GENERAL EDUCATION COMMITTEE RECOMMENDATION

REQUEST TO REMOVE "AREA C" DESIGNATION AND ADD "AREA D" DESIGNATION TO
HUM 310 – ENGINEERING ETHICS

TO: Amy Parsons, Chair, Curriculum Committee
            Julia Odom, Registrar

FROM: Sarah Senk, Chair, General Education Committee

DATE: October 6, 2020

SUBJECT: Curriculum Change Request: Changes to HUM 310 Engineering Ethics

    I.   Introduction

In late Fall 2019 the Committee reviewed ET's "Engineering Ethics" Course and voted that it does **not** meet the criteria for designation as an Area C2 course but that it does meet the criteria for designation as an Area D course. On January 16, 2020, I presented the results of these committee votes at the General Senate meeting.

But it recently came to my attention that the formal paperwork was never submitted, and the change was not formalized in our course catalog. I take full responsibility as Committee Chair for this misstep.

The General Education Committee met last Thursday, October 6, 2020 to discuss the matter. In attendance were: Sarah Senk (Chair), Ryan Dudley Wade, Kitty Luce, Kathryn Marocchino, Tom Oppenheim, Julie Simons, Michael Strange, Cynthia Trevisan, Maggie Ward (as a proxy for Elizabeth McNie), as well as non-voting member Julia Odom and student representative Josh Barlas. Non-voting member Graham Benton was absent due to a conflict. Voting member Joshua Shackman was absent.

The committee agreed that the votes from Fall 2019 should stand, and that we should alert you as Curriculum Committee chair to process the informal course name change from "HUM 310 – Engineering Ethics" to "ENG 310 – Engineering Ethics."

Below is a summary of our discussion and record of the votes, along with the Informal Curriculum Change Request forms.

The Informal CCR form notes that "[f]or a new GE course or GE change, the CCR must be approved by the GE Committee prior to submission and a GE Chair Questionnaire form must be completed." As you know, since Spring 2020 I have replaced the ludicrously vague "GE Chair Questionnaire Form" (which someone made by whiting out "department" on the Department Chair questionnaire form) with these formal reports, which contain much more detail and will hopefully do the work of reinforcing our institutional memory.

    II.   Vote to Remove Area C Classification from Engineering Ethics

On Wednesday, November 20, 2019 the General Education Committee met to discuss a proposal initiated by Colin Dewey to remove Area C classification from Engineering Ethics. Nine members were in

attendance; one was absent. **The committee voted 8-0-1 (8 in favor, none opposed, Chair abstained) to REMOVE Area C classification from HUM 310 – Engineering Ethics.**

The committee reviewed the Area C GELOs as well as the HUM 310 course description, outcomes, and complete syllabus and determined that the course failed to meet any of the Area C learning outcomes, nor did it accord with the description of Area C courses in EO1100, which states that "[students] will respond subjectively as well as objectively to aesthetic experiences and will develop an understanding of the integrity of both emotional and intellectual responses" and "will develop a better understanding of the interrelationship between the self and the creative arts and of the humanities in a variety of cultures."

The course description mentions "moral reasoning and ethical theories," but the course textbook is an introduction to *Ethics, Technology, and Engineering* whose chapters focus things like "engineers versus managers" and "the social context of technological development." The chapter on Normative Ethics summarizes the work of some major philosophers taught in EGL 400 – Ethics, but students are not reading the primary philosophical texts, and the focus of the book is about *applying* the summarized concepts to case studies (for example, textbook Section 3.7.4: Applying utilitarianism to the Ford Pinto case). Accordingly, students fail to meet one of the criteria listed in the CSU's "Guiding Notes for General Education Course Reviewers;" they do **not** "learn to analyze and appreciate works of philosophical and cultural importance since they are not reading the primary works of major philosophers." Instead they are reading brief summaries and applying them to "the social context of technological development."

The course goals and student learning objectives state that students will "examine the ethical challenges that confront engineers working within organizations," and "consider issues such as the social responsibility of engineers, disclosure, whistle-blowing, professionalism, global ethics, and risk-assessment." As the ET representative explained at the meeting, the primary focus of the course is the analysis of case studies.

The topics listed on the syllabus focus entirely on applications to engineering, including units on fatal flaws in air/spacecraft, vehicles, and structures; the moral justification of whistleblowing; case studies in land surveying; "Engineering as Social Experimentation;" the Professional Society Code of Ethics, Business and Professional Ethics; law suits regarding water pollution, case studies about environmental stewardship; and sustainable development goals.

The committee noted that most of the Student Learning Outcomes (SLO) were not assessable and should be revised to better align with the course description, course goals, and objectives. [See Part IV of this report for specific suggestions.]

The committee reviewed the EO1100 description of Area C, which includes arts, literature, philosophy, and foreign languages. The committee also compared the Engineering Ethics Syllabus to Julianne Chisholm's HUM 400 – Ethics syllabus (another ethics class with Area C classification). The committee discussed whether having "ethics" in the title was sufficient for counting as a philosophy class and discussed classifications of applied ethics classes at other universities. The committee noted that it was theoretically possible for an applied ethics class to satisfy the Area C requirements *if* the course focused *primarily* on the analysis of primary source texts in philosophy, but that Engineering Ethics did not do so. There was some discussion about how broadly one could interpret the EO1100 Area C description about "works of the human imagination" or the CSU Guiding Notes description of "works of philosophical and cultural importance" and whether airplanes, vehicles, and oil rigs were not also "works of the human imagination" like novels, poems, paintings, and philosophical texts. Ultimately the committee agreed unanimously that this was a stretch, and that in addition to failing to meet the criteria in EO1100 *or* the CSU/UC Guidelines for GE Reviewers, the course also failed to satisfy any of our campus GELOs for Area C.

The committee noted that "the Area D description seemed to fit this course much more closely given the focus on case studies and social impact." Non-voting member AVP Benton concurred.

Before the committee voted, ET Rep Mike Strange expressed concern about the impact on the Engineering departments. He noted "I agree with the arguments I'm hearing" but said that "Engineering doesn't feel comfortable losing the Area C designation without confirming that we can get Area D designation." McNie pointed out that it would be inappropriate for the committee to vote on Area D now since we had not yet held a first reading. The committee agreed to hold an additional meeting on December 10 to discuss designating a newly named "ENG 310 – Engineering Ethics" as an Area D course.

The vote to remove the Area C designation was conducted at the end of the discussion and the vote to decide on whether or not Area D designation was appropriate was tabled until the following meeting.

III.   Vote to Add Area D Classification to Engineering Ethics

During the November 20 meeting the committee noted that "the Area D description seemed to fit [Engineering Ethics] much more closely given the focus on case studies and social impact."

On Wednesday, December 10, 2019 the General Education Committee met to discuss a proposal initiated in October 2019 by Tom Oppenheim and Mike Strange to add Area D classification to Engineering Ethics. Eight members were in attendance (two via remote connection); two were absent. **The committee voted 7-0-1 (7 in favor, none opposed, Chair abstained) to APPROVE HUM 310 – Engineering Ethics for classification as an Upper Division Area D General Education Course.**

The committee reviewed the EO1100 description of Area D – courses "dealing with human social, political and economic institutions and behavior" that show how "human social, political and economic institutions and behavior are inextricably interwoven."

The committee reviewed the Engineering Ethics course goals and student learning objectives, which (as observed at the November 20 meeting) state that students will "examine the ethical challenges that confront engineers working within organizations," and "consider issues such as the social responsibility of engineers, disclosure, whistle-blowing, professionalism, global ethics, and risk-assessment." The committee agreed that the analysis of different case studies in different settings and contexts (including legal, environmental, and social) fit with the EO1100 Area D description. The ET rep confirmed that the course covers the impact of engineering designs and disasters on "political and economic institutions and behavior"(EO1100). Accordingly, the committee agreed that the course satisfied Cal Maritime's GELO 10 and 11. We discussed at length whether the course met GELO 12 ("explore the principles, methodologies, value systems and ethics employed in social scientific inquiry.") We asked GSMA representative Kate Sammler and Area D representative Bets McNie – both trained social scientists – whether the outcome was met. Sammler noted that many GSMA courses currently classified as Area D did not meet that outcome either. The committee discussed whether or not that outcome should be revised; whether all Area D courses *must* feature qualitative research; or whether it was allowable to say that a course must meet two out of three GELOs (as is the case with Area C).

The committee also discussed the EO1100 caveat that "Courses that emphasize skills development and professional preparation are excluded from Area D," but determined that while Engineering Ethics includes a unit on professional preparation, that is not by any means the primary focus of the course. The committee noted that most other Area D courses make mention of professional preparation, too, but as long as the course is not primarily "skills-based" it fits the description.

Finally, the committee discussed impact on other departments. Due to their non-compliance with EO1100 the Engineering majors take 9 units of Area C and 9 units of Area D. (And the November 20 vote stripping Engineering Ethics of Area C designation meant that they now have only 6 units of Area C.) GSMA Representative Kate Sammler agreed that there would negligible impact on the GSMA department if Engineering Ethnics was counted as Area D after ME Representative Oppenheim pointed out that ME majors do not take an upper division Area D elective now. In terms of units there would be no net gain nor loss for departments offering Area D courses.

The vote was conducted at the end of the discussion.

IV.   Recommendations Regarding "Engineering Ethics" Learning Outcomes

The committee noted in both meetings that the current Student Learning Outcomes (SLOs) were not assessable and did not seem to correspond well with the course description or syllabus content. The SLOs included an outcome about "study[ing] the fundamental structure of human personhood," although it was unclear whether this outcome was met in the course. The other outcomes seemed to span a variety of GE subject areas, but two out of five focused on "skills development." Accordingly, the committee recommends that the instructor/department work with assessment experts on campus to rewrite the outcomes to replace vague statements (eg. the SLOs beginning with "to improve," "to understand," and "to study") with measurable learning outcomes. Measurable outcomes from similar courses at other universities include outcomes like "describe the engineering code of ethics," "*identify* ethical issues in the engineering profession," "recognize ethnical responsibilities of engineers," "propose policy relating to ethical questions in engineering," and/or "analyze the impact of engineering solutions in economic, environmental, and societal contexts."

For minimal disruption, the current instructor could also choose to adapt phrases from his course description and goals/objectives paragraphs on the existing syllabus accordingly (these suggestions are based on the text highlighted in yellow above):
-   Identify the ethical challenges facing engineers working within organizations
-   Describe the social responsibility of engineers
-   Explain the social impact of engineering design and disasters
-   Apply ethical concepts to the discipline and practice of engineering
-   Review strategies for dealing with ethical issues students will likely face in the workplace

INFORMAL CURRICULUM CHANGE REQUEST

This form will be used to make required changes to curriculums that do not need Curriculum Committee approval. Please forward the completed form to Pat Harper at least three weeks prior to registration.

SUBMITTAL INFORMATION

SUBMITTED BY: Colin Dewey   **DATE:** October 25, 2019

DEPARTMENT: Culture and Communication

REGISTRAR INFORMATION

CURRENT COURSE SUBJECT & NUMBER: HUM310
PROPOSED COURSE SUBJECT & NUMBER: ENG310

CURRENT COURSE TITLE: Engineering Ethics
PROPOSED COURSE TITLE: Engineering Ethics [no change]
PROPOSED ABBREVIATED COURSE TITLE (30 Characters Max):

CURRENT CSU GENERAL EDUCATION PATTERN: Area C2 Humanities UD
PROPOSED CSU GENERAL EDUCATION PATTERN: N/A
(Changes to the GE pattern must be approved by the GE Committee prior to submission and a GE Chair Questionnaire form must be completed.)

CURRICULUM SHEET(S) TO BE CHANGED (Major(s) & Year(s)): FET, MET, ME (all) class of 2020, 2021, 2022.

MOVE COURSE(S) FROM WHAT SEMESTER(S):
(If more than two courses will be moved, please attach a curriculum sheet that shows all the moves.)

MOVE COURSE(S) TO WHAT SEMESTER(S):

SUBSTITUTE COURSE:

WILL THIS COURSE BE A COURSE IN THE MAJOR?   YES ☐   NO ☐

WILL THIS COURSE BE AN STCW COURSE?   YES ☐   NO ☐

COMMENTS/OTHER CHANGES:

For changes to prerequisites, course descriptions, units, etc., Curriculum Committee approval is required.

APPROVALS

_____	_____	_____	_____
C. C. Chair	**Department Chair**	**Dean**	**Added to Smartsheet**

_____	_____	_____	_____
Date Received	**Date Received**	**Date Received**	**Date Entered**

CURRICULUM CHANGE REQUEST No. __CCR_____(for Curr. Comm. Use)

Page 1 – Interactive Data and Approval Page - Basic course information

SUBMITTAL INFORMATION – **CLICK ON EACH FIELD. SOME FIELDS ARE DROP-DOWN MENUS.**

SUBMITTED BY: Dinesh Pinisetty   **DATE:** October 6, 2020

DEPARTMENT: Engineering Technology   **COURSE COORDINATOR:** Michael Kazek

MAJOR OR COURSE OF STUDY: FET, MET, ME

REGISTRAR INFORMATION   *(If the course has a lab component, a separate CCR must be completed for the lab.)

CURRENT COURSE SUBJECT & NUMBER: HUM 310
CURRENT COURSE TITLE: Engineering Ethics

PROPOSED COURSE SUBJECT & NUMBER: (Number MUST be one which has never been used before) ENG 310
PROPOSED COURSE TITLE: Engineering Ethics
PROPOSED ABBREVIATED COURSE TITLE (30 Characters Max) ENG ETHICS

CURRENT COURSE UNITS: Lecture **3.0** Lab*___ Total **3.0** **CURRENT COURSE HOURS**: Lecture **3.0** Lab*___Total **3.0**
PROPOSED COURSE UNITS: Lecture **3.0** Lab*___ Total **3.0** **PROPOSED COURSE HOURS**: Lecture **3.0** Lab*___Total **3**

WTU VALUE OF COURSE: 3   **COURSE IN THE MAJOR:** YES ☒   NO ☐

CURRENT GRADING BASIS: Graded   **PROPOSED GRADING BASIS: Graded**

FINAL EXAM: (Course will be added to final exam schedule)   YES ☐   NO ☒

CLASS LEVEL: Lower Division ☐   Upper Division ☒   Graduate ☐

HEGIS NUMBER/DISCIPLINE: A-D   09011 Engineering   L-M   N-Z

CSU GENERAL EDUCATION PATTERN/S: Area D Social Sciences UD   and   Not Applicable
(For a new GE course or a GE change, the CCR must be approved by the GE Committee prior to submission and a GE Dept. Chair Questionnaire form must be completed.)

COMMUNITY SERVICE LEARNING COURSE: YES ☐   NO ☒

STCW COURSE: YES ☐   NO ☒   (If yes, the CCR must be approved by the STCW Committee prior to submission and a STCW Dept. Chair Questionnaire form must be completed.)   **SEATIME EQUIVALENCY:** YES ☐   NO ☒

CS NUMBER: (recommended class type/size): C2 Lecture Discussion = 40 PAX

SPACE TYPE: 0 Not Applicable

NEW COURSE ☐   **REVISION OF AN EXISTING COURSE** ☒   **OTHER** ☐ Click or tap here to enter text.

SEMESTER OF IMPLEMENTATION: SP2021 **STUDENTS WHO WILL BE AFFECTED:** All Students (Entering Year)

GRADUATION REQUIREMENT ☒   **ELECTIVE** ☐   **(**see page 2 instructions)

PREREQUISITES: N/A   **CO-REQUISITES**: N/A
POST-REQUISITES: N/A   **COURSES FOR WHICH THIS COURSE IS A PREREQUISITE**: N/A

APPROVALS

_____	_____	_____
Curriculum Committee Chair	**Dean**	**Provost/VPAA**
_____	_____	_____
Date Received	**Date Received**	**Date Received**

CURRICULUM CHANGE REQUEST
Page 2 - Instructions for submitting a course for approval.

A well-documented course proposal must include most of, if not all of, the following components. Please attach the complete course proposal to the page 1 cover for submittal to the Curriculum Committee.

PURPOSE OF THIS CURRICULUM CHANGE REQUEST
(New course, revise course description, revise prerequisites, change method of instruction, change grading basis, STCW changes, etc.
Designation as GE Area D - UD Elective

Existing – No Designation

Revised – GE Area D - UD Elective

COURSE DESCRIPTION (See "Style for Course Descriptions in a Course Catalog" document on Curriculum Committee webpage for samples of course descriptions.)
(As it will appear in the course catalog.)
Unchanged. Please see attached syllabus.

COURSE GOALS
(Describe the main goals and objectives of the course.)
Unchanged. Please see attached syllabus.

COURSE COMPETENCIES
(Describe the specific skills that are the intended outcome of the course.)
Unchanged. Please see attached syllabus.

REQUIRED TEXT
(Include supplementary and suggested reading.)
Unchanged. Please see attached syllabus.

GRADING CRITERIA AND EVALUATION
(Describe the means for grade determination and any relevant weighting schemes, etc.)
Unchanged. Please see attached syllabus.

COURSE REQUIREMENTS
(Describe the method of instruction, general assignments, readings, written case analyses, literature searches, hands-on learning, telephone conferences, computer communication, computer applications, examinations, engineering design projects.)
Unchanged. Please see attached syllabus.

GRADUATION REQUIREMENT
(If the course is required for graduation, address how other courses in the required curriculum are affected.)
Unchanged. Please see attached syllabus.

FISCAL IMPLICATIONS
(Please indicate the fiscal implications of this course. If the course affects the teaching loads or FTEF/FTES of other departments, include a department chair questionnaire form from that department.)
Unchanged.

COURSE ASSESSMENT PLAN
(A course assessment plan consistent with the department assessment and campus assessment programs must be attached.)
Unchanged. Please see attached syllabus.

ATI COMPLIANCE
All courses must be compliant with the CSU Board of Trustees Policy on Disability Support and Accommodations – Executive Order No. 926 and the Chancellor's Accessible Technologies Initiative (ATI). The course coordinator and instructor must complete a 50m 45s Lynda.com online course, which can be accessed through the following link on the SEAS Disability Services Information for Faculty webpage: https://www.csum.edu/web/seas/information-for-faculty. On the right side of the page, under Video Tutorial Links, Resources, select How to Make Accessible Learning (video). Select "Sign In" and on the next page select "Sign in with your organization portal." Type in csum.edu. Enter your Cal Maritime Username and Password to access the video. Please email your completion certificate (as a pdf) to Pat Harper, Curriculum Committee Secretary, at pharper@csum.edu and attach a copy to this CCR.

COMMENTS/SPECIAL INSTRUCTIONS
(Describe special needs such as room requirements, equipment, computer facilities or programs, library assets.)