CUE funded General Education – History 2004

About General Education

General Education that fosters independent thought, opens minds and cultivates social responsibility sets the tone for Coordinated Undergraduate Education. General Education stresses interdisciplinary studies and engages faculty in a search for the unifying themes and patterns that underlie the various disciplines, professions and technologies. Moreover, the ubiquity of new information media that has transformed learning environments makes information literacy, defined as the critical management of information resources, an essential competency for our times. Information literacy is therefore an integral component of general education. The locus of responsibility for general education is college-wide. Faculty are engaged not only their own areas of specialization but in advancing general education competencies as well. Writing Intensive Courses and Core Text Courses are examples of models that bring general education proficiencies within areas of specialization.

Overview of General Education Curriculum Goals

The college has created a General Education Initiative for the following purposes:

1. to establish a coordinated system of academic and administrative support for general education; to discover points of intersection, identity common goals and encourage collaborative practices;
2. to provide support for innovative projects through intensive faculty development and collaboration to explore new pedagogical models and interdisciplinary approaches;
3. to develop models for integrating core courses and general education competencies with the majors, technologies and the professions.

Whatever a student's major or professional aspirations, the college seeks to provide every student with a sound general education. By “general education” the college means the development of various competencies, skills and attitudes that correspond to specific areas of inquiry. All competencies and proficiencies are taught across the curriculum and throughout undergraduate education. The integration of general education with specific areas—sometimes clear and measurable, sometimes barely intuited—are to be pervasive and may be achieved through leaning communities, writing intensive courses, core text courses as well as other models. Innovation and improvement of such general education models are to be ongoing.

The inherent complexities in educating a diverse population open up ways of positive response. Integration is one method of reinforcing general education in all three schools of NYCCT. At City Tech, the necessary breadth and variation of general education accommodates the college community's rich variety of cultures and languages. The opportunities for exploring various modes of integration are increased by the sheer diversity of City Tech's student population.

General Education often stresses the development of competencies, skills and attitudes rather than the accumulation of discrete, general education courses. Competencies fall under the broad categories of communication, critical thinking, information literacy, scientific and mathematical literacy, humanistic and social inquiry.

General Education Competencies

I. COMMUNICATION

a. Reading
    i. comprehending the meaning of texts
    ii. analyzing and synthesizing written material

iii. critically evaluating and responding to texts

b. Writing
   i. writing scientific or technical material
   ii. writing to describe, prescribe, persuade or criticize
   iii. writing creatively

c. Speaking
   i. presenting a formal speech
   ii. speaking extemporaneously
   iii. speaking to persuade or speaking to describe
   iv. speaking creatively

d. Listening
   i. Attending to detail and analyzing content
   ii. Clarifying and remembering meaning

II. CRITICAL THINKING

1. using formal and informal logic for argumentation
2. interpreting and criticizing texts
3. analyzing complex issues and arriving at informed positions
4. synthesizing information to arrive at reasoned conclusions
5. interpreting and evaluating information from a variety of sources
6. integrating types of information into one's system of beliefs
7. transformation of information into knowledge and knowledge into judgment and action.

III. INFORMATION, RESEARCH & COMPUTER SKILLS

1. determining when information is needed
2. acquiring the information that is needed
3. evaluating the quality of the information
4. synthesizing information from several, possibly conflicting sources
5. using appropriate technology for acquiring needed information
6. using information ethically and legally

IV. SCIENTIFIC AND MATHEMATICAL LITERACY

a. Scientific Literacy
   1. understanding the scientific method
   2. recognizing the importance and contribution of science to human progress
   3. understanding the historical development of the human sciences
   4. appreciating the interrelationship among the sciences and between science and mathematics
   5. understanding statistical analysis in evaluating scientific data>
   6. interpreting scientific literature and writing scientific reports
   7. using science ethically and legally

b. Mathematical Literacy
   i. stating a problem and translating it into mathematical statements
   ii. performing a rigorous and detailed analysis using appropriate technology
   iii. forming a clearly stated and well-justified conclusion

V. HUMANISTIC AND SOCIAL INQUIRY

a. Cultural and Multicultural Literacy
    1. understanding one's own cultural traditions
    2. understanding and respecting the diversity of human experience
    3. understanding the interconnectedness of global and local concerns
    4. incorporating into one's own world view a comparative, historical and global perspective on the diversity of human experience
    5. recognizing the moral dimension of one's own decisions and actions
b. Humanistic Literacy
    1. understanding social and political institutions
    2. recognizing a variety of perspectives that emerge from new scholarship on gender, race and class as well as from non-Western cultural traditions
    3. recognizing the importance of aesthetics in one's own life
    4. engaging in various forms of art and in the artistic process

General Education

a. Broad Cross-Cutting Competencies

The term "Liberal Arts Education" has generally come to mean the classical curriculum that has shaped contemporary, higher education. Its ideas are expressed in the injunction "Know Thyself," the posture of the inquirer, eager to examine their own or any other system of beliefs. Its goal is to educate the free person, education itself liberating the mind from ignorance. The term "General Education" is considered that part of a liberal education shared by all students. "Specific Education" is also a part of liberal education. Students freely chose their own course of study. The general focuses on scope and breadth, the specific on depth and concentration. The term "Core Curriculum" refers to the specific courses chosen in various areas of inquiry, providing broad exposure to multiple disciplines. "Core" is difficult as it points to the ancient, metaphysical notion of substance, essence, being, elusive words. So, "core" probably has little meaning outside a specified set of courses designated the "Core Curriculum."
General Education stresses the development of various types of competencies that are taught and reinforced throughout undergraduate education and across all disciplines.
Competencies have been broadly categorized into communication, critical thinking, information literacy, research and computer skills, scientific and mathematical literacy, and humanistic and social inquiry. These have been further refined. Reading , writing, speaking and listening, for example, fall under communication. Formal and informal logic, interpretation, criticism, analysis, synthesis and evaluation fall under critical thinking which is widely thought to be the most extensive of all competencies. No inquiry is possible without logic. The Organon , or "instrument," is always the leading treatise in the corpus of Aristotle's writings, an examination of the tools of thought that are used in order to think; grammar, terms, statements, arguments, the language of science, categories of existence, in short, logic or "critical thinking." Formal and Informal logic are typically taught in philosophy, social science or humanities departments. Much of the content of informal logic is what is often called "critical thinking."

b. Interdisciplinary/Disciplinary Continuum

The dichotomy can again be divided into the specific and the general or major programs and general education. Increasingly, general education is being seen as a college wide responsibility. Faculty are engaged not only in their own areas of specialization but also general education, and the commitment to general education across all disciplines is growing more important as a measure of assessing faculty. General education is no longer seen as confined to the first or second years of undergraduate education. Courses within majors and the professions are increasingly expected to address general education knowledge, competencies and attitudes. We note some trends in the sorts of programs and commitments. Learning communities, theme based courses, common readings, freshman year programs, writing across

the curriculum, great works courses, the integration of great works into courses. These are some of the more well known commitments that make up the common terminology of general education.

c. Moral, Ethical and Historical Dimensions of Science and Technology

Numerous fields of study have been linked with moral philosophy. We see in curricula business ethics, ethics and technology, ethics and society, biomedical ethics, nursing ethics, ethics and the professions, ethics and the family, ethics and social work, ethics and the legal system, engineering ethics, ethics in literature and philosophy, to name a few. No field of study, it seems, is without ethical concerns. Work in genetics and cloning are striking examples. What sort of moral notions has this technology summoned? Self, other, parenthood, property, relation, family, marriage, reproduction, identity and the value of life. Today we hear the call for integration while others insist on the autonomy of the humanities. The same tensions emerge between the general and the specific; moral philosophy vs. nursing or history of technology vs. engineering. Should the humanities remain fully autonomous, a venture unto itself? Should they apply themselves outside of their fields, in the service of the technologies and the professions? Is integration possible? Great works or texts have been integrated into the technologies, professions and careers. Some have integrated histories of technology with histories of moral philosophy. Others' attempts at integration merge interdisciplinary areas; Society, Ethics and Technology, Environmental Philosophy, Science and Values, Literature and Mathematics, to name a few. Integration, here, is not spoken of in the way we speak of the integration of colors. A great history of science is sometimes paired with a physics text. Each retains its identity. Where is the obvious integration? An understanding of context? Some have wondered why we insist that integration is a condition for linking multiple areas. Integration may slowly be discovered in bits and pieces, long after the fact. The need to discover an integrative link between two apparently, disparate fields in order to justify the pairing of these fields perhaps forgets for a moment the initial motive to the liberal arts and sciences; simply a desire for and a pleasure in knowing. Application, utility, usually come as an afterthought.

d. Global Perspectives: Cross-Cultural Competence

According to “Middle States Standard 12” :
“General Education should draw students into new areas of intellectual experience, exploring their cultural and global awareness and sensitivity…a program that incorporates the study of values, ethics and diverse perspectives.” Under various core curricula, the following commitments to global studies can be found: Studies in Race, World Civilization, Nature and Culture, World Literature, Cultural Diversity, World Politics, Contemporary World Views, Western Civilization and the World, World Religions, International Perspectives, Multicultural Studies, Foreign Languages, Studies in Non-Western Literature.

Core Texts and Courses

This year General Education is trying to bring together a collection of readings for the three schools of City Tech. Faculty have been asked to submit great works that might be incorporated into their courses for the spring term 2005. The basic idea is to select a set of core works that have relevance for Technology and Design, Liberal Arts & Sciences and Professional Studies. Here is an instance where the Liberal Arts and Sciences/Humanities can play an informative and enriching role by entering into the specific practices and discussions of the professions and technologies. Here, faculty are engaged in teaching their own specializations as well as general education. We use the word “core” rather than “classics” or ”canonical” to suggest that works are not limited to the Ancient Near East, Greece and Rome; “texts” rather than readings to suggest that works are not confined to the written word but may include art forms of any genre. “Core Texts” is to be broadly construed, what we take to be a great work. What is important is that the works we select are works we ourselves find great and would reread or read for the first time, works perhaps we have not had the time for because we are too busy with work.
The integrative link between a work in the Humanities with a specific discipline can be known beforehand but need not be a condition for integration. Connectedness—implicit or explicit—can be found along the way. At this point, the link may not be clearly formulated, only a sense that there might be something there

worth pursuing. Works are then seen as discovery rather than prediction. Either will do. Interest and commitment to the work is what matters.
Objectives

1. be familiar with a wide range of readings from core texts dealing with issues that have contemporary significance
2. develop the ability to analyze these texts and make connections among them, classroom work and personal experience
3. see core texts as a way of understanding and appreciating diverse views from other cultures
4. develop critical thinking skills that are commensurate with upper level students
5. hone writing skills by writing critically and reflectively on the readings and classroom work
6. develop the ability to speak publicaly by participating in discussions and by leading a class discussion
7. make connections between various major fields of study and the readings

Contact General Education

Walter Brand
CUE General Education
New York City College of Technology
300 Jay Street, Room N-600
Brooklyn, New York 11201
Phone: 718.260.5077