

Assessment of UTC's General Education Program 2007 – 2009

Introduction

Best practices in higher education suggest that we assess and evaluate ourselves as well as our students to constantly improve our programs and processes. In fact, UTC's regional accrediting body, the Commission on Colleges of the Southern Association of Colleges and Schools (SACS) promotes a process of closing the loop – using this assessment data to drive ongoing curricular improvement as a part of the reaccreditation process.

UTC's General Education program underwent a major transformation in 1998. Another impact on the General Education program was seen in 2002 with a THEC mandate that no program could require more than 120 hours (or 128 hours depending on programmatic accreditation).

UTC General Education Committee implemented an assessment of the general education program, courses, student learning outcomes in 2007. The assessment reviewed student scores on standardized tests (taken as seniors), a comparison of standardized test results from freshman and seniors, a review of the general education curriculum, in general and a review of student artifacts from general education courses.

History & Background of General Education at UTC (since 1997)

UTC's General Education program underwent a substantial revision in 1997-1998. That year, faculty adopted the new general education program with the following philosophy, goals and student proficiencies (UTC General Education Committee "Final Recommendations for a Revised General Education Curriculum" [Green Book], 1998).

UTC's Philosophy and Goals of General Education Curriculum

The UTC faculty believe that the general education curriculum can expand students' fundamental knowledge, abilities, and aesthetic sensibilities, leading to a social awareness essential for individual and societal development.

UTC's Proficiencies for Graduates

Graduates of The University of Tennessee at Chattanooga should have the knowledge and ability to:

- Think analytically, logically, creatively, reflectively, and sensitively about the human condition;
- Think analytically, logically, creatively, and reflectively about natural and abstract structures;
- Collect, process, interpret, and use quantitative and qualitative information using up-to-date methods, to define and defend viewpoints, solve problems, and make decisions;
- Communicate effectively, especially in speech and in writing; engage in civil debate; and collaborate on common tasks;
- Incorporate into their world view a comparative, historical, and global perspective on the diversity of the human experience, including the complex factors that shape individuals, societies, civilizations and knowledge.

The general education curriculum outlined in the following general education categories provides a reasoned plan to achieve the intended outcomes. The curriculum is comprised of courses both outside and within students' majors; includes the key disciplines developed by human beings to pursue knowledge of themselves and the universe; and maintains a balance between specific essential courses and sets of courses that provide flexibility for individual interests. The categories, expected outcomes for each category and number of hours approved by the UTC faculty in 1998 are listed in Table 1.

Table 1: 1998 General Education Categories/Outcomes

Category/Sub Category	Number of Required Hours	Expected Student Learning Outcomes
Communication and Information Processing	9 to 15 hours 9 hours in writing 0-3 hours in computer literacy 0-3 hours in oral communication	Students will improve their skills to read with understanding, write, and speak in the English language; to clarify and articulate thought; to treat language as an instrument and model for appreciation, understanding, communication, persuasion, and analysis; and to use up-to-date resources to collect, transfer, process, interpret, and use information.
Rhetoric and Composition I & II	6 hours	Students develop skills essential for effective communication and are sensitized to the structure, beauty, and complexities of Standard American English as they refine their abilities to write logically and clearly. Students develop more advanced writing and oral communication skills, emphasizing the composition of extended and persuasive essays and research papers.
Intensive Writing	3 hours	Students are expected to learn how scholars in their discipline write, examining such aspects as organization, methods of development, paragraph length, sentence style, and vocabulary, proper methods of documentation of sources.
Oral Communication	0-3 hours:	Students will develop and demonstrate oral communication skills.
Computer Literacy	0-3 hours	Students will demonstrate an understanding of computing, the development of the electronic computer, its technology, capabilities, and limitations, including a knowledge of ethical and social issues related to computing, as well as the role and impact of computers in society. Upon completion, students should be able to use a range of useful microcomputer hardware and software applications (word processing, presentation software, Internet).
World Culture	15 hours: 9 hours of cultures and civilizations 6 hours of fine arts and humanities	Students can examine how human beings have come to live and think as we do. Through the study of great books, creative achievements, historical developments, and characteristics of institutions and ways of life, students will cultivate their powers of thought and spirit, and better understand our place in history and our role in society.
Cultures and Civilizations	9 hours: either Option (i) or Option (ii)	Option (i) Two courses in western humanities and one course in non-western cultures and civilizations Western Humanities: An historical approach to the great ideas, events, modes of thinking, and creations of the western world. The first course in this sequence will focus on developments from Antiquity through c. 1600; the second, from c. 1600 to the present. Both courses are designed to deepen historical perspective and offer opportunities to experience the power of literature and wrestle with issues of the human spirit. Non-western Cultures and Civilizations: Study of the development or characteristics of non-western cultures and civilizations, examining western cultures and civilizations only for the purpose of contrast and comparison, and thoroughly relating aspects of a culture to its context. Option (ii) World Civilizations I, II and III: An historical approach to significant or characteristic events, practices, and creations from world cultures and civilizations. All three courses include important aspects of both Western and non-western history and civilization, and integrate the study of the humanities and fine arts. These courses are designed to deepen historical perspective and increase cross-cultural understanding.
Humanities and Fine Arts	6 hours, with at least 3 hours in the fine arts	Humanities courses are designed to acquaint students with historical, literary, philosophical, religious, and political experience and traditions, with special attention to the methods and techniques of the humanities disciplines. Fine arts courses are designed to heighten perception, appreciation, and enjoyment of music, theatre, and the visual arts, and may include studio experience in addition to historical studies.
Behavioral and Social Sciences	6 hours Two courses to be taken in two different disciplines, unless precluded by dept. requirements	Students explore the nature of human beings and how they function as individuals, as citizens, and as members of groups. These courses emphasize the theories, principles, methods, and empirical results of the social and behavioral sciences and assess the impact of scientific research on society.
Natural Sciences	7 or 8 hours Two courses in the natural sciences, at least one including a laboratory component	Students study the systematic ways in which human beings analyze the physical universe, to appreciate the achievements of the human mind in comprehending the universe, and to understand the significant role of the natural sciences in human development. Courses in this category emphasize empirical studies of matter, energy, living systems, natural processes, and related phenomena, and examine science in the context of human culture.
Mathematics and Statistics	6 hours 3 hours of mathematics and 3 hours of statistics	Students develop the ability to use abstract and deductive reasoning, to think logically and creatively about mathematical and statistical problems, and to be able to interpret, develop, and use some mathematical or statistical models of real world and abstract phenomena. Courses in this category emphasize the use of mathematics as a powerful language in many disciplines and its significant role in human development.

In 2002, the Tennessee Higher Education Commission (THEC) approved/updated a statewide policy that “credit requirements for new and existing undergraduate academic programs shall not be substantially more than 120 hours for baccalaureate degrees or 60 hours for associate degrees without justification...” (THEC, A1_0_policy_2002). This recommendation excluded programs with specific accreditation or licensure requirements. This policy recommendation resulted in a review of degree requirements by each of the UTC academic programs. The impact of the THEC policy on UTC’s General Education program was that the computer literacy and oral communication requirements were essentially dropped as campus institutional requirements (unless departments required them as a part of their degree programs). In addition, the World Cultures category was split out into two sections: Cultures & Civilizations (with two different options - Western & Non-western Civilizations) and Humanities and Fine Arts category. A much larger impact on the UTC general education curriculum was made as degree programs incorporated specific course requirements as a part of the general education requirements as a part of their degree programs. Thus, since 2004, UTC general education requirements were revised as reflected in Table 2.

Table 2: General Education Categories/Outcomes as of 2004

Category/Sub Category	Number of Required Hours	Expected Student Learning Outcomes	Degree Programs With Specific Course Requirements for General Education (Note: based on a review of the programs in 2009)
Rhetoric and Composition I & II	6 hours	Students develop skills essential for effective communication and are sensitized to the structure, beauty, and complexities of Standard American English as they refine their abilities to write logically and clearly. Students develop more advanced writing and oral communication skills, emphasizing the composition of extended and persuasive essays and research papers.	
Cultures and Civilizations	9 hours: either Option (i) or Option (ii)	<p>Option (i) Two courses in western humanities and one course in non-western cultures and civilizations Western Humanities: An historical approach to the great ideas, events, modes of thinking, and creations of the western world. The first course in this sequence will focus on developments from Antiquity through c. 1600; the second, from c. 1600 to the present. Both courses are designed to deepen historical perspective and offer opportunities to experience the power of literature and wrestle with issues of the human spirit.</p> <p>Non-western Cultures and Civilizations: Study of the development or characteristics of non-western cultures and civilizations, examining western cultures and civilizations only for the purpose of contrast and comparison, and thoroughly relating aspects of a culture to its context.</p> <p>Option (ii) World Civilizations I, II and III: An historical approach to significant or characteristic events, practices, and creations from world cultures and civilizations. All three courses include important aspects of both Western and non-western history and civilization, and integrate</p>	<ul style="list-style-type: none"> ▪ History [all majors] ▪ Music [all] ▪ Sociology, Anthropology, [BA & BS] ▪ Computer Science [Computer Engineering] ▪ Engineering [all] ▪ Early Childhood [Early Childhood Education] ▪ Middle Grades Education [all] ▪ Secondary Education [English, Social Sciences [all]] ▪ Foreign Languages [all]

		the study of the humanities and fine arts. These courses are designed to deepen historical perspective and increase cross-cultural understanding.	
Humanities and Fine Arts	6 hours, with at least 3 hours in the fine arts	Humanities courses are designed to acquaint students with historical, literary, philosophical, religious, and political experience and traditions, with special attention to the methods and techniques of the humanities disciplines. Fine arts courses are designed to heighten perception, appreciation, and enjoyment of music, theatre, and the visual arts, and may include studio experience in addition to historical studies.	<ul style="list-style-type: none"> ▪ Art [all] ▪ Computer Science [all] ▪ Early Childhood [Early Childhood Education] ▪ Foreign Languages [all] ▪ HHP [Exercise Science, Movement Science, Pre-Athletic Training] ▪ Interior Design ▪ Music [all] ▪ Philosophy & Religion ▪ Political Science [American Studies, International & Comparable Studies] ▪ Secondary Education [English, Social Sciences [all]] ▪ Social Work [all] ▪ Theater [all]
Behavioral and Social Sciences	6 hours: Two courses to be taken in two different disciplines, unless precluded by departmental requirements	Students explore the nature of human beings and how they function as individuals, as citizens, and as members of groups. These courses emphasize the theories, principles, methods, and empirical results of the social and behavioral sciences and assess the impact of scientific research on society.	<ul style="list-style-type: none"> ▪ Accounting ▪ Communication ▪ Computer Science [Information Security & Assurance, Software Systems] ▪ Criminal Justice ▪ Early Childhood Education [all] ▪ Engineering [Engineering Technology Management [all]] ▪ Finance ▪ Foreign Languages [all] ▪ HHP [all] ▪ Humanities: Women's Studies ▪ Management [all] ▪ Marketing [all] ▪ Mathematics [Actuarial Sciences] ▪ Middle Grades Education [all] ▪ Music [Music Education: Vocal & Instrumental] ▪ Nursing [all] ▪ Occupational Therapy [all] ▪ Political Science [all] ▪ Pre-Physical Therapy [all] ▪ Secondary Education [all] ▪ Social Work [all] ▪ Sociology, Anthropology & Geography [all]
Natural Sciences	7 or 8 hours Two courses in the natural sciences, at least one including a laboratory component	Students study the systematic ways in which human beings analyze the physical universe, to appreciate the achievements of the human mind in comprehending the universe, and to understand the significant role of the natural sciences in human development. Courses in this category emphasize empirical studies of matter, energy, living systems, natural processes, and related phenomena, and examine science in the context of human culture.	<ul style="list-style-type: none"> ▪ Chemistry [all] ▪ Computer Science [all] ▪ Engineering [all] ▪ Exceptional Learning K-12 ▪ Geology [all] ▪ HHP [Exercise Science, Movement Education, Pre-Athletic Training, Nutrition [Dietetics, Food & Nutrition]] ▪ Interior Design ▪ Mathematics [BA] ▪ Middle Grades Education [Mathematics, Natural Sciences, Social Sciences] ▪ Nursing [all] ▪ Occupational Therapy [all] ▪ Physics ▪ Pre-Physical Therapy [all] ▪ Secondary Education [Mathematics, Natural Sciences [all], Social Sciences: Geography] ▪ Social Work
Mathematics and Statistics	6 hours: 3 hours of mathematics and 3 hours of statistics	Students develop the ability to use abstract and deductive reasoning, to think logically and creatively about mathematical and statistical problems, and to be able to interpret, develop, and use some mathematical or statistical models of	<p>Math:</p> <ul style="list-style-type: none"> ▪ Accounting ▪ Chemistry [all] ▪ Computer Science [all] ▪ Early Childhood Education [Early Childhood Education] ▪ Economics [BS]

		<p>real world and abstract phenomena. Courses in this category emphasize the use of mathematics as a powerful language in many disciplines and its significant role in human development.</p>	<ul style="list-style-type: none"> ▪ Engineering [all] ▪ Exceptional Learning K-12 ▪ Finance ▪ Geology [all] ▪ HHP [Movement Science, Pre-Athletic Training, Nutrition [Dietetics, Food & Nutrition] Management [all] ▪ Marketing [all] ▪ Mathematics [BA] ▪ Middle Grades Education [all] ▪ Occupational Therapy [all] ▪ Physics ▪ Pre-Physical Therapy [all] ▪ Secondary Education [Mathematics, Natural Sciences, Chemistry, Earth & Space Sciences, Physics] <p>Statistics:</p> <ul style="list-style-type: none"> ▪ Accounting [all] ▪ Anthropology/Sociology ▪ Art [not required] ▪ Biology [all] ▪ Chemistry [all] ▪ Computer Science [all] ▪ Economics [all] ▪ Engineering [all] ▪ Environmental Science [all] ▪ Finance [all] ▪ HHP [Exercise Science, Health & Exercise Science Pedagogy, Movement Education, Sports & Leisure Service Administration, Pre-Athletic Training] ▪ Legal Assistant Studies ▪ Management [all] ▪ Marketing [all] ▪ Mathematics [BA] ▪ Middle Grades Education [Mathematics] ▪ Psychology [all] ▪ Secondary Education [Mathematics]
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General Education Assessment Plan Overview

The General Education Committee at UTC continues to grapple with the complex question of how best to assess the general education program. In 2002, the committee implemented a recertification process – the process by which each approved general education course is recertified as a general education course within a certain category. Each course is recertified every five years, evaluated against the overall UTC general education objectives and the specific guidelines and requirements for the particular content area and category of study. (The process and timeline for general education course certification is outlined online at: <http://www.utc.edu/Administration/GeneralEducation/Recertification.php>)

During the 2007-08 academic year, the general education committee made a series of recommendations to implement a more comprehensive assessment of the overall program. With minor modifications, these recommendations were adopted by the Provost’s Office during the Spring of 2008, and in September 2008 the Faculty Senate sanctioned the implementation of the assessment plan with the idea that while we would be evaluating the general education program, we would also gather information on which to base recommendations for a sustainable assessment plan as well. (See Appendix A for an outline for the proposed/approved general education assessment plan.)

The General Education Committee has worked from the premise that the foundation for all aspects of assessment must be the description of general education goals, guidelines, and requirements approved by the full faculty. Thus, in formulating competency statements for the program overall and for the component category areas, the committee strove to achieve maximal fidelity to the objectives expressed in the “Green Book.”

While taking due measure of what the faculty are attempting to teach in the courses that have been certified for the general education curriculum, the committee has also sought to develop ways to assess student learning in these courses. Since available standardized tests may not accurately measure our intended campus learning outcomes, the committee opted to proceed with course-embedded assessment activities as a component of the assessment process. Admittedly, in the first year, course embedded assessment posed a few practical hurdles. But in the long run, it may provide the greatest amount of information with the least amount of inconvenience to individual faculty members. Data from the assessment activities are to be shared with the General Education Committee and the Faculty Senate, who also take the lead in deciding how to interpret and act on that information. Finally, the faculty continues to exercise its prerogatives by being solely responsible for the devising/revising of student learning outcomes/competency statements and the rubrics used to evaluate them through the Faculty Senate General Education Committee.

Based on a review of the general education program three questions were developed that drove this curricular program assessment. The intent of these questions was to capture both process and outcomes data of the general education program. Specifically, the general education assessment seeks to address the following questions.

1. Are UTC students achieving the general education outcomes upon graduation?
2. What's the best way to evaluate and assess both the general education program, student learning outcomes and students' progress along their individual curricula?

The student learning objectives were based on the overall general education competencies proposed in the Green Book, developed and approved by the UTC faculty in 1998. The general education committee has devoted considerable time and effort to articulate specific outcomes statements that are consonant with the goals/principles of the current general education program. The overarching objective is that the general education program expands the students' fundamental knowledge, abilities, and aesthetic sensibilities, leading to a social awareness essential for individual and societal development. The general education program will be measured against sub-outcomes to ensure that the outcome criteria are met. Each outcome is quantifiable, specific, and directly related to the purposes of the general education program. The seven outcomes, based on the overall general education competencies, are as follows.

Upon graduation, UTC students can:

- communicate effectively in both speech and in writing,
- reason and think clearly,
- employ qualitative and quantitative information to define and defend viewpoints, solve problems, and make decisions,
- develop a comparative, historical, and global perspective on the diversity of human experience,
- recognize important issues confronting human society and the human condition,
- understand major scientific and technological influences on society, and
- recognize the contributions of collaborative and multidisciplinary approaches to intellectual investigation and problem solving.

Data were gathered from:

- Collegiate Assessment of Academic Proficiency (ACT CAAP)
- Measure of Academic Proficiency and Progress (ETS MAPP)
- Portfolio of student work gathered from a random selection of general education classes offered during the FA 08 and SP 09 courses.
- Data from the NSSE (National Survey of Student Engagement) and FSSE (Faculty Survey of Student Engagement) were not utilized for this assessment as they provided no data pertinent to the goal of the assessment.

Collegiate Assessment of Academic Proficiency (ACT CAAP)

The ACT CAAP test compares UTC students' achievement levels with national user norms. In addition, UTC used test levels to compare results of native UTC and transfer students. The test purports to assess reading, general writing skills, writing essays, mathematics, critical thinking and science reasoning skills. The reported percentiles indicate the percentage of UTC seniors at or below the national mean for ACT CAAP tested college. (ACT, <http://www.act.org/caap/index.html>). The CAAP test was administered on campus to a random selection of UTC seniors (those with over 90 hours of coursework) in 2006, 2007, and 2008.

Measure of Academic Proficiency and Progress (ETS MAPP)

The ETS MAPP tests "proficiency in critical thinking, reading, writing and mathematics in the context of humanities, social sciences and natural sciences, and academic skills developed, versus subject knowledge taught, in general education courses" (ETS, <http://www.ets.org/portal/site/ets/menuitem.1488512ecfd5b8849a77b13bc3921509/?vgnextoid=8370b0f0c2c55110VgnVCM10000022f95190RCRD&vgnnextchannel=9dd546f1674f4010VgnVCM10000022f95190RCRD>).

A selection of entering freshman and a sample of upper level students (those in 400-level courses credit hours) took the ETS MAPP standardized test in 2008. Results from this test from the two sample populations provide measures of student performance on the general education competencies of critical thinking, reading, writing and mathematics in the context of humanities, social sciences and natural sciences, and academic skills developed.

General Education Faculty Review Teams/Rubrics for General Education Categories

A central component of the program for assessing general education at UTC is the evaluation of student work completed during the general education courses collected into an "institutional portfolio." Faculty teaching general education courses were asked to select and submit one or more assignment(s) that best reflected student learning of the general education competencies. These student works were then assessed by UTC faculty using rubrics designed for each category of study.

The General Education Committee designed and shared with the campus community working drafts of the evaluation rubrics (Appendix B) for each of the general education category areas. In developing the evaluation rubrics, the General Education Committee strove to adopt as consistent an approach as possible to evaluate each of the six general education categories. For each core competency area, the submissions were scored as "exemplary," "satisfactory," or "unacceptable." Rubrics for each category also include explanatory comments and material drawn specifically from the competency statements and/or the category objectives approved by the faculty in 1998 (as listed in the "Green Book").

Guidelines and rubrics for each category are accessible online at

<http://www.utc.edu/Administration/GeneralEducation/Assessment/GERubrics.php>

A representative number of course sections from each category in the general education curriculum were selected randomly to contribute student work to the portfolio. Once faculty selected one or more appropriate assignment, they were asked to submit work from all of the students in the selected course section for assessment by the General Education Faculty Review teams.

The following courses were selected to submit student work for assessment and scoring.

- Rhetoric & Composition: English 122 (Rhetoric & Composition II) (all sections submitted student portfolio work and a random selection of student work was made from all of the sections)
- Cultures & Civilizations: English 113 (Western Humanities I); Political Science 104 (Politics, Culture & Society); History 104 (World Civilizations II)
- Humanities & Fine Arts: English 219 (African-American Literature); Art 215 (Western Art: Renaissance to Present); Music 111 (Introduction to Music) [Note: Music 111 did not submit any student work for review.]

- Behavioral & Social Sciences: Economics 102 (Principles of Economy: Microeconomics); Political Science 101 (American Government); Sociology 215 (Sociology of the Family)
- Natural Sciences: Biology 210 (Microbiology & Health); Physics 103 (General Physics Mechanics and Heat); Environmental Sciences 110 (Conservation of Biodiversity)
- Mathematics/Statistics: Mathematics 123 (Math in Our Modern World); Mathematics 151 (Calculus I); Business Management 211 (Statistical Methods for Business)

Faculty reviewers reviewed and assessed student work from the selection of approved general education courses from each category of general education. The reviewers evaluated the body student work for each category using the evaluation rubric based on the specific general education competencies. Faculty reviewers were trained on how to use the rubric and also used several student products to do an inter-rater reliability test – to ensure that faculty raters were consistent in their judgments using the rubrics/

Overall Results

Based on the institutional data from the two standardized tests, on the whole, UTC students generally do achieve the basic general education outcomes when compared to national norms. (See Appendix C). Upper level students have made considerable gains when compared to freshman. Transfer students actually score significantly higher on the tests than do native UTC students. Using standardized test results were difficult as the outcomes for UTC students may not match the outcomes and levels used for the MAAP and CAPP tests.

Based on the student portfolio reviews, students are making generally making progress towards the general education outcomes within the courses approved for general education. There are still many questions about how that progress gets picked up within majors and disciplinary course requirements (See Appendix X).

Faculty reviews of the student work resulted in a number of issues. One issue was that the rubrics used were difficult to interpret for some of the assignments submitted. In addition, there are many concerns related to the use of categorical rubrics vs. generic outcomes rubrics. Using assessment rubrics based within the disciplines/categories, may eventually result in curricular drift from the original general education outcomes. Another issue the portfolio reviewers pointed out was that while we were assessing student work produced as a part of the general education courses, student work should also be assessed at the institutional level within the majors and programs. The reviewers do not support the notion that General Education Committee be charged with oversight of this assessment at the programmatic level, but they encourage the committee to consider asking programs to interpret and assess general education outcomes at the program level and the institutional level.

Recommendations

General Education Outcomes Review

Task the General Education Committee to review and possibly revise to better articulate the general/overall student outcomes upon graduation. Determine and articulate the role that the foundational general education courses play in helping students begin the journey towards attaining the overall general education outcomes. Distinguish where individual academic programs pick up those outcomes and how they should include those as a part of the overall major requirements for students as well as how they assess those outcomes within the major.

Appoint a “liaison” for each general education category to the General Education Committee. These liaisons would serve as faculty leaders to coordinate the outcomes for each general education category and to coordinate and plan and implement the assessment of those outcomes for that category of study for the general education curriculum. Place the burden of assessment for knowledge and skills within that category on the faculty teaching within the category.

Revise the assessment rubrics for student artifacts to assess intended knowledge, skills and abilities across the general education categories vs. just within categories.

UTC must make it more apparent which requirements are requirements for the major (and/or pre-major requirements) and which are required for general education/core curriculum. Task the majors, programs, departments and disciplines to articulate “pre-major” requirements that allow students to select from any of the general education approved courses. If specific courses are required for a major, it should be clear that these are major requirements and not general education requirements. If necessary to stay within the 120/128 hours, programs need to complete curricular revisions to allow students to complete pre-major and major requirements within 79 hours (while still allowing for electives, minor, etc.).

Task the General Education Committee to devise a way in which students understand better the role of general education and the value that general education plays in their overall college plan and within their major course of study. St present, general education courses are seen as hoops to jump through and barriers to graduation. Perhaps consider that the requirements should be seen as a way to gain a broad knowledge of the world and skills that are used across all majors and to provide foundation knowledge and skills that all UTC students have in common.

The General Education Committee should consider restricting general education courses to the 100(0)/200(0) level. While students may not be required to complete their general education within the first 60 hours, the courses should be appropriately leveled to provide foundational knowledge and skills.

Limit the number of general education courses that have pre-requisites that are not approved for general education credit.

Work with the Admissions Office to clarify the role of general education in admissions and recruitment information, etc.

Create and maintain a better link/communicate between general education and curriculum committees to ensure that course changes get communicated.

Distinguish between the levels of outcomes that come from the completion of general education courses vs. the expectations to be reached by graduation.

Recommendations for Assessment of General Education

General education outcomes should be assessed as a part of the student learning outcomes for each discipline/major and as a student graduates from UTC. This process is not to assess the general education

curriculum, but should assess the institutional general education outcomes for all students across disciplines and majors.

Use the general education category teams to assess intermediate gains within the general education curriculum through student portfolio review. These teams should also consider identifying the intermediate outcomes for students that would result upon completion of the general education course/curriculum and designing portfolio assessment rubrics that address institutional general education outcomes.

Continue to test seniors using national standardized tests. Task the General Education Committee to work with Institutional Research on the selection of the test that best matches UTC's general education outcomes.

Appendix A

UTC General Education Assessment Plan Overview

The plan to evaluate UTC's general education program is multi-faceted and attempts to pull from multiple sources to validate and triangulate the results.

We are using a four-pronged approach that we hope will give us data about whether our certified general education courses meet the needs for the overall general education competencies, whether the student learning from our general education program meets the overall competencies set forth by the general education program, and if UTC's general education program makes a difference in our student learning process and outcomes. As an additional part of this first year of the assessment, initial steps will be to also evaluate our general education assessment plan.

We will use the following information and data to assess our general education program.

- ACT CAAP (Collegiate Assessment of Academic Proficiency) test data. Used to compare results from students who have taken our general education program with students who have transferred general education courses in to UTC. These data should be able to tell us if accepting transfer credit for our general education program is meeting our competencies for the general education program.
- A selection of entering freshman and a sample of upper level students will take ETS MAPP (Measure of Academic Proficiency and Progress) standardized test. Results from this test from the two sample populations will provide measures of student performance on the general education competencies of critical thinking, reading, mathematics, and writing. In addition, the test includes content scores for humanities, social sciences, and natural sciences. Scores from this test should allow us to identify any differences between UTC and transfer students and will be collected in a way that allows comparison between freshmen and upper-level students on each of the measures.
- Data from the National Survey of Student Engagement (NSSE) given in 2004, 2005, and 2006 will be used to assess the extent to which both freshman and seniors are engaged in the learning process.
- Faculty reviewers will review and evaluate student work from a selection of approved general education courses from each category of general education. The reviewers will evaluate the body student work for each category using a consistent evaluation rubric based on the general education competencies. Faculty reviewers will be trained on how to use the rubric and will also be used to validate the rubric. In addition, inter-rater reliability will be computed to determine if all the reviewers are consistent in their judgment.

Faculty teaching the course will have the option of selecting the assignment(s) to be collected and submitted. Student work submitted should represent 2-3 best assignments relating to the general education competencies. Once an assignment is selected, faculty should submit work from all of the students in the section for that assignment. All student and faculty names will be removed from the work submitted.

For more information about the assessment, contact Tony Steinhoff (Anthony-Steinhoff@utc.edu), chair of the General Education Committee or Karen Adsit (Karen-Adsit@utc.edu).

EVALUATION RUBRIC FOR UTC GENERAL EDUCATION ASSESSMENT

Category: Rhetoric and composition					
Core Competency	5-4 Exemplary	3-2 Satisfactory	1-0 Unacceptable	Weight	Score
Recognize that writing always takes place within specific rhetorical situations. (1,2,3)	Reflects especially thoughtful attention to the given rhetorical situation, taking into consideration such elements as the specific audience, temporal setting, and form of “publication.”	Demonstrates awareness of certain aspects of rhetorical situation, but underestimates or neglects other key dimensions of the rhetorical situation.	Shows little to no consideration of the broader rhetorical situation, whether in the choice of topic, the approach to the argument or message, or in the framing of the discussion.	15	
Compose appropriate texts for a variety of purposes and audiences. (1,2,3,7)	Has an identifiable, focused, and controlled purpose. Demonstrates skill in selecting and employing a rhetorical strategy as well as adjusting the tone and diction to text’s purpose and audience.	Has a sufficiently narrow purpose that is relevant to the specific writing task. Shows an ability to select appropriate rhetorical strategies and adjust tone and diction to meet the text’s purpose and audience, but the execution is not consistently successful.	Fails to convey a specific or appropriately limited purpose. Demonstrates little awareness of the audience or the form’s requirements, as evidenced by the rhetorical appeals, diction or tone.	25	
Organization, reasoning and support.(1,2,3,7)	Organization enhances the purpose. Development of ideas is substantial, relies on a variety of evidence and concrete/metaphorical examples, and is aided by the use of effective transitions. Details provided are germane and convincingly interpreted.	Organization supports the purpose. Sequence of ideas good, but some problems with organization and flow of information evident. Offers support and appropriate details/examples, but some are too general and insufficiently interpreted.	Has an organization or plan inappropriate to its purpose. Offers simplistic, underdeveloped, or cryptic support for ideas. Contains inappropriate or off-topic generalizations, faulty assumptions, and/or errors of fact.	25	
Research and use of sources. (1,2, 3,7)	Uses appropriate sources to support, extend, and inform, but not substitute for the writer’s argumentative stance. Synthesizes material from a variety of well-chosen sources. Doesn’t overuse quotes.	Uses relevant sources to support, extend and inform the argumentative stance, but the variety of sources may be limited and there are problems integrating source material. Quotations and paraphrases may also be overly long.	Has an insufficient range of sources and/or neglects important sources. Overuses quotations and paraphrases, often as a substitute for the writer’s own ideas. Uses sources either without acknowledgment or without indicating their specific purpose.	25	
Use appropriate conventions of presentation for audience, employing standard documentation styles and Standard American English. (1,2, 3,7)	Sentence variety and structure reinforce the purpose; tone is consistent and suitable; diction is precise and appropriate. Contains, at most, only minor errors in mechanics and usage and these do not interfere with meaning. Confidently employs relevant documentation styles.	Sentence structure and tone are generally appropriate for audience and purpose. Diction is suitable, but with some poor choices. Exhibits weaknesses in mechanics and usage, but these do not seriously detract from the meaning. Generally implements relevant documentation standards.	Writing is marred by severe mechanical and usage errors. Basic formatting rules and stylistic conventions largely ignored. Sentence structure, tone, and diction are casual and/or haphazard.	10	
Total:					

EVALUATION RUBRIC FOR UTC GENERAL EDUCATION ASSESSMENT

Category: Behavioral and Social Sciences					
Core Competency	5-4 Exemplary	3-2 Satisfactory	1-0 Unacceptable	NA	Score
Demonstrate disciplinary knowledge of human/social activity and behavior.	Analyzes and evaluates how humans act as individuals and as members of groups and societies. Is capable of describing major concepts and disciplinary theories and applying them to investigate human and social phenomena.	Describes basic characteristics of human and social behavior. Is able to differentiate between actions of individual and groups. Familiar with major disciplinary concepts and theories, even if not explicitly named.	Displays little to no awareness of the specific disciplinary insights or approaches to the examination of human and social activity and behavior. Has difficulties differentiating between actions of individuals and groups.		
Demonstrate knowledge of behavioral/social science research methods.	Clearly understands and appropriately applies the methods and models used to examine human behavior and social life. Evaluates the suitability of particular approaches to examining specific human/social phenomena. Shows awareness for the limitations of disciplinary models.	Generally understands the principles and methods underlying behavioral and social science research, but has difficulty in applying them to the study of specific problems.	Demonstrates little to no awareness of the principles underlying behavioral/social science research. Is largely unable to apply methods to the study of specific problems.		
Demonstrate knowledge of the impact of behavioral/social science research.	Analyzes and evaluates major research findings from a behavioral/social science discipline. Interprets persuasively, using specific examples, the implications of these findings for both the discipline and the general public.	Describes major research findings from a behavioral or social science discipline, but without grasping many of the finer points. Identifies some of the implications of these findings, but mostly at a general level. Can discuss either ramifications for the discipline or the general public, but not both.	Has, at best, a limited awareness of major research findings in the social and behavioral sciences. Discussion of their broader implications is weak to non-existent.		
Demonstrate knowledge of the contemporary relevance of the social/behavioral sciences.	Appropriately selects and applies behavioral/social science models and theories to examine contemporary issues. Analyzes using specific examples how the complexities of the contemporary world are affecting human behavior and social life.	Identifies relevant behavioral/social scientific theories and models for discussing contemporary issues, but has difficulties in applying them. Is aware of how contemporary conditions affect human behavior and social life, but discussion remains general.	Discusses contemporary issues from the perspective of a specific behavioral/social science only with great difficulty, when at all. Has little to no understanding of how the contemporary world affects individuals and societies.		
Total:					

EVALUATION RUBRIC FOR UTC GENERAL EDUCATION ASSESSMENT

Category: Humanities and Fine Arts					
Core Competency	5-4 Exemplary	3-2 Satisfactory	1-0 Unacceptable	NA	Score
Demonstrate knowledge of significant developments and achievements in the humanities or fine arts (1, 2, 3, 4, 5, 7).	Analyzes and evaluates significant developments and achievements in a humanities or fine arts discipline with the aid of specific examples.	Describes or identifies significant developments and achievements in a humanities or fine arts discipline.	Displays little to no awareness of significant developments or achievements in a specific humanities or fine arts discipline.		
Demonstrate knowledge of the historical context of significant developments and achievements in the humanities or fine arts (1, 2, 3, 4, 5, 7).	Analyzes and evaluates the historical context of significant developments and achievements in the humanities or fine arts.	Describes the historical context of significant developments and achievements, but mainly on a general level.	Displays little to no awareness of the historical context of significant developments and achievements.		
Demonstrate knowledge of the relationship between creative expression and human experience and its evolution over time (1, 2, 3, 4, 5, 7).	Analyzes and evaluates the relationship between creative expression and human experience. Uses specific examples to explain how this relationship (as indicated by major ideas, concepts, forms, practices) has evolved over time.	Describes the relationship between creative expression and human experience. Discusses how this relationship has evolved over time, but the submission is generally lacking in specific examples and detail.	Displays little to no awareness of the relationship between creative expression and human experience, nor of how this relationship has evolved over time within the context of a specific humanistic/fine arts discipline.		
Demonstrate knowledge of value and belief systems and their ramifications for humanistic inquiry and expression (1, 2, 3, 4, 5, 7).	Compares, contrasts, or evaluates major value and/or belief systems and explains their role in shaping humanistic inquiry and/or creative expression.	Describes major value and/or belief systems and discusses, albeit in a fairly general manner, their role in shaping humanistic inquiry and/or creative expression	Displays little to no awareness of major value and/or belief systems and how they shape humanistic inquiry and/or creative expression.		
Demonstrate knowledge of disciplinary methods in the humanities or fine arts (1, 2, 3, 4, 5, 7).	Analyzes and explains the meaning of significant events, developments, and/or creative works using forms of reasoning, analysis and exposition used by a specific humanities or fine arts discipline.	Describes the meaning of significant events, developments, and/or creative works in ways that show a general familiarity with forms of reasoning, analysis and exposition used by a specific humanities or fine arts discipline.	Discusses significant events, developments, and/or creative works using forms of reasoning, analysis and exposition used by a specific humanities or fine arts discipline but only with great difficulty, when at all.		
Total:					

EVALUATION RUBRIC FOR UTC GENERAL EDUCATION ASSESSMENT

Category: Cultures and Civilizations (Western Humanities)				
Core Competency	5-4 Exemplary	3-2 Satisfactory	1-0 Unacceptable	Score
Demonstrate knowledge of great ideas, creative achievements, and modes of thinking in the western world.	Analyzes and evaluates great ideas, creative achievements, and modes of thinking in the western world.	Identifies and describes great ideas, creative achievements, and modes of thinking in the western world.	Displays little to no awareness of the great ideas, creative achievements and modes of thinking in the western world.	
Demonstrate knowledge of the historical context of great works in the western artistic, literary, musical, philosophical, and religious traditions.	Evaluates and explains the relationship between great creative works in the western tradition western civilization and their historical “contexts.”	Identifies and describes the historical context of great works in the western tradition.	Displays little to no awareness of the historical context of great works in the western tradition.	
Demonstrate knowledge of the western tradition’s contributions to contemporary culture and society.	Analyzes and evaluates the western tradition’s contributions to the shaping of contemporary culture and society.	Identifies and describes how the western tradition has helped shape contemporary culture and society.	Displays little to no awareness of how the western tradition has helped shape contemporary culture and society.	
Total:				

EVALUATION RUBRIC FOR UTC GENERAL EDUCATION ASSESSMENT

Category: Cultures and Civilizations (World Civilizations)					
Core Competency	5-4 Exemplary	3-2 Satisfactory	1-0 Unacceptable	NA	Score
Demonstrate knowledge of major developments in the histories of the world's civilizations and cultures.	Analyzes and evaluates major social, religious, political, economic, scientific/technological, and aesthetic developments in the world's civilizations that were significant during the period covered by the course.	Identifies and describes major social, religious, political, economic, scientific/technological, and aesthetic developments in the world's civilizations that were significant during the period covered by the course.	Displays little to no awareness of major social, religious, political, economic, scientific/technological, and aesthetic developments of the significant world civilizations during the period covered by the course.		
Demonstrate knowledge of major world historical developments that were cross-cultural and/or global in nature.	Analyzes and evaluates major social, religious, political, economic, scientific, and aesthetic developments in the world's history that were cross-cultural and/or global in nature.	Identifies and describes major social, religious, political, economic, scientific, and aesthetic developments in the world's history that were cross-cultural and/or global in nature.	Displays little to no awareness of developments in the world's history that were cross-cultural and/or global in nature.		
Demonstrate a knowledge of how world civilizations responded to similar ideas, inventions, and institutions.	Compares and contrasts how different civilizations have responded to similar ideas, invention, and institutions and explains the consequences of these responses.	Identifies and describes the different ways in which civilizations have responded to similar ideas, inventions, and institutions, but provides only a general discussion of the consequences of such responses.	Displays little to no awareness of how different civilizations have responded to similar ideas, inventions, or institutions, or the consequences ensuing from their choices.		
Demonstrate an ability to think historically.	Incorporates a clear awareness of such factors as change over time, contingency, and cause-and-effect relationships in the analysis and evaluation of major world historical developments and events	Describes major world historical developments and events with a general understanding of the importance of such factors as change over time, contingency, and/or cause-and-effect relationships.	Displays little to no grasp for how such factors as change over time, contingency, and cause-and-effect relationships shape the understanding of major world historical developments and events.		
Total:					

EVALUATION RUBRIC FOR UTC GENERAL EDUCATION ASSESSMENT

Category: Cultures and Civilizations (Non-Western Civilizations)					
Core Competency	5-4 Exemplary	3-2 Satisfactory	1-0 Unacceptable	NA	Score
Demonstrate knowledge of non-western civilizations.	Analyzes and evaluates the major characteristics and achievements of at least one non-western civilization.	Describes major characteristics and achievements of at least one non-western culture or civilization.	Shows little or no awareness of the characteristics and achievements of a non-Western culture or civilization.		
Demonstrate knowledge of historical context.	Explains and evaluates the historical context of the major characteristics and achievements of non-western cultures or civilizations.	Describes the historical context of the major characteristics and achievements of non-western cultures or civilizations.	Displays little or no awareness of the historical context of the major characteristics and achievements of a non-western culture or civilization.		
Demonstrate knowledge of humanistic foundations of non-western values.	Analyzes and evaluates how the histories, philosophies, and/or religions of non-western cultures have shaped the development of their political, social, economic, and/or aesthetic values.	Describes how the histories, philosophies, and/or religions of non-western cultures have shaped the development of their political, social, economic, and/or aesthetic values.	Displays little or no awareness of how the histories, philosophies, and/or religions of non-western cultures have shaped the development of their political, social, economic, and/or aesthetic values.		
Demonstrate knowledge of similarities in and differences between non-western and western cultures and civilizations.	Analyzes and evaluates points of similarity and difference between non-western and western world views, modes of thought and/or forms of social and cultural practices.	Is aware of similarities in and differences between non-western and western world views, modes of thought and/or forms of social and cultural practices.	Displays little or no awareness of similarities in and differences between non-western and western world views, modes of thought and/or forms of social and cultural practices.		
Total:					

EVALUATION RUBRIC FOR UTC GENERAL EDUCATION ASSESSMENT

Category: Natural Sciences					
Core Competency	5-4 Exemplary	3-2 Satisfactory	1-0 Unacceptable	NA	Score
Demonstrate disciplinary knowledge in the natural and physical sciences.	Analyzes and evaluates how scientists employ the scientific method to develop theories that explore natural phenomena. Can both describe major theories and apply these concepts to scientific queries.	Describes the basics of the scientific method and the development of scientific theories to explore natural phenomena. Familiar with major scientific concepts and theories, even if not explicitly named.	Displays little to no awareness of specific scientific theories or the process of the scientific method.		
Demonstrate knowledge of the historical context of scientific achievement.	Appropriately evaluates and explains the historical context and societal impact of humankind's achievements in comprehending the natural/physical world and universe.	Identifies relevant historical and scientific milestones for discussing humankind's scientific achievements, but may have difficulty in evaluating the impact and continuity of scientific growth.	Has difficulty identifying relevant milestones and little knowledge of how humankind's achievements have contributed to understanding the natural/physical world and the universe		
Demonstrate knowledge of the role of creativity and logical reasoning in scientific discovery.	Clearly discusses how creativity and logical reasoning have influenced the development of scientific knowledge and understands how they play a role in scientific problem solving. Is aware that scientific discovery is based on new/novel extensions/modifications of currently accepted scientific models.	Has a basic understanding of how creativity and logical reasoning have advanced the development of scientific knowledge and discovery or how they play a part in scientific problem solving.	Has little to no understanding of how creative and/or logical reasoning have influenced the development of scientific knowledge.		
Demonstrate knowledge of the strengths and limitations of empirical approaches to understanding and influencing the natural world.	Analyzes and discusses the strengths and limitations of empirical approaches to understanding and influencing the natural world, using specific examples.	Understands that there are a variety of ways to understand and influence the natural world, each with its own limitations, but is largely incapable of evaluating critically the advantages and disadvantages of alternative approaches.	Has difficulty in understanding the process of empirical evaluation. Is incapable of identifying strengths and limitations of empirical approaches when given specific examples.		
Demonstrate knowledge of the impact of scientific and technological development on human society.	Appropriately evaluates and explains the impact of scientific and technological development on human society	Identifies the impact of scientific and technological developments, but has difficulties assessing their societal impact.	Has, at best, a limited awareness of major scientific and technological advances and their impact on society.		
Total:					

EVALUATION RUBRIC FOR UTC GENERAL EDUCATION ASSESSMENT

Category: Math and Statistics					
Core Competency	5-4 Exemplary	3-2 Satisfactory	1-0 Unacceptable	NA	Score
Demonstrates knowledge of quantitative and/or statistical concepts and methods (1, 2, 3, 6, 7).	Explains and applies competently basic quantitative and/or statistical concepts. Is aware of the historical, logical, or intuitive aspects of the development of significant mathematical or statistical concepts.	Is familiar with basic quantitative and/or statistical concepts and can apply them, but not always correctly or consistently. Has difficulty appreciating the historical, logical, or intuitive aspects of the development of significant mathematical or statistical concepts.	Displays little awareness of basic quantitative and/or statistical concepts and has great difficulty applying them successfully or understanding the context of their development.		
Demonstrates knowledge of quantitative and/or statistical problem solving strategies (1, 2, 3, 6, 7).	Poses relevant questions, identifies and analyzes critical information, and/or tests hypotheses and conclusions in the course of evaluating quantitative and/or statistical problems. Approach to problem solving reflects solid mathematical/statistical reasoning skills and logical rigor.	Has a basic understanding of and ability to evaluate quantitative and/or statistical problems by employing such strategies as posing questions, identifying/analyzing critical information, and/or hypothesis and conclusion testing. Approach to problem solving suggests competent if also somewhat unsophisticated reasoning skills and logic.	Evaluates quantitative and/or statistical problems only with great difficulty. Approach to problem solving reveals not only serious shortcomings in reasoning skills and logic, but also fundamental problems in developing effective strategies to explore quantitative and/or statistical questions.		
Demonstrates knowledge of mathematical and/or statistical models (1, 2, 3, 5, 6, 7).	Develops and applies correctly mathematical and/or statistical models to interpret real world and abstract phenomena.	Identifies relevant quantitative and/or statistical models for interpreting real world and/or abstract phenomena, but has difficulty both in constructing his/her own models and/or applying them convincingly and convincingly.	Has little to no understanding for how to interpret real world or abstract phenomena using mathematical or statistical models, or for how to construct such models.		
Demonstrates an ability to communicate mathematical and/or statistical knowledge using appropriate notation and vocabulary (1, 2, 3, 6, 7).	Evaluates and explains mathematical and/or statistical knowledge (e.g., concepts, ideas, and conclusions) using appropriate notation (e.g., symbols, charts, graphs) and vocabulary clearly and without major errors.	Describes mathematical and/or statistical knowledge using appropriate notation and vocabulary, but with occasional inaccuracies or problems with clarity.	Displays little ability for competently describing mathematical and/or statistical knowledge using appropriate notation or vocabulary.		
Demonstrates knowledge of the strengths and limitations of employing mathematical and/or statistical methods in addressing human problems (1, 2, 3, 5, 6, 7).	Evaluates and discusses the strengths and limitations of employing mathematical and/or statistical methods in addressing human problems.	Identifies the value in using mathematical and/or statistical approaches to address human problems, but has difficulty evaluating critically the advantages and disadvantages of such approaches.	Has little to no understanding for either the strengths or limitations of mathematical and/or statistical approaches to addressing human problems.		
Total:					

Appendix C: Results from Standardized Tests

Collegiate Assessment of Academic Proficiency (ACT CAAP) Results

UTC Seniors: 2005-06, 2006-07, 2007-08

Writing Skills <ul style="list-style-type: none"> • Punctuation • Grammar • Sentence Structure • Strategy • Organization • Style 	UTC students scored better than 56% of other seniors that take the test nationally in the area of writing skills.
Mathematics Skills <ul style="list-style-type: none"> • Prealgebra • Elementary Algebra • Intermediate Algebra • Coordinate Geometry • College Algebra • Trigonometry 	In area of math, UTC students scored better than 67% of other seniors that take the test nationally.
Reading Skills <ul style="list-style-type: none"> • Reasoning Skills • Referring Skills 	In area of reading, UTC students scored better than 54% of other seniors that take the test nationally.
Critical Thinking and Science Reasoning Skills Critical Thinking Skills <ul style="list-style-type: none"> • Analysis of Elements of Arguments • Evaluation of Arguments • Extension of Arguments Science Reasoning Skills <ul style="list-style-type: none"> • Analysis • Generalization • Understanding 	In area of critical thinking, UTC students scored better than 56% of other seniors that take the test nationally. In the area of science reasoning, UTC students scored better than 53% of other seniors that take the test.

Mean Collegiate Assessment of Academic Proficiency (CAAP) Scores :

UTC Seniors: 2005-06, 2006-07, and 2007-08

Test/Scale	2005 - 2006		2006 - 2007		2007 - 2008	
	UTC Mean	percentile	UTC Mean	percentile	UTC Mean	percentile
Writing Skills						
Usage and Mechanics	17.3	58	17.4	61	17.3	61
Rhetoric	17.3	57	17.4	58	17.3	58
Writing Skills Total	64.6	58	64.9	58	64.5	56
Mathematics						
Basic Algebra	15.4	66	15.5	70	15.4	67
College Algebra	14.7	68	15.0	73	15	74
Mathematics Total	58.1	68	58.2	72	58	67
Reading						
Arts & Literature	16.3	60	16.3	61	16.2	63
Social Studies &	16.5	54	17.0	57	16.4	54

Sciences						
Reading Total	63.2	55	63.6	58	62.9	54
Critical Thinking	64.1	55	64.5	57	63.9	56
Science Reasoning	60.8	54	60.6	53	60.7	53

*Norm Group = CAAP Tested College Seniors

Measure of Academic Proficiency and Progress (ETS MAPP) Results

MAPP Proficiency Levels

	Reading Level 1		Reading L 2		Critical Think L 3	
	Freshman	Senior	Freshman	Senior	Freshman	Senior
% P	48	80	12	48	0	12
% M	33	10	18	19	7	16
% N	20	10	70	33	93	72
	Students who are proficient can: <ul style="list-style-type: none"> recognize factual material explicitly presented in a reading passage understand the meaning of particular words or phrases in the context of a reading passage 		Students who are proficient can: <ul style="list-style-type: none"> synthesize material from different sections of a passage recognize valid inferences derived from material in the passage identify accurate summaries of a passage or of significant sections of the passage understand and interpret figurative language discern the main idea, purpose or focus of a passage or a significant portion of the passage 		Students who are proficient can: <ul style="list-style-type: none"> evaluate competing causal explanations evaluate hypotheses for consistency with known facts determine the relevance of information for evaluating an argument or conclusion determine whether an artistic interpretation is supported by evidence contained in a work recognize the salient features or themes in a work of art evaluate the appropriateness of procedures for investigating a question of causation evaluate data for consistency with known facts, hypotheses or methods recognize flaws and inconsistencies in an argument 	

P = "Proficient; M = Marginal; N = Not Proficient"

	Writing L 1		Writing L 2		Writing L 3	
	Freshman	Senior	Freshman	Senior	Freshman	Senior
% P	52	79	11	30	2	11
% M	28	18	33	42	21	36
% N	20	3	56	28	77	53
	Students who are proficient can: <ul style="list-style-type: none"> recognize agreement among basic grammatical elements (e.g., nouns, verbs, pronouns and conjunctions) recognize appropriate transition words recognize incorrect word choice order sentences in a paragraph order elements in an outline 		Students who are proficient can: <ul style="list-style-type: none"> incorporate new material into a passage recognize agreement among basic grammatical elements (e.g., nouns, verbs, pronouns and conjunctions) when these elements are complicated by intervening words or phrases combine simple clauses into single, more complex combinations recast existing sentences into new syntactic combinations 		Students who are proficient can: <ul style="list-style-type: none"> discriminate between appropriate and inappropriate use of parallelism discriminate between appropriate and inappropriate use of idiomatic language recognize redundancy discriminate between correct and incorrect constructions recognize the most effective revision of a sentence 	

P = "Proficient; M = Marginal; N = Not Proficient"

	Math L 1		Math L 2		Math L 3	
	Freshman	Senior	Freshman	Senior	Freshman	Senior
% P	44	59	16	28	3	10
% M	28	22	28	27	12	14
% N	28	19	56	45	85	76
	<p>Students who are proficient can:</p> <ul style="list-style-type: none"> • solve word problems that would most likely be solved by arithmetic and do not involve conversion of units or proportionality. These problems can be multi-step if the steps are repeated rather than embedded. • solve problems involving the informal properties of numbers and operations, often involving the Number Line, including positive and negative numbers, whole numbers and fractions (including conversions of common fractions to percent, such as converting "1/4" to 25%) • solve problems requiring a general understanding of square roots and the squares of numbers • solve a simple equation or substitute numbers into an algebraic expression • find information from a graph. This task may involve finding a specified piece of information in a graph that also contains other information. 		<p>Students who are proficient can:</p> <ul style="list-style-type: none"> • solve arithmetic problems with some complications, such as complex wording, maximizing or minimizing, and embedded ratios. These problems include algebra problems that can be solved by arithmetic (the answer choices are numeric). • simplify algebraic expressions, perform basic translations, and draw conclusions from algebraic equations and inequalities. These tasks are more complicated than solving a simple equation, though they may be approached arithmetically by substituting numbers. • interpret a trend represented in a graph, or choose a graph that reflects a trend • solve problems involving sets; problems have numeric answer choices 		<p>Students who are proficient can:</p> <ul style="list-style-type: none"> • solve word problems that would be unlikely to be solved by arithmetic; the answer choices are either algebraic expressions or numbers that do not lend themselves to back-solving • solve problems involving difficult arithmetic concepts such as exponents and roots other than squares and square roots and percent of increase or decrease • generalize about numbers (e.g., identify the values of (x) for which an expression increases as (x) increases) • solve problems requiring an understanding of the properties of integers, rational numbers, etc. • interpret a graph in which the trends are to be expressed algebraically or one of the following is involved: exponents and roots other than squares and square roots, percent of increase or decrease • solve problems requiring insight or logical reasoning. 	

P = "Proficient; M = Marginal; N = Not Proficient"

When compared with freshman, UTC seniors have made significant progress in the areas of critical thinking, reading, writing, math, humanities, social sciences and natural sciences ($p < .05$).

t-TESTS Freshman vs. Senior

Total score	p =	0.0000
Critical Thinking	p =	0.0000
Reading	p =	0.0000
Writing	p =	0.0000
Math	p =	0.0077
Humanities	p =	0.0000
Social Sciences	p =	0.0000
Natural Sciences	p =	0.0000

MAPP UTC Freshman/Senior Data

Scaled Scores

	Total		Critical Thinking		Reading		Writing	
	Freshman	Senior	Freshman	Senior	Freshman	Senior	Freshman	Senior
Mean	433.8	449.1	108.8	113.6	114.6	119.7	112.9	115.7
Standard Deviation	12.8	18.6	5.3	6.4	5.3	6.5	4.2	4.2
Percentile	24	53	22	66	22	34	24	42

	Math		Humanities		Social Sciences		Natural Sciences	
	Freshman	Senior	Freshman	Senior	Freshman	Senior	Freshman	Senior
Mean	111	113.4	112.3	116.5	110.7	115.4	112.9	116.6
Standard Deviation	5	6	5.6	6.4	4.4	6.3	4.5	5.7
Percentile	20	24	24	54	18	61	22	48

UTC Native/Transfer Data

Note: Compares students entering UTC as freshman and staying at UTC through graduation (natives) vs. students who transfer to UTC at any point (transfers)

	Total		Critical Thinking		Reading		Writing	
	Native	Transfer	Native	Transfer	Native	Transfer	Native	Transfer
Mean	449.49	449.59	113.69	114.02	119.57	120.12	115.92	115.54
Standard Deviation	18.94	18.18	6.13	6.63	7.05	5.52	4.26	4.10
T-test results (p value)	0.029566*		0.051046		0.015734*		.0224093*	

	Math		Humanities		Social Sciences		Natural Sciences	
	Native	Transfer	Native	Transfer	Native	Transfer	Native	Transfer
Mean	113.46	113.24	116.59	116.73	115.31	115.83	116.64	116.80
Standard Deviation	6.11	5.95	6.37	6.46	6.45	6.00	6.14	4.86
T-test results (p value <.05)	0.214615		0.036308*		0.072958		0.047099*	

* significant differences between native and transfer students

Proficiency Levels: Natives vs. Transfers

	Reading Level 1		Reading L 2		Critical Think L 3	
	Native	Transfer	Native	Transfer	Native	Transfer
% P	78.7	85.4	52.5	43.9	13.1	9.7
% M	8.2	9.8	13.1	29.3	18	17.1
% N	13.1	4.8	34.4	26.8	68.9	73.2

P = "Proficient; M = Marginal; N = Not Proficient"

	Writing L 1		Writing L 2		Writing L 3	
	Native	Transfer	Native	Transfer	Native	Transfer
% P	80.3	78	31.1	29.3	11.5	12.2
% M	18	17.1	39.3	46.3	39.3	31.7
% N	1.7	4.9	29.6	24.4	49.2	56.1

P = "Proficient; M = Marginal; N = Not Proficient"

	Math L 1		Math L 2		Math L 3	
	Native	Transfer	Native	Transfer	Native	Transfer
% P	62.3	53.7	29.5	24.4	9.8	9.8
% M	16.4	31.7	27.9	26.8	16.4	9.8
% N	21.3	14.6	42.6	48.8	73.8	80.4

P = "Proficient; M = Marginal; N = Not Proficient"

Appendix D
Overall Results from the Student Portfolio Review
 (Completed by faculty committees, December 2009)

Behavioral and Social Sciences

Across the four competencies assessed through the student portfolios, the faculty assessing a random selection of student work determined that only one of the competencies could be evaluated from the work submitted. On this competency (demonstrate knowledge of contemporary relevance of the social/behavioral sciences), 73.8% of the student work assessed was at the exemplary or satisfactory level.

Behavioral and Social Sciences	Competencies (relevant overall competencies in parenthesis)	Measures (percentage of student work assessed to be Exemplary or Satisfactory)
	Demonstrate disciplinary knowledge of human/social activity and behavior	Unable to assess
	Demonstrate knowledge of behavioral/social science research methods	Unable to assess
	Demonstrate knowledge of the impact of behavioral/social science research	Unable to assess
	Demonstrate knowledge of the contemporary relevance of the social/behavioral sciences	73.8%

Humanities & Fine Arts

Across the five competencies assessed through the student portfolios, the faculty assessing a random selection of student work determined that four could be evaluated from the work submitted. On average, 55.65% of the students were assessed at the exemplary or satisfactory level.

Humanities and Fine Arts	Competencies (relevant overall competencies in parenthesis)	Measures (percentage of student work assessed to be Exemplary or Satisfactory)
	Demonstrate knowledge of significant developments and achievements in the humanities or fine arts (1, 2, 3, 4, 5, 7).	Unable to assess
	Demonstrate knowledge of the historical context of significant developments and achievements in the humanities or fine arts (1, 2, 3, 4, 5, 7).	61.3%
	Demonstrate knowledge of the relationship between creative expression and human experience and its evolution over time (1, 2, 3, 4, 5, 7).	59.1%
	Demonstrate knowledge of value and belief systems and their ramifications for humanistic inquiry and expression (1, 2, 3, 4, 5, 7).	51.1%
	Demonstrate knowledge of disciplinary methods in the humanities or fine arts (1, 2, 3, 4, 5, 7).	51.1%

Math & Statistics

Across the five competencies assessed through the student portfolios, the faculty assessing a random selection of student work determined that all but one could be evaluated from the work submitted. On average, 49.84% of the students were assessed at the exemplary or satisfactory level.

Mathematics and Statistics	Competencies (relevant overall competencies in parenthesis)	Measures (percentage of student work assessed to be Exemplary or Satisfactory)
	Demonstrates knowledge of quantitative and/or statistical concepts and methods (1, 2, 3, 6, 7).	58.7%
	Demonstrates knowledge of quantitative and/or statistical problem solving strategies (1, 2, 3, 6, 7).	57.5%
	Demonstrates knowledge of mathematical and/or statistical models (1, 2, 3, 5, 6, 7).	57.5%
	Demonstrates an ability to communicate mathematical and/or statistical knowledge using appropriate notation and vocabulary (1, 2, 3, 6, 7).	Unable to assess
	Demonstrates knowledge of the strengths and limitations of employing mathematical and/or statistical methods in addressing human problems (1, 2, 3, 5, 6, 7).	41.3%

Natural Sciences

Across the five competencies assessed through the student portfolios, the faculty assessing a random selection of student work determined that all could be evaluated from the work submitted. On average, 78.56% of the students were assessed at the exemplary or satisfactory level.

Natural Sciences	Competencies (relevant overall competencies in parenthesis)	Measures (percentage of student work assessed to be Exemplary or Satisfactory)
	Demonstrate disciplinary knowledge in the natural and physical sciences.	92.8%
	Demonstrate knowledge of the historical context of scientific achievement.	82.1%
	Demonstrate knowledge of the role of creativity and logical reasoning in scientific discovery.	75.0%
	Demonstrate knowledge of the strengths and limitations of empirical approaches to understanding and influencing the natural world.	67.9%
	Demonstrate knowledge of the impact of scientific and technological development on human society.	75.0%

Rhetoric & Composition

Across the five competencies assessed through the student portfolios, the faculty assessing the student work determined that all could be evaluated from the work submitted. On average, 65.02% of the students were assessed at the exemplary or satisfactory level.

Rhetoric and Composition	Competencies (relevant overall competencies in parenthesis)	Measures (percentage of student work assessed to be Exemplary or Satisfactory)
	Recognize that writing always takes place within specific rhetorical situations (1, 2, 3).	73.5%
	Compose appropriate texts for a variety of purposes and audiences. (1,2,3,7)	78.1%
	Organization, reasoning and support.(1,2,3,7)	56.3%
	Research and use of sources. (1,2, 3,7)	54.7%
	Use appropriate conventions of presentation for audience, employing standard documentation styles and Standard American English. (1,2, 3,7)	62.5%

Cultures & Civilizations

World Civilizations

Across the four competencies assessed through the student portfolios, the faculty assessing a random selection of student work determined that all could be evaluated from the work submitted. On average, 87.15% of the students were assessed at the exemplary or satisfactory level.

CC: World civilizations	Competencies (relevant overall competencies in parenthesis)	Measures (percentage of student work assessed to be Exemplary or Satisfactory)
	Demonstrate knowledge of major developments in the histories of the world's civilizations and cultures.	93.8%
	Demonstrate knowledge of major world historical developments that were cross-cultural and/or global in nature.	87.5%
	Demonstrate a knowledge of how world civilizations responded to similar ideas, inventions, and institutions.	86.0%
	Demonstrate an ability to think historically.	81.3%

Non-western Civilizations

Across the four competencies assessed through the student portfolios, the faculty assessing a random selection of student work determined that all could be evaluated from the work submitted. On average, 80.17% of the students were assessed at the exemplary or satisfactory level.

CC: Non-western cultures and civilizations	Competencies (relevant overall competencies in parenthesis)	Measures (percentage of student work assessed to be Exemplary or Satisfactory)
	Demonstrate knowledge of non-western civilizations	96.6%
	Demonstrate knowledge of historical contexts	93.1%
	Demonstrate knowledge of similarities in and differences between non-western and western cultures and civilizations	Unable to assess

Western Humanities

Across the three competencies assessed through the student portfolios, the faculty assessing the student work determined that none could be evaluated from the work submitted.

CC: Western humanities	Competencies (relevant overall competencies in parenthesis)	Measures (percentage of student work assessed to be Exemplary or Satisfactory)
	Demonstrate knowledge of great ideas, creative achievements, and modes of thinking in the western world	Unable to assess
	Demonstrate knowledge of the historical context of great works in the western artistic, literary, musical, philosophical, and religious traditions	Unable to assess
	Demonstrate knowledge of the western tradition's contributions to the shaping of contemporary culture and society	Unable to assess

UTC General Education Faculty

	General Education Courses (all)	
	Number of Sections	Percentage %
Adjunct (not listed in the faculty roster)	327	31.05%
Lecturer (all levels)	283	26.88%
Clinical Appointments (all)	23	2.18%
Assistant/Associate Professor Tenure Track	93	8.83%
Assistant/Associate Professor Tenured	83	7.88%
Professor Tenure Track	47	4.46%
Professor Tenured	197	18.71%
TOTAL	1053	100.00%

	Rhetoric and Composition		Western Humanities I and II		Non-western Cultures and Civilizations		World Civilizations	
	Number of Sections	Percentage %	Number of Sections	Percentage %	Number of Sections	Percentage %	Number of Sections	Percentage %
Adjunct (not listed in the faculty roster)	51	29.14%	30	30.61%	12	30.77%	8	16.00%
Lecturer (all levels)	123	70.29%	40	40.82%	10	25.64%	13	26.00%
Clinical Appointments (all)	0	0.00%	0	0.00%		0.00%	7	14.00%
Assistant/Associate Professor Tenure Track	1	0.57%	22	22.45%	6	15.38%	12	24.00%
Assistant/Associate Professor Tenured	0	0.00%	4	4.08%	1	2.56%	0	0.00%
Professor Tenure Track	0	0.00%	2	2.04%	4	10.26%	0	0.00%
Professor Tenured	0	0.00%	0	0.00%	6	15.38%	10	20.00%
TOTAL	175	100.00%	98	100.00%	39	100.00%	50	100.00%

	Humanities and Fine Arts		Behavioral and Social Sciences		Natural Sciences		Mathematics and Statistics	
	Number of Sections	Percentage %	Number of Sections	Percentage %	Number of Sections	Percentage %	Number of Sections	Percentage %
Adjunct (not listed in the faculty roster)	55	44.00%	49	31.41%	102	35.79%	20	16.39%
Lecturer (all levels)	17	13.60%	17	10.90%	42	14.74%	24	19.67%
Clinical Appointments (all)	5	4.00%	0	0.00%	0	0.00%	12	9.84%
Assistant/Associate Professor Tenure Track	10	8.00%	9	5.77%	25	8.77%	13	10.66%
Assistant/Associate Professor Tenured	5	4.00%	18	11.54%	24	8.42%	19	15.57%
Professor Tenure Track	3	2.40%	7	4.49%	33	11.58%	0	0.00%
Professor Tenured	30	24.00%	56	35.90%	59	20.70%	34	27.87%
TOTAL	125	100.00%	156	100.00%	285	100.00%	122	100.00%

Tennessee Higher Education Commission
Revised Policy - Academic Proposals

Approved: November 14, 2002

Section Title: Academic Policies

Policy Title: Academic Proposals

Policy Number: A1.0

General

1.0.10 **Scope and Purpose.** In accordance with Chapter 179 of the Legislative Act creating the Higher Education Commission in 1967, the Commission has the statutory responsibility to review and approve new academic programs, off-campus extensions of existing academic programs, new academic units and new instructional locations for public institutions of higher education in the State of Tennessee. These responsibilities shall be exercised so as to:

- promote academic quality
- maximize cost effectiveness and efficiency to ensure that the benefits to the state outweigh the costs and that existing programs are adequately supported
- fulfill student demand, employer need and societal requirements
- avoid and eliminate unnecessary duplication to ensure that proposed programs cannot be delivered through collaboration or alternative arrangements
- encourage cooperation among all institutions, both public and private

In order to ensure that these responsibilities are optimized, the Commission strenuously considers the following criteria in order to maximize state resources:

Need – evidence of program need that justifies institutional allocation/reallocation of state resources. Please refer to proposal format for criteria.

Program Costs/Revenues – evidence that program costs may be met from internal reallocation or from other sources, such as grants and gifts, instead of being met from additional Formula dollars will be viewed favorably. Institutional commitment

Tennessee Higher Education Commission **Revised Policy - Academic Proposals**

should be consistent with the centrality and level of priority as described in the program proposal.

Quality – evidence should be provided based on required criteria that are identified on forms for new program proposals.

1.0.20 **Schedule.** The Commission will normally consider proposals for new programs, extensions of existing academic programs, academic units, and instructional locations only at its July and January meetings; however, in special circumstances, consideration may be given at other Commission meetings.

1.0.30 **Action.** Commission action on a given proposal must follow approval by the governing board and may take one of four forms:

- approval
- disapproval
- conditional approval
- deferral

Conditional approval may be granted in special cases. This type of approval is reserved for programs for which the need is temporary. Conditional approvals will identify a date that the program must be terminated.

1.0.40 **Funding.** Evidence must be provided on forms for approval of new academic programs relative to internal reallocation and/or other sources such as grants and gifts must be validated. The Commission will approve no special start-up funding (See 1.0.10, Program Costs/Revenue).

1.0.50 **Early Consultation/Notification.**

Upon consideration by an institution to develop a proposal for a new program, governing board staffs must provide the Commission staff with a copy of that institution's letter of intent to develop a program proposal. Programs that institutions intend to develop should be consistent with and reference the campus master plan or academic plan. This is necessary for programs requiring Commission approval in order to identify issues relative to the need for the program, program duplication, accessibility through collaboration or alternative means of delivery (distance education) and the need for reviews by external consultants.

Tennessee Higher Education Commission Revised Policy - Academic Proposals

Upon consultation and approval to proceed, governing board staffs must share early versions of proposals with the Commission staff and provide the final proposal at least two weeks prior to notification of being placed on the agenda for consideration by a governing board (See also 1.1.20A in Policy A1.1 - New Programs).

- 1.0.60 **Articulation/Transfer.** Upon consideration of a new baccalaureate program, evidence must be provided to ensure adherence to the requirements of Chapter 795 of the Public Acts of 2000. “The university track program within the University of Tennessee and the Tennessee Board of Regents systems consists of general education courses and pre-major courses as prescribed by the Commission. Courses in the university track program shall transfer and apply toward the requirements for graduation with a bachelor’s degree at all public universities. Successful completion of the university track program shall meet the academic requirement for transfer to a public university as a junior.”
- 1.1.60A **Time to Degree.** The Commission recommends that credit hour requirements for new and existing undergraduate academic programs shall not be substantially more than 120 hours for baccalaureate degrees or 60 hours for associate degrees without justification. The principle intent is to reduce the time and costs of earning a degree for individual students and taxpayers and, over time, improve graduation rates and increase the higher educational attainment levels of Tennesseans. This excludes programs with accreditation or licensure requirements.
- 1.1.70 **Announcements.** Announcements of plans for new academic programs, extensions of existing programs, new academic units, and/or new instructional locations must await Commission approval, prior to implementation.

Tennessee Higher Education Commission
Revised Policy - Academic Proposals

Section Title: Academic Policies

Policy Title: Academic Proposals

Policy Number: A1.1

New Programs

- 1.1.10 **Programs Subject to Approval.** New academic programs requiring Commission approval are those that differ from currently approved programs in level of degree or major offered, as reflected in the institution's catalog and the Commission's academic inventory, subject to specified provisions. A standard format is required to ensure that all proposals for new academic programs are submitted in a complete and consistent manner.
- 1.1.10A **Non-degree and non-certificate programs.** Commission approval is not required for non-degree and non-certificate programs, such as those offered at State Technology Centers.
- 1.1.10B **Undergraduate Certificates.** Commission approval for an undergraduate certificate program is required only when the program would be both free standing and consists of at least 24 semester hours.
- 1.1.10C **(Reserved)**
- 1.1.10D **Name Changes.** Renaming an existing program without an essential change in the originally approved curriculum does not require Commission approval; planned large-scale curriculum change in a program without a name change does require Commission approval.
- 1.1.10E **Reconfigurations.** A reconfiguration of existing programs without an essential change in the originally approved curriculum and without a net gain in the number of programs (e.g., a consolidation of two programs into one) does not require Commission approval.
- 1.1.10F **Sub-majors.** Additions, deletions, and revisions of sub-majors (options, concentrations emphases, tracks, etc.) without an essential change in the originally approved major curriculum do not require Commission approval.

Tennessee Higher Education Commission
Revised Policy - Academic Proposals

- 1.1.10G **Notice.** Before governing board consideration of the changes described in Provisions 1.1.10A - 1.1.10F above, a two-week notice should be given to the Commission staff. In the event the staff interprets the proposed change as one requiring Commission approval, prompt arrangements will be made to discuss the proposed change with the institution and its governing board staff for a determination of applicable policy.
- 1.1.10H **Special Areas.** For programs at baccalaureate or higher level in Agriculture, Education, and Engineering where there is great potential for unnecessary program duplication, no additional programs may be submitted for approval without exceptional determination of need. Such need must be demonstrated to and approved by governing board and Commission staff before the proposal or development of any new programs in these three areas.
- 1.1.20 **Criteria for Review.** The criteria set out in Provisions 1.1.20A - 1.1.20Q will generally be used in reviewing new program proposals. However, the stringency of individual criteria will depend on the specific program, and, in particular circumstances, other criteria may be added at the time of notification (see 1.0.050).

References to provisions of certain institutional policies, such as overall admissions standards, do not mean that such policies need to be approved by the Commission.

- 1.1.20A **Mission.** Proposed new programs must adhere to the role and scope as set forth in the approved mission of the institution.
- 1.1.20B **Curriculum.** The curriculum should be adequately structured to meet the stated objectives of the program, and reflect breadth, depth, theory, and practice appropriate to the discipline and the level of the degree. The undergraduate curriculum should also include a limited number of courses to satisfy General Education requirements and should be compatible with accreditation, where applicable, and meet the criteria for articulation and transfer (see 1.0.60).

Tennessee Higher Education Commission
Revised Policy - Academic Proposals

- 1.1.20C **Academic Standards.** The admission, retention, and graduation standards should be clearly stated, be compatible with institutional and governing board policy, and encourage high quality.
- 1.1.20D **Faculty.** Current and/or anticipated faculty resources should ensure a program of high quality. The number and qualifications of faculty should meet existing institutional standards and should be consistent with external standards, where appropriate.
- 1.1.20E **Library Resources.** Current and/or anticipated library resources should be adequate to support a high quality program and should meet recognized standards for study at a particular level or in a particular field where such standards are available.
- 1.1.20F **Administration/Organization.** The organizational placement and the administrative responsibility for the program should be clearly defined and designed to promote success of the program.
- 1.1.20G **Support Resources.** All other support resources--existing and/or anticipated, should be adequate to support a high quality program. This would include clear statements of clerical personnel or equipment needs, and arrangements for clinical or other affiliations necessary for the program.
- 1.1.20H **Facilities.** Existing and/or anticipated facilities should be adequate to support a high quality program. New and/or renovated facilities required to implement the program should be clearly outlined by amount and type of space, costs identified and source of costs. (Facility Master Plans F4.1)
- 1.1.20I **Need and Demand.** Evidence should be provided that a proposed new program contributes to meeting the priorities/goals of the institution's academic or master plan, why the institution needs that program, and why the state needs graduates from that particular program.

Student Demand. Evidence of student demand, normally in the form of surveys of potential students and enrollment in related programs at the institution, should be adequate to expect a reasonable level of productivity.

Tennessee Higher Education Commission

Revised Policy - Academic Proposals

Employer Need/Demand. Evidence of sufficient employer demand/need, normally in the form of anticipated openings in an appropriate service area (that may be national, regional, or local), in relation to existing production of graduates for that service area. Evidence may include the results of a need assessment, employer surveys, current labor market analyses, and future workforce projections. Where appropriate, evidence should also demonstrate societal need and employers' preference for graduates of the proposed program over persons having alternative existing credentials and employers' willingness to pay higher salaries to graduates of the proposed program.

- 1.1.20J **No Unnecessary Duplication.** Where other similar programs may serve the same potential student population, evidence should demonstrate that the proposed program is sufficiently different from the existing programs or that access to the existing programs is sufficiently limited to warrant initiation of a new program. The proposal should explain why it is more cost effective or otherwise in the best interests of the State to initiate a new program rather than meet the demand through other arrangements. (E.g., collaborative means with another institution distance education technologies, Academic Common Market, consortia).
- 1.1.20K **Cooperating Institutions.** For programs needing the cooperation of other institutions (including government, education, health, and business), evidence of the willingness of these institutions to participate is required.
- 1.1.20L **Desegregation.** The program should not impede the state's effort to achieve racial diversity. A statement should be provided as to how the proposed program would enhance racial diversity.
- 1.1.20M **Assessment/Evaluation and Accreditation.** Evidence should be provided to demonstrate that careful evaluation of the program being proposed would be undertaken periodically. Information must be provided to indicate the schedule for program assessments or evaluations, (including program reviews associated with Performance Funding) those responsible for conducting them, and how the results are to be used. Where appropriate, professional organizations that accredit programs should be identified and any substantive change that may require a SACS review should be indicated.

Tennessee Higher Education Commission
Revised Policy - Academic Proposals

1.1.200 **Graduate Programs.** New graduate programs will be evaluated according to the principles set forth by the Tennessee Council of Graduate Schools.

1.1.200 **External Judgment.** The Commission staff may, in consultation with the governing board staffs, determine that review by an external authority is required before framing a recommendation to the Commission. Consultants will normally be required for new graduate programs. Consultants will not normally be required for new undergraduate and certificate programs, but there may be exceptions in cases of large cost or marked departure from existing programs at the institution.

1.1.20P **Cost/Benefit.** The benefit to the state should outweigh the cost of the program. Institutions should, in the program proposal, estimate the effect on funding caused by the implementation of the program. Detailed costs should be provided on forms required for consideration of new undergraduate and graduate programs (see 1.0.10, Program Costs/Revenues). These details should include reallocation plans, grants, gifts or other external sources of funding/partnerships.

1.1.30 **Post Approval Monitoring.** During the first five years (three years for pre-baccalaureate programs) following approval, performance of the program, based on goals established in the proposal, will be evaluated annually. At the end of this period, campus, governing board, and Commission staff will perform a summative evaluation. These goals will include, but not be limited to, enrollment and graduation numbers, program cost, progress toward accreditation, library acquisitions, student performance, and other goals set by the institution and agreed to by governing board and Commission staff. As a result of this evaluation, if the program is deficient, the Commission may recommend to the governing board that the program be terminated. Copies of such recommendation will be forwarded to the Education Committees of the General Assembly. The Commission may also choose to extend this period if additional time is needed and is requested by the governing board.

1.1.30A **Schedule.** At the July Commission meeting the Commission will review post approval reports on programs that have recently received approval.

Tennessee Higher Education Commission
Revised Policy - Academic Proposals

- 1.1.30B **Unfulfilled Productivity.** Institutions with programs that fall markedly short of projected goals as approved in program proposals, should submit, through their governing boards, an explanation of the shortfall and a discussion of the future expectations to accompany program progress reports.
- 1.1.30C **Further Action.** The Commission may request the governing board to take action on any program that is performing significantly below projections.