

General Education Core Curriculum Review Committee

Progress Report Covering the Period: August 2003 - December 2003

During the summer of 2003 the General Education Core Curriculum Review Executive Committee (GECCR-EC) developed a list of activities to be carried out during the fall, 2003 semester. This action plan was shared with the larger General Education Core Review Committee (GECCR-C), the University faculty at large (at the Faculty Staff Institute in August, 2003 and at Town Hall Meetings in October, 2003), and via the committee's website <http://www.ncat.edu/~simkinss/gened/>.

The action plan included the following activities:

1. Conduct University-wide discussion on general education learning objectives
2. Determine constraints affecting general education reform, including
 - a. Accreditation requirements
 - b. UNC-Community College articulation agreements
 - c. Credit requirements specific to individual degree programs
3. Arrange/hold workshops on general education related topics for the university community
4. Gain NCAT Faculty Senate approval of broad general education learning objectives
5. Develop preliminary general education curriculum based on approved learning objectives

The remainder of the report summarizes the committee's activities during the fall, 2003 semester and provides a preliminary list of activities for the spring, 2004 semester. As the summary indicates, much of the fall, 2003 semester was spent on obtaining and summarizing feedback from faculty on general education learning objectives, as well as issues of structure, process, and governance of the revised general education program.

1. University-wide Discussion on General Education Learning Objectives

During the fall, 2003 semester the GECCR-EC led a series of school/college-based Town Hall meetings to solicit faculty feedback on the draft statement of General Education Learning Objectives. The schedule of these meetings is listed below.

- Oct 2: Engineering (McNair Hall)
- Oct 8: Arts and Sciences (General Classroom Building)
- Oct 10: Education (Gibbs Hall)
- Oct 20: Nursing (Noble Hall)
- Oct 21: Technology (Smith Hall)
- Oct 28: Agriculture (Webb Hall)
- Oct 31: Business and Economics (General Classroom Building)
- Nov 5: Open (Barnes Hall)

Most of the faculty in each school/college were able to attend at least one town hall meeting; in some cases the town hall meetings were included as part of the regularly scheduled

monthly school/college meeting. Comments from faculty were recorded and posted on the committee's web site soon after each town hall meeting. Judging from the level of faculty interaction and the number of comments noted during the town meetings, as well as additional comments submitted in writing after the meetings, it is clear that the faculty have contributed enthusiastically and positively in the process of revising the learning objectives. In addition to providing feedback on the learning objectives, comments and suggestions were made on the structure and governance of the general education program as well as on the need to maintain a balance between general education and major discipline credit hour requirements.

While much of the work during the fall semester focused on interaction with faculty to understand their concerns and to assimilate their feedback on the learning objectives, the GECCR-EC and GECCR-C met on the first and third Wednesdays of each month, respectively, to share new ideas and review progress made.

In early November, the GECCR-C divided into three sub-committees, each responsible for summarizing one category of feedback from the town hall meetings. The composition of the subcommittees is as follows:

- Learning Objectives and Outcomes
Bell, English; Burns, Math; Howard, Agriculture; Kebede, Physics; Kelley, Engineering; Roberto, History; Simkins, Business (Chair)
- Accreditation/Major Constraints, Curriculum, Credits
Dewberry, Arts & Sciences; Foushee, Biology; Gillispie-Johnson, Technology; McIntosh, Nursing; Williams, Library; Davis, Sociology (Chair)
- Structure and Process
Brewington, Provost Office; Harris, Student Affairs; Larson, Education; Watkins, Music; Williams, Provost Office; Sarin, Engineering (Chair)

Summary of Faculty Feedback on General Education Learning Objectives

Below is a summary representing comments from faculty members at the general education town hall meetings during October, 2003, organized by the eight original learning objectives drafted by the GECCR-C during spring, 2003.

Objective 1: Effective Communication Skills

This objective produced the largest number of comments. As noted by many, both "written report *and* oral communication" need to be emphasized. A number of people noted that this objective should be broken into two separate parts, emphasizing written and oral communication skills separately. For example:

- Organize and prepare a written report that defines a specific question or line of inquiry; identifies and interprets a variety of relevant reference materials; summarizes available evidence; expresses and documents well-reasoned conclusions; and provides proper attribution to materials referenced.

- Develop and deliver a cogent oral presentation that accommodates audience needs, accomplishes a specific communication objective (information, persuasion, motivation, etc.), is supported by appropriate supporting materials prepared in various media.

The Gen. Ed. program should move students' skill levels beyond the "basic" level, although one commentator emphasized that effective listening, reading, and comprehension skills should be included in this objective. A number of comments indicated that writing skills need to be emphasized beyond the first two years of college, into the major and across disciplines. A number of people believe that the first three objectives, focusing on communication, quantitative, and scientific reasoning skills, should carry more weight than the remaining five, especially since Gen Ed must be connected to the needs of different majors, which in turn require different knowledge-based objectives. There are others, however, who feel that the other objectives should be given equal weight.

Objective 2: Effective Quantitative Skills

The general thrust of comments emphasizes the need for practice and application in addition to mathematical and statistical theory. Students need practice developing general quantitative reasoning skills: knowing when to use mathematical/statistical tools to answer a question or provide evidence, knowing which tools to use, carrying out the mathematical/statistical method correctly, and then relating the mathematical/statistical process back to the original question. Students need to move beyond the performance of math problems to "developing mathematical concepts from ambiguous or open-ended (word-based) problems" – from "what do I do" to "why am I doing this?" In addition, there is once again the need for the Gen. Ed. program to move students beyond the "basic" level. One respondent suggests requiring all students to take Math 111 (College Algebra and Trigonometry) instead of Math 101 and Math 102.

Objective 3: Scientific Method

Some thought that this was one of the strongest objectives, as written. Science within the Gen. Ed. Sequence needs to be viewed not in terms of traditional disciplines (biology, chemistry, physics, e.g.) but as a "way of thinking" that is applicable in a wide variety of majors. Students should be introduced to "accepted" methods of scientific inquiry in a variety of disciplines.

Notes: (1) One faculty member notes that the first three learning objectives are all grounded in practice, as are a number of the others. Doesn't the role of practice clarify the epistemological bases of all our learning objectives? (2) Another faculty member would like to see the first three objectives subsumed under the larger objective of "promoting critical thinking" and notes that we should strongly promote critical thinking skills in the general education program and make clear to students and faculty the intentionality of this focus. (3) A number of the comments from Objectives 1 through 3 focus on moving students beyond the "basic" level and the need for remediation for those students who do not perform at university-level standards, especially with regard to objectives #1 and #2.

Objective 4: Diversity/Global Cultures

We need to change wording of “global world.” It’s redundant. Beyond that, there is faculty support for a Gen. Ed. curriculum grounded in the concept of global diversity, in particular, emphasizing the need to expand opportunities for students to study abroad and to take advantage of exchange programs. Also, faculty development will be crucial to this objective.

Objective 5: African-American Culture

There is some support for merging Objectives 4 and 5 on the basis of a curriculum grounded in global diversity. However, a number of comments (most of these comments originated in the School of Nursing) exhibit concerns that moving the focus off of African-American culture may diminish the traditional and historic role of A&T as an HBCU; these comments make it clear that A&T must reaffirm that historic role; African-American studies need to remain “predominant given A&T’s history.” Another faculty member makes the point that we should be focusing on cultures, not race (e.g., there are many different African-American cultures).

Objective 6: Arts, Music, Literature, Fine Arts

There were few comments in this area. Of those received, one noted that we should change the statement of the objective to “develop an understanding of the ways music, literature and the fine arts express humanity’s common experiences.” The word “appreciation” just doesn’t work.

Objective 7: Ethics

Again, not much discussion of this objective, overall, across the Town Hall meetings. Gen Ed should include an ethical dimension, but how this would manifest itself in the curriculum is unclear. This could take many forms, e.g. environmental/ecological issues, concern for the plight of the poor, etc. One comment states that this is the weakest of all the objectives.

Objective 8: Healthy Lifestyles

There is some question as to whether this type of objective needs to be included, especially if viewed as traditional PE/Health courses. If implemented, this objective needs to include emotional as well as physical health and the focus should be on developing healthy lifestyles, not simply PE skills courses. How would we demonstrate success in meeting this objective?

Additional Objectives

The Town Hall meetings led to suggestions for additional objectives that complement the original eight that the GECCR-C developed. Support for the following objectives emerged from the Town Hall meetings.

College/Life Skills Development

Included in this area are time-management skills, personal finance skills, study skills, and note-taking. The Gen. Ed. program should emphasize that students need to be responsible for

their own learning. This type of objective could be met through non-credit workshops or courses, but required as part of the Gen. Ed. Program.

Service/Experiential Learning

A few comments noted the need for hands-on learning that puts into practice the concepts developed in the classroom and the need for students to be more directly involved in service to and within the community. This also supports A&T's historical and traditional mission and ties to the local community.

Information Technology Literacy/Ability

A number of people felt that this should be a separate objective, focusing on the use of information technology to "communicate, calculate, and search for information." Some people wanted Gen. Ed. courses to introduce students to the role that technology, in particular information technology, plays in our economy, including global and ethical dimensions of the use of technology.

Interdisciplinary Focus and Teamwork

Some people indicated that the Gen. Ed. objectives should be viewed as part of a more comprehensive interdisciplinary process, suggesting a more integrative approach to the objectives. Alternatively, interdisciplinarity could be achieved by intentionally linking courses from a variety of disciplines across the Gen. Ed. curriculum. In a related set of comments, issues of "teamwork" were raised as a possible Gen. Ed. objective.

Critical Thinking

The issue of critical thinking skills came up a number of times and it was suggested that the first three objectives could be viewed as a part of a broader "critical thinking" objective. Alternatively, this could be a separate objective, or more likely, included as part of the other objectives, especially 1 through 3.

Future Plans

During January and February, 2004 the GECCR-C will use the feedback gained from the town hall meetings to refine and revise the initial draft of the general education learning objectives. The revised draft of the learning objectives will be shared with faculty members in a series of town hall meetings and then submitted to the Faculty Senate for approval. At the same time the GECCR-C will begin drafting expected learning outcomes directly linked to these learning objectives. In turn, the expected learning outcomes will provide guiding principles for faculty developing courses to be submitted for review/inclusion in the general education core curriculum and the basis for determining the success of these courses in meeting general education learning objectives.

Summary of Faculty Feedback on Structure, Process and Governance of the Revised General Education Program

Instructor Quality

General Education instructors should be among the best teachers in the University. There should be ongoing faculty development in pedagogy and assessment. Adjunct faculty will need mentoring and supervision to ensure consistency. Finally, there should be a process for qualifying teachers for Gen Ed.

Credit Structure

It is important to establish the total credit hour question upfront and early on. One option to consider is whether Gen Ed objectives can be met through either major (non-Gen Ed) courses or through non-classroom experiences. The Gen Ed program should allow flexibility in whether course requirements can also be met during the junior and senior years.

Pedagogy

In teaching Math and Science, show connections with practice and with other disciplines. Teachers need to recognize that students have different learning styles. Involve students with scholarly activities as early as possible, preferably in the freshman year. Integrate Gen Ed with invited speakers and other activities on campus. Consider Distance Learning as an option to deal with large classes or off-site classes.

Inter-Disciplinary Approaches

Gen Ed should involve all schools/colleges, not just Arts and Sciences. One way to enhance interdisciplinary content is to require interlocking courses (for example, a writing course requires students to write about artifacts in an Art course or topics in a History course). Faculty will need training for writing-in-the-discipline courses. It is important to note that some course material is inherently single-disciplinary and we should not dilute the rigor of certain math and science course material just to make it interdisciplinary.

Governance

Effort should be made to accomplish the revision of Gen Ed without adding more course requirements or adding more administrative structure. The Gen Ed program should be driven by high standards and high expectations. Use feedback from students to continually improve Gen Ed program. Find out how other universities are funding small class sizes. Until then, offer multiple recitation sections with good TAs.

Assessment

There needs to be a process that ensures that all learning objectives are assessed. Students should understand what they know and what they don't know. There is a need for greater

accountability from Gen Ed teachers (there were reports of teachers frequently canceling classes). A well-defined procedure for achieving learning objectives is also needed (what activities lead to achieving each objective). Further, specific metrics for each objective will need to be specified.

Writing

Some faculty requested a standard writing protocol (APA, MLA, etc). There was interest in a writing-intensive freshman year.

Incoming Abilities of Freshman Students

Develop a comprehensive system to place students in freshman English and Math. If needed, create a bridge semester or year to develop needed skills. Most importantly, communicate A&T's expectations to high schools (workshops for teachers).

Critical Thinking

Develop critical thinking skills over a series of courses, not just one or two courses.

General Education Review Process

Include other stakeholders in Gen Ed review and revision (students, employers, K-12, Advisory Boards, etc).

Specific Course Recommendations

Some specific courses were recommended: History of NCA&T, Land grant philosophy, Ethics. Some faculty questioned the need for required PE courses.

Miscellaneous Comments

- Increase opportunities for non-classroom learning.
- Expose students to hands-on interdisciplinary work.
- Show link between Gen Ed and things that “really matter” in society and the importance of an interdisciplinary approach within Gen Ed (this will convince students that Gen Ed is important, and not just something that has to be “done with” and forgotten.
- Evaluate the Gen Ed program and its administration every 2-3 years.

2. Constraints Affecting General Education Reform

a. Summary of Credit Hour/Accreditation Constraints

In September, 2003, department chairs were asked to determine the maximum number of hours that could be devoted to General Education in each academic program and to note any accreditation issues that might be affected by changes in the general education core curriculum. The following table summarizes the credit hour responses received from the academic units.

Academic Program	Maximum Credit Hours Available for General Education
Accounting	54
Acting	44
Agribusiness, Applied Economics and Agriscience Education	37 to 40
Animal Science	40
Applied Mathematics	51
Bioenvironmental Engineering	43
Broadcast Production	52
Chemical Engineering	19 *
Chemistry	36
Child Development	37
Criminal Justice	61
CUIN/Elementary Education	42
CUIN/Special Education	42
Earth and Environmental Sciences	55
Electronic Media & Journalism	49
Engineering Physics	40
English, BA	56
English, BS	42
Family and Consumer Sciences	37
Fashion Merchandising	39
Fitness/Wellness	41
Food and Nutritional Sciences	39
History Professional	65
History, Secondary Education	37
Human Environment and Family Sciences	37 to 39
Industrial Engineering	50
Journalism & Mass Communication	52
Landscape Architecture	52
Leisure Studies	65
Mass Communication	44
Mathematics	63
Mathematics Education	45
Mechanical Engineering	23 *

Media Management	52
Natural Resources	59 to 64
Nursing	62
Physical Education Teaching	38
Physics Secondary Education	45
Political Science	67
Print Journalism	52
Professional Physics	42
Psychology	77
Public Relations	52
Social Work	69
Sociology	75
Speech	52
Speech Pathology/Audiology	54
Theatre Technology	73
Visual Arts	64
Visual Arts,Art Education	72

* Non-STEM (science, technology, engineering, and math) general education Courses only

NCAT currently requires 32 credit hours of general education coursework. Relative to our peer institutions (see our original study, available at the general education web site) we are on the low end of the distribution in terms of required general education credit hours. From the departmental feedback, it appears that the maximum number of hours available for general education (without affecting degree or accreditation requirements) is in the range of 36-40 hours.

b. Articulation Agreement (UNC-NC Community College) Constraints

During the September 3, 2003 meeting of the GECCR-C, Dr. Elazer Barnette, Dean of the School of Technology, provided an overview of the UNC Transfer Advisory Committee's work and shared information on courses approved for transfer from Community Colleges to UNC system Universities. He pointed committee members to a reference handbook on policies and articulation agreements. An important note is that a student who has completed an Associates Degree from a community college receives admission to a UNC institution is supposed to have completed all General Education requirements for that UNC institution.

3. Planned Activities – Spring, 2004

As indicated earlier in this report, the committee spent the majority of time during the fall, 2003 semester obtaining and summarizing feedback from faculty on general education learning objectives. As a result, tasks 3 through 5 on the original list of activities for fall,

2003 were not completed. These activities are included in the list of activities for spring, 2004, along with additional tasks to be completed. The full list of planned activities for the committee (with timeline) is outlined below.

1. Revise general education learning objectives based on faculty feedback from town hall meetings (January/early February, 2004)
2. Lead campus discussion of revised learning objectives via school/college meetings and university-wide town hall meetings (March, 2004))
3. Develop expected learning outcomes for revised learning objectives – to be used for later course development and assessment (by May, 2004)
4. NCAT Faculty Senate approval of broad general education learning objectives (by May, 2004))
5. Arrange/hold workshops on general education-related topics; open to the university community (March, April, 2004)
6. Develop preliminary general education curriculum models consistent with Faculty-Senate approved learning objectives (by May, 2004)
7. Initiate discussion within GECCR-C related to assessment of learning objectives and assessment of overall program goals and objectives (March, April 2004)
8. Initiate discussion on governance of revised general education program (February through May, 2004)

Resource Request

It is estimated that the GECCR-C will need approximately \$12,600 to host three workshops during Spring 2004. Approximately \$4,200 is estimated for each workshop to cover speaker fees (\$2,500), travel expenses (\$1,500), and refreshments (\$200).