

Criteria for General Education Course Certification

American Institutions: The American Institutions General Education course will provide students with a multi-disciplinary introduction to history, principles, forms of government, and economic system of the United States. The course will help students learn how historical forces, political structures, economic institutions, and conflicting beliefs have shaped the American experience.

Fine Arts: A general education course in the creative arts will help students learn to: 1) Understand the significance of creative art by demonstrating skills of critical and aesthetic judgment, 2) Understand the creative art as a means of personal and social expression, 3) Demonstrate an understanding of artistic processes, 4) Demonstrate an understanding of the arts as historical and cultural phenomenon, 5) Create works of art and/or increase understanding of creative processes in writing, visual arts, interactive entertainment, or performing arts, 6) Demonstrate knowledge of key themes, concepts, issues, terminology, and ethical standards employed in creative arts disciplines; use this knowledge to analyze works of art from various traditions, time periods, and cultures, and 7) Explore the world through varying aesthetic perspectives.

Life Sciences: A general education course in the life sciences will allow students to apply the principles of scientific reasoning to data and discussions related to issues such as the impact of science on society, how society and science are connected, the impact of scientific understanding and advancement on technology, life, and the environment, and the historical contexts of scientific discoveries. Each course will contain the following learning objectives: 1) Understand and explain science as an iterative process driven by empirical observation and experimentation, and appreciate the limits imposed on our comprehension and knowledge by sensory, physical, or technical constraints. 2) Apply scientific methods by quantitatively investigating and assessing situations extracted from ordinary experience or from societal or environmental problems related to modern science. 3) Demonstrate understanding of some of the fundamental unifying principles of the life sciences, which include evolution, heredity and reproduction, essential chemical and physical components required for life, and the human role in, and impact on, the biosphere, including the importance of biodiversity and sustainability of ecosystems. It is expected that at least some of these unifying principles will constitute, or be central to, the majority of the topics discussed in each GE life science course.

Humanities: A General Education course in the Humanities will help students develop the ability to 1) Investigate complex texts concerning human experience and meaning through carefully reasoned and creative interpretations that are supported by research, analysis, and evaluation particular to Humanities disciplines; 2) Critically evaluate interpretations of these texts through precise reasoning and

the logical development, presentation, and defense of ideas in both oral and written form; 3) Engage in an informed and respectful way with culturally diverse points of view by participating in meaningful classroom dialogue across difference and developing consideration for and understanding the interdependence of diverse values, lifestyles, and traditions; 4) Formulate connections across disciplinary contexts between historical periods, cultures, theories and/or civilizations by understanding the influence of social, cultural, linguistic, and/or historical circumstances on the human experience; 5) Develop informed, ethical, and creative thinking through collaborative and independent work on philosophical, literary, theological, historical, or artistic texts. In addition to these required learning outcomes, classroom instruction will be led by a full-time faculty member with an advanced degree from a department in the Humanities (preferred), or from a part-time instructor hired and evaluated by these departments (if necessary).

Physical Sciences: A general education course in the physical sciences will allow students to apply the principles of scientific reasoning to data and discussions related to issues such as the impact of science on society, how society and science are connected, the impact of scientific understanding and advancement on technology, life, and the environment, and the historical contexts of scientific discoveries. Each course will contain the following learning objectives: 1) Understand and explain science as an iterative process driven by empirical observation and experimentation, and appreciate the limits imposed on our comprehension and knowledge by sensory, physical, or technical constraints. 2) Apply scientific methods by quantitatively investigating and assessing situations extracted from ordinary experience or from societal or environmental problems related to modern science. 3) Demonstrate understanding of the fundamental unifying principles of physical sciences, including the nature of forces, motion, and the flow of matter and energy through systems on different scales. It is expected that these objectives will constitute or be central to the majority of the topics discussed in each GE physical science course.

Quantitative Reasoning: Students may satisfy this requirement by completing at least one institutionally approved mathematics course that clearly demonstrates quantitative reasoning skills beyond those found within mathematics high school level-III and that is at an appropriate introductory university level. Traditionally, this requirement has been fulfilled by completion of Math 1030, 1040, 1050, or other institutionally approved courses. Approved courses will significantly focus on the following: 1) *Interpretation:* Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, and tables), 2) *Representation:* Convert relevant information into various mathematical forms, e.g. equations, graphs, diagrams, and tables), 3) *Calculation:* Demonstrate the ability to successfully complete basic calculations to solve problems, 4) *Application/Analyzation:* Make judgments and draw appropriate conclusions based on quantitative analysis of data; recognizing the limits of this analysis, 5) *Assumption:* Make and evaluate important assumptions in estimation, modeling, and data analysis, and 6) *Communication:* Express quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized).

Social and Behavioral Sciences: A general education course in social and behavioral sciences will help students learn to 1) Understand the nature, history, theories, and methods of the social sciences; 2) Comprehend debates about the relational, cultural, historical, and natural contexts that shape the human experience; and 3) Develop a comparative perspective, i.e., the ability to discern similarities and differences among individuals at different life stages, between individuals, between social groups within a society, between societies, and between historical periods.

Writing: General education courses in the first-year composition sequence, English 1010 and 2010, help students develop foundational writing skills and prepare students to: 1) Utilize writing and reading for inquiry, learning, thinking, and communicating, 2) understand writing as a process of generating, revising, editing, and proof-reading, 3) integrate their own ideas with those of others after evaluating the differences in quality between scholarly sources and unreviewed personal sources or web-based sources, 4) understand the relationships among language, knowledge, and power, 5) use a variety of technologies to address a range of audiences.