

GE Model and Curriculum Design Principles  
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The implementation of a General Education program is not an aside to other programs in the curriculum but rather an interdisciplinary infusion of academic activities and pursuits that develop students' creativity and critical capacities. General Education has multiple goals, from development of new lenses for problem-solving to creating the possibility of career agility.

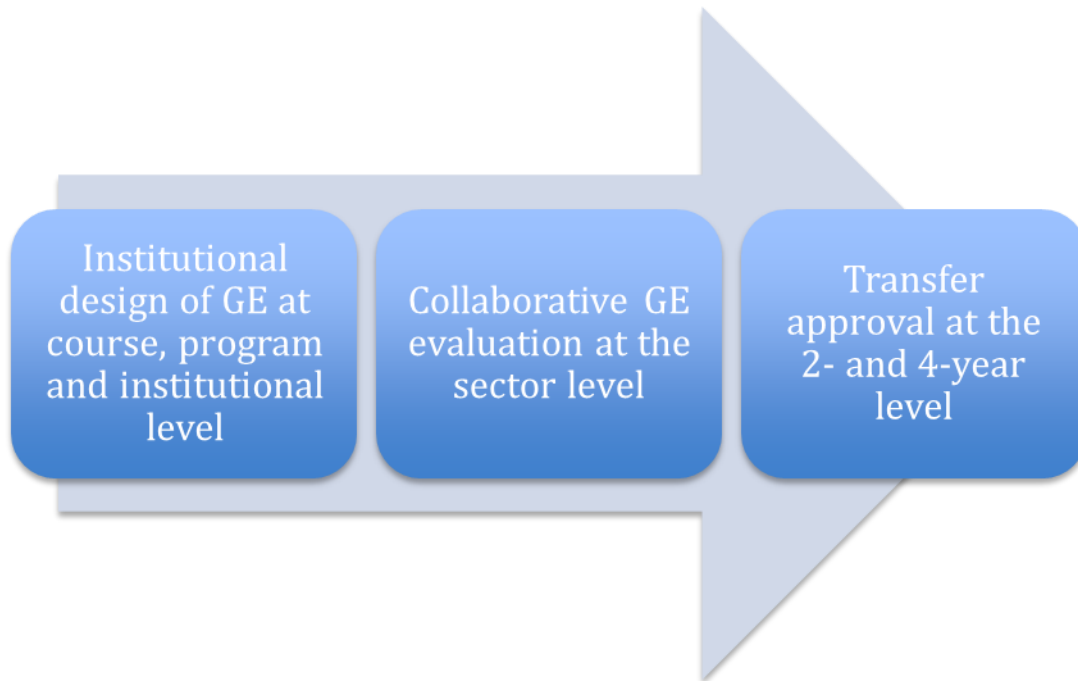
The challenge of General Education is to train students to bring meaning to their disciplines across the institution. Guskin (1994) talks about expectations for undergraduate students, that they "develop skills in writing and communication, in the use of quantitative and scientific methods, in the learning of a foreign language. Even more importantly, we have strong expectations regarding student conceptual learning, the development of conceptual, intellectual tools that enable them to compare and contrast the material they are acquiring, and to make judgments about its relevance to other issues of concern as well as their own personal development. "

These expectations for conceptual and intellectual development across the canon are placed squarely on the General Education disciplines. General Education is the source for students' bringing conceptual analysis outside of one's specific discipline's "ways of knowing." Therefore, effective General Education is not a list of courses that students take, but rather an effective interrelated student experience.

Developing a truly effective General Education program is challenging for staff and administration alike. Coursework in the professions may be generally straightforward, based in a body of knowledge that might be tested by a third party, like the Certified Public Accountancy exam in the United States. On the other hand, courses in the GE disciplines, for GE majors, may well have long-agreed-upon goals, such as which writers every literature major should know. However, General Education for all students requires that staff across the disciplines come together to define "educated" and to devise a map of curricular infusion that will ensure that students achieve a particular level.

It is difficult to move a General Education and transfer agenda forward without intra-sector collaboration. Complicating the task is the need to measure and prove the effectiveness of sub-degree General Education efforts as evidenced in student outcomes. Faculty in each institution, as well as intra-sector, must define the outcomes, then measure their attainment. This is a continuous improvement process, wherein staff continually review and revise their curricula. In an effective General Education program, the defining and measuring of student outcomes is inescapable.

In short, an effective General Education design is accomplished at three levels: institution, sector, and higher education.



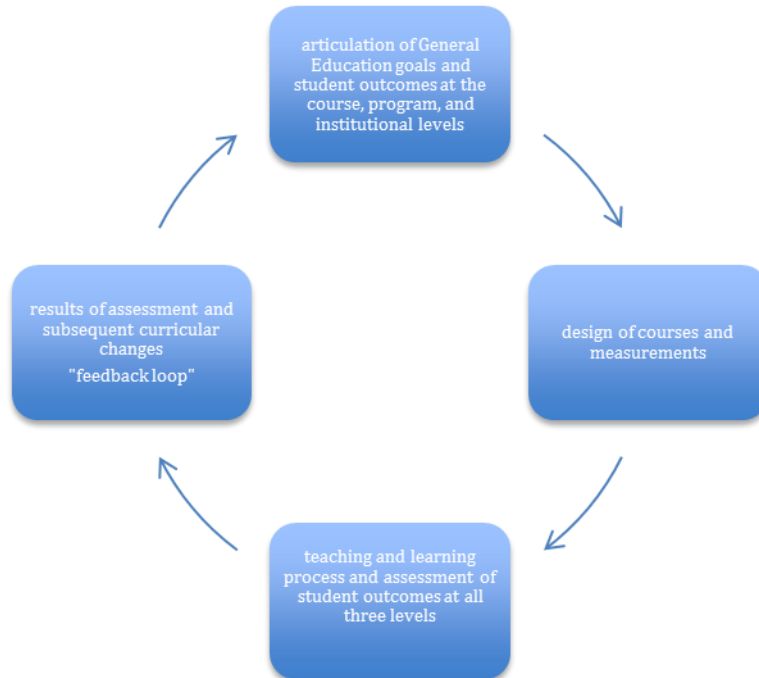
#### Institutional Level Design:

A great deal of work is accomplished at the institutional level. Course design may begin at the individual or departmental level, but then goes through an institutional process. Unlike courses that are specific to one discipline only, General Education courses often require a broader review. An effective GE program requires not only intra-departmental collaboration but interdisciplinary effort to define the goals and desired outcomes of GE. Hence, effective General Education design must be rooted in a form of collaboration that few staff have experienced outside of their own disciplinary groups. Courses are designed and institutionally reviewed. Model syllabi are developed, which include the means to assessment of student outcomes.

An additional challenge is to determine how to evaluate if the goals of General Education are being accomplished, as demonstrated in student learning outcomes. Many staff, especially in the Liberal Arts, are not prepared to holistically evaluate student learning. This task is further complicated by the need to determine if students are attaining these goals at the course, program, and institutional level.

Then, information on student outcomes must be “fed” back into the system, in order to provide the evidence needed for continuous improvement.

The process is appropriately depicted as follows:

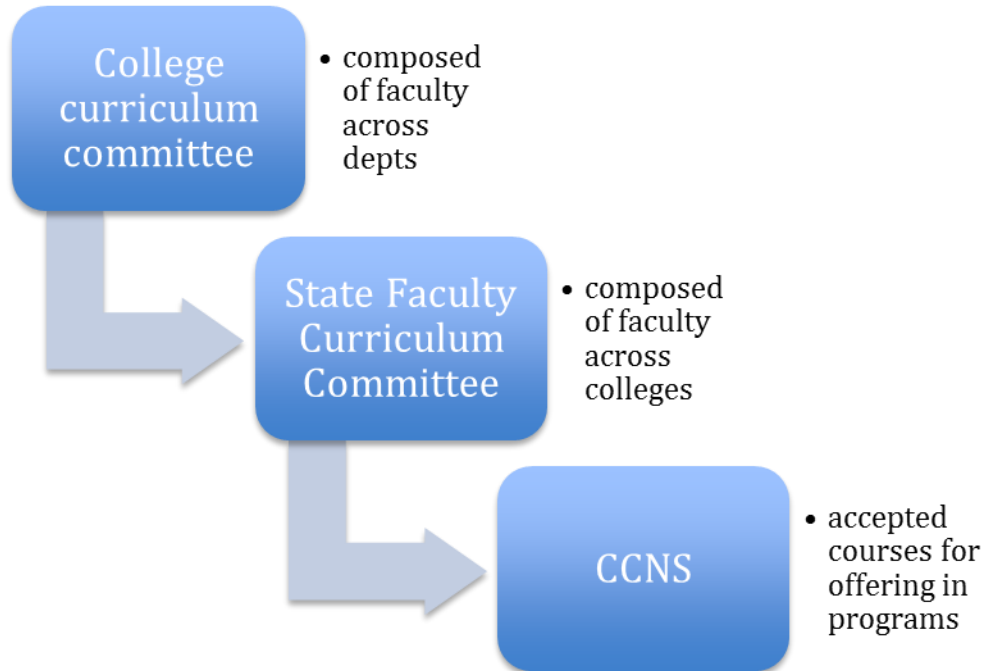


At the Community College of Aurora (CCA), in Colorado, U.S., some 15 years ago, the faculty gathered to discuss General Education and their philosophy of what it means to be educated. The product of those discussions, and of many other discussions and innovations in the subsequent years, was the development of CCA’s lifelong skills, which every student is expected to experience and attain in the course of their associate degree education. The skills are enumerated across the campus, on posters and in course syllabi, by faculty and by students: Written and oral communication; Critical Thinking; Quantitative Reasoning; Technology; Aesthetics; and Personal Responsibility. These are skills that may be emphasized to a greater or lesser degree across the programs. However, two of the skills, Written and Oral Communication and Critical Thinking, are to be taught and assessed in every program. The College Assessment committee, which is an interdisciplinary group made up of faculty and administrators, oversees the implementation of these skills and their assessment. Assessment of student outcomes is critical.

Over the course of the nearly fifteen years since the Lifelong Skills were introduced at CCA, there have been many peaks and valleys in their implementation. One of the most challenging hurdles has been that of consistency—of application, of evaluation, and of improvement. Data must be collected longitudinally and evaluated continually. And data are of no importance without the feedback loop that ensures improvements in the teaching and learning process. Further complicating the process is the requirement, enforced through accreditation, that articulation and assessment of outcomes be at the course, program, and institutional level.

Sector-level process:

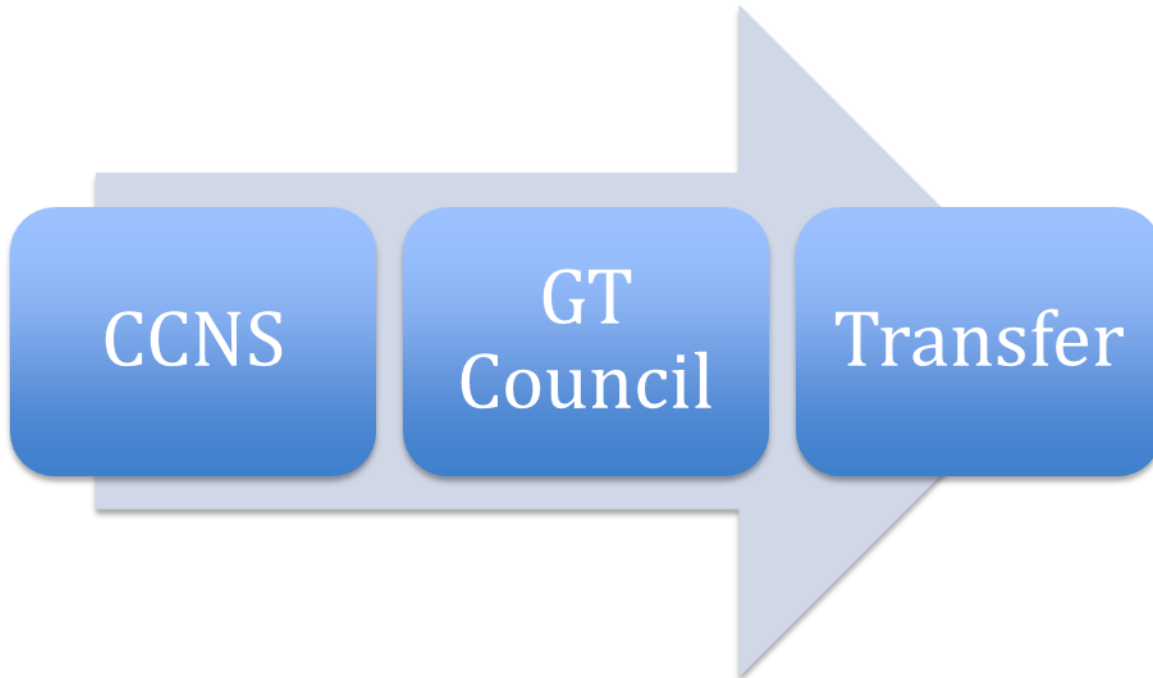
Sub-degree institutions are challenged to collaborate. In Colorado, U.S., there exists a state system of public community colleges. Although the colleges compete for students, they come together to commonly number and describe courses, which are then accepted into a common course numbering system (CCNS). The State Faculty Curriculum Committee, which includes a faculty representative from each institution, makes decisions about inclusion of courses into the CCNS. This is a critical step that precedes requests for courses to be proposed for transfer to four-year institutions.



#### Transfer proposals:

Some of the courses within the Common Course Numbering System may be proposed by the faculty for consideration at the state level for transfer. These courses are proposed to the GE 25, a council made up of representatives from the 25 state institutions, both two- and four-year, who consider the course content, level, and equivalency of General Education. Courses accepted into the GT list (Guaranteed Transfer) are then transferrable to the public institutions statewide. Although the private institutions do not participate, many of them do accept the courses in transfer.

Transfer of credit is dependent upon this carefully crafted structure of course approval:



Thus, it is imperative to empirically demonstrate that colleges are effective—that they know that students are learning—and hence transfer of credit from one sector to another cannot be argued against on the basis of lack of equivalence or rigor.

Ironically, General Education (or Liberal Arts) is at a pivotal crossroads in the United States. Seeking to compete globally in business and in STEM (science, technology, engineering and mathematics), students are increasingly choosing the professions and avoiding the Liberal Arts. Meanwhile, institutional staff are struggling to assure that General Education is infused across the departments and disciplines.

Victor E. Ferrall, Jr., ninth president of Beloit College, in his 2011 book, *Liberal Arts at the Brink*, writes about the role of liberal education in an advancing society. In his inaugural address, October 5, 1991, he defines the “liberally educated person” as one who “seeks to connect knowledge within his or her mind and, in so doing, makes connections with other minds.”

In 2006, Derek Bok published *Our Underachieving Colleges: A candid look at how much students learn and why they should be learning more*. Bok, the former president of Harvard University who led the institution through a comprehensive review of its undergraduate education, notes the widespread concern that undergraduate education lacks an overarching purpose (preface). He further notes that student enrollment in the professions, the so-called occupational or vocational disciplines, has increased while student enrollment in traditional liberal arts, especially in the humanities, has declined. He cites criticism of faculty for focusing in greater measure on research and less on students. Further, Bok states that American higher

education must focus on how much students are learning and what effect college is having on their development. Bok points out the pre-American Civil War objectives of colleges, “training the intellect and building character.” He references the 1828 Yale College report that stated the principal aim was “not to supply all of the important information that students might some day use but to instill mental discipline.” This aim seems particularly apt in the 21<sup>st</sup> century, when obtaining information is easily accomplished by “google-ing” over remarkably widely-owned handheld devices.

In 2011, the U.S. higher education was thrown on the defense with the publication of *Academically Adrift*. Arum and Roksa, professors at New York University and the University of Virginia respectively, reviewed institutional mission statements, finding that they rather uniformly pledge that schools will “work to challenge students to ‘think critically and intuitively,’ and to ensure that graduates will become adept at ‘critical, analytical, and logical thinking.’ These mission statements align with the idea that educational institutions serve to enhance students’ human capital—knowledge, skills, and capacities that will be rewarded in the labor market.” But they charge that colleges and universities are falling short.

There exists in the U.S. a concern that generally students are not sufficiently committed to their academic pursuits, and that neither families, faculty, nor institutions are holding them accountable. There also exists the charge that higher education has failed to demonstrate for students the relevance of what they are learning. Part of the blame is leveled against research institutions, wherein tenure decisions are made based heavily on research output, not on teaching.

This leads, however, to an advantage for the two-year college sector. Their emphasis is on teaching. Best practice dictates that as two-year, community colleges focus on student learning—the outputs rather than the inputs of the teaching and learning paradigm—students will make greater gains. And educators will be assured that students are learning according to the purposes and design of General Education.

As the sub-degree institutions in Hong Kong undertake the development and implementation of General Education, with an eye to university transfer, the lessons of the American experience of the last twenty years are appropriate. Hong Kong tertiary education is advantaged in that the fourth year is being brought on in addition to the already-excellent education in the disciplines that students experience. But it is not enough to simply add General Education. It must be infused into the curriculum and into the culture.

The following steps are recommended for consideration:

- Ensure that staff across the disciplines engage in a rich dialogue about the meaning of General Education for their institution.

- Push to ensure that the General Education courses work together to develop the skills students need to think critically and problem-solve across the curriculum.
- Encourage sub-degree sector staff to participate in a process of identifying the role of General Education, parallel to the four-year staff's process.
- Support staff as they go about the difficult work of deciding how each General Education course will contribute to the overall ends of General Education at each institution.
- Train staff on the assessment of student learning at three levels: the course, the program of study, and the institution.
- Be a research institution, not in the disciplines, but in the assessment and analysis of student outcomes. Use data to determine best practices in the education of students in General Education. Become the research institutions that add to the knowledge on student success.
- Utilize the research on the Science of Learning.
- Develop model syllabi for every General Education course, ensuring that the defined student outcomes can be met.
- Integrate General Education across the college. Support the work of interdisciplinary teams, who come together to refine General Education in the institution and who also provide support for staff across the disciplines.
- Prepare staff to work with the four-year sector staff, holding conversations about the role of General Education and the measures of its effectiveness.
- Support staff and hold them accountable by feeding back data on the effectiveness of their efforts and the continual changes required.
- Lead all of higher education in the evaluation of student outcomes.

Back in the late 1990s, faculty at Red Rocks Community College in Lakewood, Colorado, invited in members of the business community to discuss their perceptions of graduates' capabilities and their needs for a prepared workforce. In the course of those roundtable discussions, a Certified Public Accountant and owner of an accounting firm stated that he needed employees who can think critically, evaluate options, communicate clearly, and work collaboratively. He then stated that he did not care whether his accountants had studied history or philosophy. His statement, though he did not realize it, was an indictment of higher education's failure to connect the value of General Education to the practicalities of the economy in the mind of the public. General Education is the source for the skills he enumerated. But the careful, effective implementation of General Education is requisite for the desired results.

Sub-degree sector staff can and should be the leaders in designing, implementing, evaluating, and improving General Education for students. The support of the sector's leaders is critical to the success of the institutions, but more importantly, of the students, whether they transfer or enter the world of work.

General Education must be designed to address these many questions. The institutional philosophy must be clearly articulated; the structure must be determined and the evaluation of student outcomes must be devised in advance. Effective GE provides the student, the faculty, and the institution with a strong foundation. Students will gain greater knowledge and insight; faculty will engage across disciplines; and institutions will assure their four-year counterparts of graduates' readiness for transfer.



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