DATE: October 9, 2008
TO: Gregg Horowitz, Chair, Committee on Educational Programs (CEP)
FROM: David A. Weintraub, Director, Interdisciplinary Program in the Communication of Science and Technology (CSET)
SUBJECT: revision of rules for the interdisciplinary CSET major

On behalf of the advisory faculty committee for the CSET program, which unanimously endorses this proposal, I am submitting this request to revise the rules for the CSET major.

As background, the CSET faculty have added two courses to our program. These two courses (approved by Faculty Council on October 7), are:

- CSET 289 Directed Study (variable credit: 1-3 hours)
- CSET 290 Project in Science Writing and Communication (variable credit: 1-3 hours)

**We propose to revise the rules for the major in order to provide an incentive for students to take these courses.**

For reference, the current rules for the CSET major require students to complete 48 hours of course work, distributed as follows:

- Required Courses (15 hours),
- Natural Science (9 hours),
- Engineering (9 hours),
- Selected Courses (15 hours).

The 15 hours of Selected Courses are distributed as follows:

- Area I (3 hours): selected from an approved list of Communication Studies courses,
- Area II (6 hours): advanced writing courses in the natural sciences, engineering, and/or English,
- Area III (3 hours): selected from an approved list of science-related courses,
- choice: (3 hours): one three-hour course chosen by the student from courses that meet the Area I, II, III, Natural Science, or Engineering requirements.

We propose to give CSET majors one additional choice in the 'choice' category within Selected Courses. Rather than take one more course from Area I, II, III or from Natural Science or Engineering, we propose that majors could choose to complete

**at least one hour of CSET 289 plus at least one hour of CSET 290.**

Note that students who choose this option would have to complete both CSET 289 and CSET 290 in order to complete the requirements of the major.

Other information requested by the CEP:

- The complete catalog text (excluding the text on the CSET minor, which is unchanged), with deletions and additions noted: attached.
- Impact of the program on staffing, space, computing facilities, and the library: none.
- New costs: none.
- Other departments and programs affected: none.
Communication of Science and Technology

THE study of the communication of science and technology is an interdisciplinary enterprise that draws upon the scientific, engineering, and communication, both oral and written, resources of Vanderbilt University. The program is designed for students who have an interest in science and technology and also are interested in how science and technology are communicated to the larger world outside science, engineering, and medicine. Interested students should contact the director of the program, David A. Weintraub, Department of Physics and Astronomy.

Program of Concentration in Communication of Science and Technology

Students majoring in the communication of science and technology will be expected to complete a core of courses that are essential to understanding communication, as well as a coherent program of courses that provide scientific and engineering background. The major consists of either 47 or 48 hours. In addition, all students are strongly encouraged, but not required, to participate in an internship program that will not provide major hours but will contribute to graduation credit.

Students seeking a second major within the College of Arts and Science may count a maximum of 6 hours of 200-level course work to meet the requirements of both majors.

Required Courses (15 hours)

Communication Studies 237 (Communication of Science, Engineering, and Technology)
English 118W (Introduction to Literary and Cultural Analysis) or 120W (Intermediate Composition) or 200 (Intermediate Nonfiction Writing) or 201 (Advanced Nonfiction Writing)
Communication Studies 201 (Persuasion) or 204 (Organizational and Managerial Communication)
Engineering Science 120 (Introduction to Engineering Problem Solving) or 140 (Introduction to Engineering)
Mathematics 180 (Fundamentals of Probability and Statistics) or 218 (Introduction to Mathematical Statistics) or Economics 150 (Economic Statistics)

Natural Science (9 hours)

Any three 200-level courses (minimum 3 credit hours per course) from at least two disciplines in the natural sciences from those listed for credit as MNS courses within AXLE. (Note that MATH courses cannot be used to fulfill this requirement.) Students would only count nine hours of Natural Science courses toward this part of 48-hour requirement, even if they choose to take three 4-hour courses.

Engineering (9 hours)

Any three courses (minimum 3 credit hours per course) from at least two disciplines in the School of Engineering (excluding BME 201, 240a-b, 241a-b, 272, 273; ChE 233W, 246, 247, 249; CE 200a-b-c, 248a-b, 252a-b; CS 101, 103, 240a-b; EECE 203, 204, 296, 297; ES 101, 103, 248a-b; MSE 209b-c; ME 209a-b-c, 243, 297). Students would only count 9 hours of Engineering courses toward this part of 48-hour requirement, even if they choose to take three 4-hour courses.

Selected Courses (15 hours)

Five courses from those listed below or additional courses taken from the above Science and Engineering lists with a minimum of one from Area I, a minimum of two from Area II, and a minimum of one from Area III.

Area I (one 3-hour course): Communication Studies 210 (Rhetoric and Civic Life), 220 (Rhetoric of the American Experience, 1640-1865), 221 (Rhetoric of the American Experience, 1865 to the present), 222
(Rhetorical Criticism), 241 (Rhetoric of Mass Media), 294 (Special Topics: Communication of Science through the Media)

**Area II (two 3-hour courses):** ENGL 200, 201, or any 200-level W course taught in English, Engineering, or any of the Natural Science departments (note that 'W' courses taught in Engineering or the Natural Science departments do not count toward the 'Engineering' or 'Natural Science' requirements of this major). English 243, 243W (Literature, Science, and Technology) may be repeated once (for a total of up to 6 credits) as long as the specific topics for the course are different each time it is taken. The topic for each offering of the course will be indicated in the official course schedule. Note that a course counted toward Required Courses cannot also be used in satisfaction of the Area II requirement.

**Area III (one 3-hour course):** Astronomy 203 (Theories of the Universe); Communication Studies 223 (Values in Modern Communication), 241 (Rhetoric of Mass Media); History 204 (History of Medicine); Economics 226 (Economic History of the U.S.); Earth and Environmental Sciences 205 (Science, Risk, and Government Policy); Philosophy 244 (Philosophy and the Natural Sciences); Political Science 242 (Political Communication), 253 (Ethics and Public Policy), 255 (Public Policy Problems); Psychology 250 (Control of Human Behavior)

**Choice:** a) One additional 3-hour course from Area I, Area II, Area III, or from the course options that satisfy the Natural Science or Engineering requirements or b) at least 1 credit hour earned from CSET 289 and at least 1 credit hour earned from CSET 290.

**Internships**

Although not included in the required hours for the major, an internship sequence is very strongly recommended.

**Internship:** Interdisciplinary Studies 280a,b,c (1 hour each). The optional off-campus internship program involves work will involve work both on campus and in the national and global arena in such places as NASA, the Discovery Channel, the National Institutes of Health, CNN, and the American Chemical Society. Credit will be given for these internships through Interdisciplinary Studies 280a,b,c (1 hour each); they must be taken as P/F hours, and do not count toward the major.
February 16, 2009

Dear Dean Sloop,

Please find attached a proposal from the Affiliated Faculty for the Communication of Science & Technology program for an Honors program for CSET majors. We have modeled our proposed Honors program on the Honors program for the interdisciplinary MHS major and have closely followed rules and existing guidelines for other Honors programs in the College of Arts & Science.

The catalog text for the Honors program follows.

In parallel with this proposal, we have submitted a proposal for a new course, CSET 296: Honors Thesis, which will be necessary for fulfillment of the proposed Honors requirements. The catalog text for that course, which is nearly identical to many other similar courses in the College, is attached for reference.

Also attached, our proposed Application Form for CSET majors seeking admission to this Honors program. This form is intended for "internal" use by the CSET director and would not appear in the catalog.

Thank you for forwarding this proposal on for review.

Sincerely,

[Signature]
HONORS IN THE COMMUNICATION OF SCIENCE & TECHNOLOGY

CSET Honors is a selective program of individual undergraduate work, supervised by faculty advisors. Honors candidates propose, research, and write a thesis that demonstrates the ability to communicate science, in depth, to a non-scientific audience.

Requirements for Admission

To be admitted to the Honors program in CSET, a student must

- be a CSET major,
- have completed at least 30 of the required hours for the CSET major,
- have completed one semester of CSET 289 and one semester of CSET 290,
  - students who entered Vanderbilt prior to Fall 2008 may substitute two semesters
    of INDS 280a-b-c for CSET 289 and CSET 290,
  - with permission of the program director, students may substitute research
    experience taken for credit within a scientific or engineering program for CSET
    289,
- have a GPA of at least 3.20 in all work previously taken for credit
- have a GPA of at least 3.40 in all courses taken that count toward completion of the
  CSET major.

Requirements for Completion

To earn Honors or Highest Honors in CSET, a student must

- complete the CSET major,
- complete at least one semester of CSET 296,
- present an oral defense of the written CSET 296 thesis before a faculty examination
  committee,
- have a GPA of at least 3.20 in all work taken for credit and 3.40 in all courses that count
  toward the CSET major.

Course of Study

* Interested students may apply in the spring of their junior year or the fall of the senior year. Applicants must have completed CSET 289 (or the equivalent) and must have completed or be enrolled in CSET 290. The application includes a 1-2 page proposal of the planned thesis and the signature of the faculty member who will be the thesis advisor.

* Students in the Honors program sign up for CSET 296 (Honors Thesis). Students may enroll in CSET 296 for one or two semesters, for up to three hours per semester.

* The final thesis must be submitted no later than two weeks before the end of classes in the semester of graduation.

* The oral defense of the thesis will take place one to two weeks after the final thesis is submitted. The examination committee is composed of the thesis supervisor, and two additional faculty members, at least one of whom must be a faculty member affiliated with the CSET program. The oral defense is public and should take approximately one hour, including time for questions from members of the committee. The Faculty examination committee will determine by
majority vote whether the student has earned Honors and whether said student should receive High Honors or Highest Honors. Highest Honors is reserved for students with GPAs in the CSET major and overall above 3.50, whose theses are of near-publication quality, and whose oral defenses are at the highest level.
for reference, the CSET Affiliated Faculty have submitted for approval the following proposal for new course in CSET:

296. **Honors Thesis.** Limited to students admitted to the CSET Honors program. May be repeated for credit one time. FALL, SPRING. [variable: 1-3; may be repeated] Staff. (No AXLE Credit)
HONORS IN THE COMMUNICATION OF SCIENCE & TECHNOLOGY

APPLICATION FORM

Name: ____________________________________________________________

Subject of thesis: ____________________________________________________________________________

GPA in College: __________ GPA in CSET: ____________________________

Name of Honors Advisor: ______________________________________________________________________

Signature of Honors Advisor: ________________________________________________________________
(Your advisor should sign this form AFTER reading and approving the thesis proposal.)

Thesis proposal
Attach a 1-2 page description of your proposed research project. Please address the following questions:

1. What research did you do in CSET 289?

2. What work did you do in communicating science and technology in CSET 290?

3. What work will you do in Honors 296? Will this be an extension of your previous work?

4. What form will your project take?

4. Briefly explain the plans that you and your faculty advisor have made for regular interaction and supervision.

Application Process
1. All applications are due to the director of the Communication of Science & Technology Program no later than the third day of the semester in which a student plans to enroll in CSET 296. Students are strongly encouraged to start this in the Fall of their senior years.

2. The Director of the CSET program will review student applications and make decisions by the end of the drop/add period of the semester in which a student applies. Final approval for admission to Honors in CSET is subject to final review by the Office of the Dean of the College of Arts & Science.