

**SPECIAL REPORT**

of the

**GENERAL EDUCATION COUNCIL**

concerning

**PROPOSED NEW GENERAL EDUCATION DESIGNATION:  
“SCIENCE INTERDISCIPLINARY” OR “SI”**

Presented at the  
626<sup>th</sup> Regular Meeting of the Faculty Senate  
December 18, 2003

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**Proposed new General Education designation: “Science Interdisciplinary” or “SI”**

According to recent figures from the Registrar's Office, nearly 39% of graduating seniors have taken only two science courses, when the GenEd requirement stipulates three courses. These students have used courses that bear the “T” (Interdisciplinary) designation to substitute for the third science course. In principle, this should not be a problem if the “T” courses include science material in them. However, the vast majority of “T” courses engage departments and disciplines within the Social World area and do NOT involve the biological and physical sciences. Thus, a substantial fraction of our graduating students do not have an adequate science foundation, as envisioned by the General Education program. The proposed change in requirements redresses this problem.

The General Education Council proposes a new designation “Science Interdisciplinary” or “SI” for those General Education courses that engage frameworks and content that include one or more of the Social World disciplines and at the same time one or more of the disciplines of the Biological and Physical Sciences and Analytical Reasoning (see Appendix A). Currently approved “T” courses that meet this test shall be reclassified from “T” to “SI.” Students may substitute an “SI” course in place of the third required course in the Biological and Physical Sciences. The designation “T” shall be limited to those interdisciplinary courses that engage more than a single discipline within the Social World arena (see Appendix B). These same criteria shall be used to classify new courses that are submitted to the General Education Council for review.

The language governing the use of Interdisciplinary courses would be changed as follows:

Students may satisfy up to three of their General Education requirements by taking interdisciplinary courses. Courses that are interdisciplinary across the areas of the Social World have the “T” designation. Courses that are interdisciplinary between the Social World and the Biological/Physical Sciences and/or Analytic Reasoning have the “SI” (for Science Interdisciplinary) designation. Substitution of interdisciplinary courses for General Education requirements is restricted as follows:

- No substitutions may be made for College Writing, Basic Math Skills, or Analytic Reasoning.
- All students must take at least one course in each of the following areas: Literature, Historical Studies, Social and Behavioral Sciences, Biological Sciences, and Physical Sciences.
- An interdisciplinary course with the “T” designation can be substituted for the second Arts course (AL or AT), the second Social & Behavioral Sciences course (SB), or the sixth Social World course (AL, AT, HS, or SB).
- An interdisciplinary course with the “SI” designation can be substituted for the second Arts course (AL or AT), the second Social & Behavioral Sciences course (SB), the sixth Social World course (AL, AT, HS, or SB), or the third Science course (BS or PS).
- An Interdisciplinary course will fulfill a Social and Cultural Diversity requirement only if it carries both an Interdisciplinary designation and a Diversity designation (IG, IU, SIG, or SIU).

## Background / Rationale

The description of the General Education program, as approved by the Faculty Senate, includes the following language about interdisciplinary courses:

The General Education curriculum as described in the foregoing pages is organized mainly along the existing disciplinary structure of the University. Some faculty, however, have interests in offering entirely different kinds of courses, and some students are interested in taking them. Some of these courses are experimental, multi-disciplinary, and issue-focused, and, by their very nature, speak to the basic integration of (many) fields of human study. To create a mechanism whereby such courses can be offered on something other than an episodic basis, an Interdisciplinary aspect has been added to the General Education curriculum. In general, the point of this mechanism is to encourage pedagogical innovation and to provide multi-disciplinary undergraduate offerings.

An Interdisciplinary General Education course may be developed and taught by a single instructor or by a team of faculty from different disciplines. Another approach to interdisciplinary education would be to propose a cluster of courses which would be offered by faculty from different disciplines and be related to each other by a central topic or issue; the courses might be two or three, each of which could satisfy a different General Education requirement.

One example might be a course or courses organized around the topic of evolution. Scholars in astronomy, biology, and sociology with a specific interest and expertise in evolution might develop and offer a course or cluster of courses on the origin and evolution of the universe, the evolution of life, and social institutions. Another example might be a course or cluster of courses on the topic of cognitive science where a team of interested faculty in psychology, linguistics, and computer science would offer a course or cluster of courses in information processing, the semantics and syntax of language, and artificial intelligence. A third example might focus on major revolutionary movements of our time: feminism, Marxism, and black nationalism taught by faculty members in Women's Studies, Social Thought and Political Economy and Afro-American Studies. The course or cluster of courses would explore the similarities and differences among these movements. Clearly, the number of multidisciplinary topics and issues that might be offered by a faculty member or a team of faculty is boundless and limited only by creativity and imagination.

The distinguishing characteristic of all the courses sketched above is that they are recognizably different from usual undergraduate course offerings; they are focused mainly on issues or topics rather than on academic disciplines, and are deliberately interdisciplinary in nature. Courses of this sort, with the right mix of faculty and students meeting under the right conditions, could well be high points in a student's undergraduate experience, and they deserve encouragement.

Over time, the Faculty Senate has approved the "I" designation for 49 courses. Most of these courses involve the disciplines encompassed by the "Social World" part of the General Education program. These courses can be informative to students in ways that disciplinary courses are not, and they are a very valuable – and well-enrolled – segment of the General Education curriculum.

The original General Education program envisioned a small group of courses that were truly interdisciplinary, bringing together methods, ideas, and evidence from fields that superficially seem quite disparate. Courses that are undoubtedly interdisciplinary in this sense are those that cross the gulf between the natural sciences on the one hand and the arts, humanities, or social sciences on the other. These interdisciplinary courses are few indeed. Most of the courses that carry the “I” designation are interdisciplinary in a weaker though still legitimate sense, engaging two or more disciplines in the Social World category. The current system, which allows a course bearing the “I” designation to be substituted for certain requirements in the Social World and Biological and Physical Sciences areas, disregards this important difference.

**Impact on enrollments / other programs**

The Council recognizes that Commonwealth College requires that students complete interdisciplinary courses. Students in Commonwealth College may be disproportionately affected in that they are more likely to use Honors courses bearing the “I” designation to substitute for a second BS or second PS course.

The Council expects that there will be more enrollments in courses that bear the BS and PS designations, significant enrollment pressure on the few courses that bear the “SI” designation, and a decline in enrollments in courses that bear the “I” designation. There is currently adequate capacity to meet these expected shifts in demand.

**Recommendation and Motions**

The General Education Council recommends that the language recommended under “Proposal,” above, be substituted for what is now the final paragraph of the “Interdisciplinary” section of the document describing the General Education program (Sen. Doc. No. 85-024, as amended).

MOVED:        That the Faculty Senate approve the revision of the interdisciplinary aspect of the General  
19-04            Education program, as described in Sen. Doc. No. 04-019, with an effective date of  
                     implementation of Fall 2005.

**Appendix A: Courses whose designation could be changed from “T” to “SF”**

COM-HLTH 160	My Body, My Health (PUB HL)
COM-HLTH 233	Sex, Drugs & AIDS (PUB HL)
COMP-LIT 236	Digital Culture
ENGIN 190E	Engineering: The Human Enterprise
GEO-SCI 250	Natural Disasters
HONORS 292E	Environmental Issues of Massachusetts
HONORS 392E	Environmentalism as Metaphor
M&I-ENG 190H	Introduction to Engineering Design
NRC 100	The Environment & Society
NURSING 312	Cultural Diversity in Health & Illness
PLNTSOIL 115	Plants, Soils & the Environment

**Appendix B: Courses that would retain the “T” designation**

AFROAM 190B	Minority Experience in American Life & Culture I
AFROAM 190C	Minority Experience in American Life & Culture II
CHINESE 138	Religion in Chinese Culture
ECON 190E	Economics & the Literary Imagination
EDUC 115	Embracing Diversity...
EDUC 210	Social Diversity in Education
EDUC 290A	Contemp.Educ/Socl Issues Native Am.Commun.
EDUC 490H	Weighing Evidence
ENGLISH 204	Introduction to the Asian-American Experience
ENVIRDES 205	Dynamics of Human Habitation
FRENCHST 345	Introduction to Medieval Studies
GERMAN 363	Witches: Myth & Reality
GERMAN 370	19th Century German Thought
GERMAN 379	Contemporary Germany
HISTORY 112	Intro to World Religions
HONORS 292C	Contemporary Readings
HONORS 292D	American Diversity
HONORS 292F	The American Family
HONORS 292J	Ethnicity in Massachusetts
HONORS 292M	Metaphor & Creativity
HONORS 292P	American Portraits
HONORS 292T	America at the Turn of the Century
HONORS 292V	Violence in American Culture
HONORS 292W	America at War: Mil., Ideol, Reprsntatn
HONORS 392F	Public Education in Turmoil...
HONORS 392G	Ghosts that Haunt Us
HONORS 392I	Interpret. In Cross-Cultural Perspective
HONORS 392X	Visions & Revisions: Literary Nonfiction as Social History

JAPANESE 135	Japanese Art & Culture
LABOR 280	Labor & Work in the U.S.
RUSS 250	Russian Culture
RUSS 251	Soviet Culture
UNIV 190I	The World of Ideas
WOMENSST 187	Intro to Women's Studies