2002-03 Planning and Review Committee

Consultant Report

I. General Education Component: General Education Technology Component

General Education Coordinator: Carol Mooney

PRC Consultant(s): Dick Tyson and Hugh Williamson

Purpose of the Review: The purpose of this review is to assess the quality of this component of General Education at UW-Stout.

Committee Findings: The Planning and Review Committee recommends that the array of courses designed to satisfy this general education component continue through the next review provided that the committee’s recommendations be implemented.

II. Abstract:

The university integrates general education in the humanities; arts; and natural, physical and social sciences into its undergraduate programs. Experiences in these areas provide a foundation for the major field of study, promote continuing personal and professional growth, and prepare the student to deal constructively with issues and opportunities of the future. UW-Stout embraces hands-on, minds-on education with a rich heritage in technology. All undergraduate students are required to complete at least a 2-credit course to meet this component of general education. This requirement helps prepare graduates to become aware of technologies that are used every day, to think critically about technology, and become more technologically literate. Each of the approved courses must provide a rationale and evidence that the objectives articulate with the criteria set forth by the General Education Committee. The breadth of courses available for students in this category represents a wide range of areas of study in several disciplines. Many of the courses incorporate hands-on teaching methodology and allow students to research and develop ideas related to the general objectives of this category while meeting the course objectives.

The senior level self-assessment indicates that students feel they have a good knowledge about how technology affects the environment and the human experience. Assessment of cognitive achievement for purposes of this review (and NCA accreditation) has been neglected until recently, and is only in the formative stages. A GE Technology Assessment Coordinator and committee were appointed in 2002 and have developed and submitted a revised assessment plan for the component in the Spring of 2002. A rubric was developed that incorporated each of the GE technology criteria and objectives, modified and operationalized to meet the needs of each course, the content and the delivery styles of the instructors. Piloting of the rubric occurred during the Fall term of 2002. The GE Technology Committee will meet in the Spring of 2003 to revise the rubric based on the pilot. All GE technology courses will incorporate the rubric assessment during the Spring semester of 2003. The results will be analyzed in the Spring of 2003. Facilities for courses are deemed adequate. The inability to regularly offer the breadth of courses limits students’ choices in fulfilling the requirement.

It is recommended that the general education coordinator submit a report to the PRC in 2004, 2005, and 2006 on the implementation and results of the assessment. It is also recommended that the coordinator, departments, and committee attempt to schedule course offerings in order to provide students with greater opportunities in completing this component.
III. Process Followed for Current Review:

The Planning and Review Committee Chair and Vice Chair met with the general education coordinator and associate dean to explain the review process that would be used. The two consultants from the PRC met with the general education coordinator to provide assistance in the preparation of the report. The PRC examined the general education coordinator’s report as well as information from other relevant sources that included: questionnaires that surveyed key instructors of courses in this general education component and students. Information from the university’s one and three-year follow-up of graduates was also reviewed.

IV. Previous Review:

None

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V. Current Review:

The general education component in technology corresponds to the University General Education Objectives: “Recognize and appreciate the inter-relationship between the ideological, sociological and technological adaptive systems and their impact on the human experience and the environment.” The specific criteria of the component for courses used to satisfy the GE distribution requirements for technology must include all of the following as primary instructional purpose:

a. Introduction to major concepts of technology as a discipline, providing insights into its breadth and into its relationship to other disciplines.
b. Research information regarding materials, energy, information, people and tools as they apply to technological systems designed to meet human needs and wants.
c. Implications and alternative interpretations of technological changes to determine impacts on individuals, society and the future.

The following courses are currently approved as meeting the General Education Technology component. Each course incorporates the three listed criteria to satisfy the GE Technology requirements.

AEC 191 The Built Environment ........................................ 2 credits
ENGL 218 Mass Comm-Effects of the Techn on Society ...... 3
ENGL 343 Rhetoric of Technology ........................................ 3
MFGE 106 Impacts of Engineering Design ...................... 2
PKG 100 Packaging & Society ............................................. 2
POLS 250 Polities and Technology ........................................ 3
SOC 300 Sociology of Technology ........................................ 3
TCS 103 Communication and Information Technology .......... 3
TECH 230 Exploring Technology ........................................... 2
TECH 320 Technological Advances--Fast Fwd I ............... 2
TECH 321 Technological Advances--Fast Fwd II ............... 2
TECH 332 Futures of Technology ......................................... 2
TRANS 202 Transportation Systems .................................... 2
Key Instructors in these courses were surveyed. They report that facilities and other support (library, clerical, materials, Instructional Technology, etc.) for their courses were good. Exploring Technology has attracted the largest number of students; that course and Packaging & Society have been taught in large lecture format. There are few classrooms for large lectures on campus.

Senior-level students were surveyed with regard to whether they felt that they understood how technology affects the human experience and how it affects the environment. Their average response was 3.5 and 3.43 respectively which is generally higher than responses to other questions about their general education such as their ability to use logical and mathematical reasoning, appraise the ethical consequences of decisions, appreciate the fine and performing arts, etc.

Assessment of cognitive achievement of objectives of the technology component has been neglected until recently. A pilot instrument was apparently developed for the Exploring Technology course several years ago. Results are not available. Follow up on this and other GE components’ assessment by administrators assigned to the task generally has not been done. A GE Technology Assessment coordinator and committee were appointed in 2002 and have developed and submitted a revised assessment plan for the component in the Spring of 2002. A rubric was developed that incorporated each of the GE Technology criteria and objectives, modified and operationalized to meet the needs of each course, the content and the delivery styles of the instructors. Piloting of the rubric occurred during the Fall term of 2002. The GE Technology Committee will meet in the Spring of 2003 to revise the rubric based on the pilot. All GE technology courses will incorporate the rubric assessment during the Spring semester of 2003. The results will be analyzed in the Spring of 2003. The coordinator indicates that a report will then be made to the Associate Vice Chancellor.

A question remains in the minds of some faculty and students as to the need for the Technology Component in General Education, particularly in technology-rich programs. This indicates confusion between one of the purposes of the component, which is to learn about implications and alternative interpretations of technological changes and their impacts on individuals, society and the future, and one of the purposes of the professional programs which is to become proficient in the use of technology.

**Program Strengths:**

1. Students perceive good knowledge of technology and its impact on society and the environment.
2. Students have a number of course options for fulfilling the requirement.
3. Facilities and support for instruction is generally good.

**Issues of Concern:**

1. No evidence of cognitive achievement of GE Technology Component objectives is available.

**Source:**

Senior-level assessment

GE requirements

Key instructor survey

Coordinator's report
2. Consensus on whether the component should be included in the General Education curriculum is not campus wide particularly in technology rich programs Coordinator's report, graduate, student surveys

3. Consistent array of technology component courses is not available. Coordinator's report

**Recommendations for the General Education Coordinator:**

1. Continue to monitor development and refinement of instruments for assessing achievement of Technology Component objectives in the various courses which satisfy the requirement. Report progress and results to the PRC annually in 2004-2006.

2. Initiate a dialog with program directors, the General Education Committee, and the Technology Component Committee as to the objectives of the component and how they may be most effectively and economically (in terms of student credits) met.

**Recommendation for the Department Chair(s):**

1. Work with the General Education Coordinator to make a consistent array of technology component courses available, perhaps through an agreement on rotation or other arrangements.

**ADDENDUM: November 7, 2003 (Approved by PRC)**

Since the General Education Committee and the Faculty Senate committee on instructional efficiencies is now reviewing the structure of General Education and how its objectives can best be achieved, the PRC would withdraw its Recommendation #2 for the General Education Coordinator of the Technology Component.