NOTES ON GENERAL EDUCATION FOR CAREER-TECHNICAL PROGRAMS (CTE)
Prepared by Marcia Roberts-Deutsch for the CPC ad hoc subcommittee, 2/2/2011

The ACCJC criteria for General Education (Standard II.A.3) include the following comprehensive learning outcomes, understood to pertain to all students completing associate degree programs:

1. An understanding of the basic content and methodology of the major areas of knowledge: areas include the humanities and fine arts, natural sciences, and social sciences.

2. A capability to be a productive individual and life-long learner: skills include oral and written communication, information competency, computer literacy, scientific and quantitative reasoning, critical analysis/logical thinking, and the ability to acquire knowledge through a variety of means.

3. A recognition of what it means to be an ethical human being and effective citizen: qualities include an appreciation of ethical principles; civility and interpersonal skills; respect for cultural diversity; historical and aesthetic sensitivity; and the willingness to assume civic, political, and social responsibilities locally, nationally and globally.

These general and comprehensive guidelines should serve to identify the components needed in meeting general education requirements for CTE. However, it should also be noted that each of the three areas outlined above are qualitatively different, and thus may be most effectively addressed in different ways, requiring us to think beyond the basic course/credit distribution model.

We could begin by thinking about three basic categories of curriculum in connection with the three criteria identified above:

1. **Major areas of knowledge**: These represent the most consistent and conventional subdivision of academic disciplines: Arts and Humanities, Natural Sciences, Social Sciences each contain a diverse array of more focused fields of study, but also, within each grouping, have much in common. The focus on methodology as well as content also links to skills and qualities identified in the other categories.

2. **Skills** or competencies: These are essential tools for acquiring and communicating an understanding of knowledge gained in the major areas of knowledge, as well as for functioning effectively as a participant in an academic community and the work environment. Within this category, a differentiation could be made between skill acquisition best served by focused coursework—oral and written communication, computer literacy, quantitative reasoning—and another set of skills that could be embedded and exercised within the context of other academic work.
3. **Qualities** of the individual person: It is certainly possible to identify specific coursework that would focus on one or more of these qualities as a specific learning outcome. However, it might be better to think of these qualities as ones that should be infused throughout the curriculum—characteristics that should be cultivated continuously on all levels, from the ethos of the college, to interpersonal conduct, to individual character.

Based on these criteria, and on the various requirements advocated by different members of the campus community, we are currently considering the following as general education requirements:

I. **AREAS OF KNOWLEDGE / SUBJECT MASTERY:**

1. ARTS AND HUMANITIES
2. NATURAL SCIENCES
3. SOCIAL SCIENCES

II. **SKILLS / COMPETENCIES:**

1. WRITING
2. NUMERACY / SYMBOLIC REASONING
3. COMPUTING LITERACY
4. ORAL COMMUNICATION

The simplest, but also the least creative and most potentially burdensome, solution would be to increase the required number of general education credits—from the current minimum of 15 to 21-22 (if a lab science is included.) Clearly, as a more viable alternative, we should think about how these requirements could be met in ways that a) would enhance students' program-readiness, and b) allow them to move more successfully through the courses required for completion of their degree program. In this context, we understand general education as a complement to CTE.

How, then, to manage the credit question while at the same time ensuring that general education requirements (however they will be categorized and defined with hallmarks) can be met? Three basic approaches, which would likely be used in combination, include the following:

First, CTE programs would examine their current program prerequisites and consider whether these are set at a level that has kept pace with changes in curriculum and workplace needs. The college has engaged in bold initiatives to address the fact that students enter our doors not well-prepared for college-level work. Entrance exams (e.g., placement tests) could provide an alternative to taking a course to meet a general education requirement. This “frontloading” approach could include a testing-out option as a means of meeting one or more general education requirements before formal entry into a program. This approach would be most appropriate for and work best with skills/competencies in writing, numeracy and
computing literacy. It might also be addressed in a format other than the traditional semester-length course (e.g., a summer “boot-camp,” or bridge program) or with the organization of curriculum into discrete self-paced modules (as has been suggested by ICS.)

Second, other general education requirements could continue to be met through the guided selection of courses from among specified categories. These could be taken in semesters designated by a program, possibly taking into account the best fit between general education and program requirements. This strategy would be most appropriate to specific areas of knowledge (the traditional liberal arts disciplines) but could also apply to oral communication, which, although it is an essential skill, is not “testable” in the same way that the other skills are.

Third, other specified skills (e.g., scientific reasoning, or ability to acquire knowledge through a variety of means) as well as the desired human qualities are probably best addressed through applied and cumulative practice, which could be assessed and validated through the kind of mapping that has already been done by several of the CTE programs.

In summary:

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<thead>
<tr>
<th>Prereq / Test-out option</th>
<th>Arts / Humanities</th>
<th>Natural Sciences</th>
<th>Social Sciences</th>
<th>Writing</th>
<th>Numeracy &amp; Symbolic reas.</th>
<th>Computing Literacy</th>
<th>Oral Communication</th>
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<tr>
<th>Course Completion</th>
<th>Arts / Humanities</th>
<th>Natural Sciences</th>
<th>Social Sciences</th>
<th>Writing</th>
<th>Numeracy &amp; Symbolic reas.</th>
<th>Computing Literacy</th>
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<th>Embed or disperse throughout the program</th>
<th>Prereq / Test-out option</th>
<th>Arts / Humanities</th>
<th>Natural Sciences</th>
<th>Social Sciences</th>
<th>Writing</th>
<th>Numeracy &amp; Symbolic reas.</th>
<th>Computing Literacy</th>
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<td>Ethical Principles, Cultural Diversity, Historical and Aesthetic Sensitivity</td>
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<td>Scientific Reasoning</td>
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<td>Political and social responsibility</td>
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Outcomes that would pertain across these categories include:
Information competency, critical analysis/logical thinking, ability to acquire knowledge through a variety of means; civility and interpersonal skills as well as qualities embedded in the liberal arts disciplines.