, and psychological beings.

To accomplish this goal, students would:

1. Further their own critical self-understanding and acquire the knowledge, skills, and attitudes necessary to engage and reflect in learning and self-development practices.
2. Develop strategies to be integrated physiological, socio-cultural, and psychological beings to promote a holistic awareness of lifelong learning throughout their lives.
3. Actively apply and participate in developing a lifelong commitment to health for both personal well-being (such as physical, emotional, intellectual, spiritual, social/interpersonal, and/or environmental aspects) and societal responsibility.
4. Develop themselves as responsible citizens, employees and employers, family members and members of the global society.

Examples of relevant topics in Area E include, but are not limited to:

- Student success strategies
- Human behavior
- Sexuality
- Nutrition
- Physical and mental health
- Stress management
- Information literacy
- Social and political relationships
- Environmental sustainability
- Implications of death and dying
- Media literacy

## **Z. Cultural Diversity**

Courses that satisfy the Cultural Diversity requirement must include all of the following learning objectives and in addition be approved GE courses in any area or subarea except A.1, A.2, A.3, or B.4.

Students completing courses in Overlay Z shall

- a. Demonstrate an understanding of the ways in which culture, difference, and otherness are socially constructed and fundamental to social interaction in an inter-connected world.
- b. Demonstrate reflection and appreciation of the complex relationships that various factors such as gender, ethnicity, race, sexual orientation, religion, class, and exceptionality bring to a discussion of society and culture.
- c. Demonstrate a critical understanding of how power, privilege, and oppression play out across a range of cultures, human experiences, intersecting social locations, and historical experiences, including but not limited to one's own experiences.
- d. Recognize how one's own cultural histories and practices mediate one's own sense of self and relationships to others.
- e. Describe and understand how to enact ethical and transformative frameworks and modes of exchange and communication that promote rights, social justice, equity, and inclusiveness.

Courses in General Education that meet these learning objectives will be identified by an asterisk (\*) in appropriate publications or websites.

Source: General Education Committee

**EFFECTIVE DATE: November 20, 2018**

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and ASD 18-06