General Education Program Review 2019-2020

Report Prepared and Submitted by General Education Committee Chair, Sarah Senk

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PREFACE

Cal Maritime has an Academic Program Review Guide (revised August 2016), which focuses primarily on major program reviews, although it briefly mentions **general education**. I have tried my best to adhere to the guide, which specify that there are three "essential features" of program assessment:

1. Evidence-Based Claims and Decision-Making. Any conclusions drawn within a self-study report, or decisions made as a result of a program review are to be informed by evidence. Qualitative and/or quantitative evidence should be used to support claims about a program's relative strengths and weaknesses as opposed to analyses that are merely descriptive, anecdotal, and/or based on advocacy.

2. Assessment of Student Learning Outcomes. Program reviews need to incorporate an analysis of the assessment of student learning. This would include an evaluation of how well a program's student body, in the aggregate, is achieving the intended student learning outcomes. This, then, also includes an attention to how the students within the program can be assessed in relation to general education and institution-wide student learning outcomes.

3. Integration of Results with Budgeting and Strategic Planning. The results of program review are to be used for follow-up planning and budgeting at several decision-making levels across Cal Maritime: from the department to the school to the division and to the institution as a whole.

However, I include the following caveats regarding these three criteria:

1. Currently we have no systematic, holistic practice of evidence-gathering to assess the strengths and weaknesses of the General Education program. Accordingly, much of the self-study is descriptive. I realize this is at odds with our own institutional review guide recommendations, but thought it was important to *describe* the current status of the program (including information about recent revisions to the CSU General Education Breadth requirements and their impact on Cal Maritime; General Education committee policy and recent changes to the curriculum review process; a description of existing learning outcomes and alignment with ILOs, PLOs, and SLOs in individual GE courses; program compliance; and existing assessment efforts) so that we as an institution understand *where we are* before imagining *where we want to be*. I have also consulted external guides to General Education program review and incorporated elements that I hope will guide more comprehensive review practices in the future. **As sole author of this report, all recommendations are my own and should be reviewed by the GE Committee, Faculty Senate, and other relevant parties before implementation.**

2. The 2014-2015 Program Review Report did *not* include General Education Program Learning Outcomes, although it made reference to statements in the "Guiding Notes of CSU General Education Course Reviewers" and Title 5 of the California Code of Regulations. The report included a description of nascent assessment efforts on the part of IWAC as well as the program reviews from the Department of Science and Mathematics Program Reviews and the [then] newly-created Department of Culture and Communication. In what follows I describe steps the university has taken to put in place an assessment infrastructure since the last program review. I also include relevant IWAC reports for the GE outcomes that overlap with Institution-Wide ones. But we do not yet have a comprehensive GE assessment structure in place and therefore cannot yet evaluate how well

the aggregate student body is achieving all of the GELOs. The primary aim of this report (vis a vis assessment) is to document steps taken since the last review and to identify what existing structures could be modified to create a more robust and systematic process for General Education Assessment.

3. Budget data is not shared with the General Education Committee, so I do not discuss follow-up planning from a budgetary perspective. However, I will identify potential areas of affiliation between the GE program and the Strategic Plan.

As I mentioned in Caveat 1 above, I have partially amended the template for this report based on sections of Andrea Leskes and Ross Miller's *General Education: A Self Study Guide for Review and Assessment* published by the Association of American Colleges and Universities. In the future, the GE Committee may wish to review this document and create our own Program Review Guide that might offer a more appropriate platform for continuous improvement, set clearer expectations for the review, and include more voices in the process.

Leskes and Miller recommend that at the start of a review institutions clarify the nature of the mandate for review, how leaders of the (usually a group or a committee) are appointed and to whom they report, whether "the process reflect[s] our campus's culture or way of doing business," and whether or not the approach is effective. While I believe we should imagine a more collaborative process for future reviews, the following describes our current process:

- At Cal Maritime we have an internal mandate to conduct a regular review of the General Education Program.
- Past practice has been to assign this work to the General Education Committee Chair, who is allocated 3 units of reassigned time during the year of the review.
- In at least the past two cycles at Cal Maritime, the author of the review has reported to AVP Graham Benton and has been appointed by default by virtue of his or her position as GE Committee Chair. The institution may wish to evaluate whether this is the most effective way of approaching the review process. I have included in my recommendations at the end of this document some suggestions about including a broader range of "voices" in the program review, even if they continue to be authored by individuals.

Leskes and Miller include a long list of additional steps they deem crucial to the GE Program Review process, some of which I have undertaken in the report (notably **determining learning goals and outcomes**, **reviewing the curricular structure**, and **planning for assessment**), and some of which I hope we will use to guide future reviews.

For instance, Leskes and Miller recommend that program reviewers "evaluate pedagogical methods," including reviewing classroom practice and faculty expertise. As GE Committee Chair, I have been told that we are not allowed to consider faculty expertise when considering course approvals. (The argument is that we approve *courses*, not instructors, because we cannot account for instructor turnover, among other things.) Nevertheless, I hope that in the future we can commit to promoting best practices in our General Education classes by reviewing if "the pedagogical methods we use in general education intentionally chosen to help students achieve the desired goals and outcomes," if "our methods foster active engagement," and whether or not our faculty are trained to "teach to diverse groups of students with a variety of cultural experiences and levels of

preparation"(10). Leskes and Miller also recommend that program reviews "examine the student perspective," something we have not yet done at Cal Maritime.

Finally, accordance with our own Faculty Senate's commitment to building a more coherent infrastructure, I hope that this report will generate fruitful discussion about how we can best implement changes. Leskes and Miller recommend that reviewers being the process of implementing change by asking questions like "Who will oversee implementation?" and "Will responsibility for implementation be centralized or assigned to academic departments"(13)? I have included in my list of recommendations a tentative timetable, but the Faculty Senate will need to work with the Administration and IWAC to finalize the process and secure the necessary resources.

I conclude with a note about the timing of this report, which I began in Fall 2019 and planned to submit in Spring 2020. Due to the COVID-19 pandemic efforts we made as an institution toward departmental compliance were stalled as instructors and Chairs were consumed with the sudden switch to online modalities. My conclusion of the report took an additional semester, during which EO 1100 was revised again. This report *includes* information about that recent December 2020 revision.

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Chair, General Education Committee

Submitted on Monday, January 11, 2021

I. GE Program Mission and History

1. Summary of Title 5 and CSU EO 1100 Breadth Requirements

Cal Maritime's General Education Breadth Requirements [**Appendix A**] are guided by systemwide provisions described in Title 5, Division V, Chapter 1, Subchapter 2 (Sections 40400 through 40411) of the California Code of Regulations and EO 1100. While each CSU campus has some autonomy regarding the development of their individual General Education courses and learning outcomes, the framework is the same across the system.

Article 3, Section 1 of EO1100 describes the premise of CSU General Education Breadth Requirements as follows: "CSU GE requirements have been designed to complement the major program and electives completed by each baccalaureate candidate, to assure that graduates have made noteworthy progress toward becoming truly educated persons. These requirements are designed to provide the knowledge, skills, experiences, and perspectives that will enable CSU students to expand their capacities to take part in a wide range of human interests and activities; to confront personal, cultural, moral, and social problems that are an inevitable part of human life; and to cultivate both the requisite skills and enthusiasm for lifelong learning. Faculty are encouraged to assist students in making connections among disciplines to achieve coherence in the undergraduate educational experience."

2. Revisions to EO1100 Since 2014-2015

Since the last General Education Program Review, EO1100 has been revised twice: first on August 23, 2017 and again on December 3, 2020. The August 2017 policy became effective in Fall 2018 and the recent revising will become effective in Fall 2021.

2017 Revision

According to the FAQ on the Revisions to EO 1100 Revised August 23, 2017 [**Appendix B**] the 2017 revision included several "student-supportive policy changes" meant to "facilitate efficient degree completion systemwide," and "ensure efficient completion of lower-division certification and transfer from CCC campuses"(1). Notably, the policy permitted "certification of lower-division GE Areas satisfactorily completed at any CSU campus" to [ensure] that students shall not be held to any additional lower-division GE requirements, mirroring the certification process between CCC and CSU campuses"(2). The following list from the FAQ summarizes the 2017 changes:

- Changes the term "CSU GE pathways" to "CSU GE patterns."
- Sets the required semester units for GE Breadth at 48 as both a minimum and maximum, while allowing 49 semester units to reflect practice of requiring a 4 semester unit lecture/lab course or a 1 semester-unit lab course on some campuses. Required laboratory units have often not appeared in GE unit totals.
- Establishes minimum C- grade requirements for oral communication, written communication, critical thinking and mathematics/quantitative reasoning, per Title 5.
- Clarifies when students should enroll in upper-division GE courses.

- Clarifies that the 9 semester units required at the upper division must be taken in Areas B, C, and D. Some campuses currently require upper-division GE in other areas, which can cause students to take more units than should be the case. 8 Updated 8/31/17
- Requires that 9 semester units of upper-division GE shall be taken in the CSU.
- Institutionalizes double counting for efficient degree completion. Major courses and campus-wide required courses that are approved for GE credit shall also fulfill (double count for) the GE requirement.
- Campuses are encouraged to allow the double counting of the 6 semester units of American Institutions with GE Area D Social Science.
- Specifies binding completion. Once a GE requirement is satisfied, students shall not be required to satisfy it again, even if the student were to change campus or major.
- Clarifies that GE courses may be taught in all modalities (e.g., face-to-face, online, and hybrid) formats.
- Removes the long list of LEAP information, replaced with a link. (formerly 3.4 in previous EO version) Removes the section on entry-level skills and remediation, as this policy exclusively addresses general education and not admission or remediation requirements.
- Removes the Intermediate Algebra prerequisite from math/quantitative reasoning Subarea B4 and adds language describing this requirement. Sample course titles are given as examples of the expanded vision for satisfying the mathematics/quantitative reasoning requirement.
- Specifies additional appropriate course content for Area E (e.g., information literacy and student success strategies), while personal finance is removed from this Area.
- Adds information regarding GE for students who earn ADTs.
- Clarifies reciprocity among CSU campuses for GE courses.
- Requires campuses to provide sufficient sections of GE Subarea A2 written communication and B4 mathematics/quantitative reasoning courses to support completion of these requirements within the first year of freshman enrollment.
- Adds requirement to remove GE status for GE courses not offered within a five-year period.

[See Appendix C for the original table and relevant policy sections.]

Under the 2017 revision of EO 1100, students had to fulfill 48 units of General Education requirements (39 lower-division and 9 upper-division semester units) across five GE Areas:

- Area A: English Language Communication and Critical Thinking
  - 9 lower-division semester units including one course in each of three Subareas: Oral Communication (A1), Written Communication (A2), and Critical Thinking (A3)
- Area B: Scientific Inquiry and Quantitative Reasoning
  - 12 semester units including one course in each Subarea: Physical Science (B1), Life Science (B2), and Mathematics/Quantitative Reasoning (B4) plus a Laboratory Activity (B3) affiliated with B1 or B2 and 3, and one upper-division course
- Area C: Arts and Humanities
  - 12 semester units including a minimum of one lower-division course in each Subarea: Arts (C1) and Humanities (C2), one additional lower division course in either Subarea, and one upper-division course
- Area D: Social Sciences
  - 12 semester units across at least two different social science disciplines, including 3 semester units at the upper-division level
- Area E: Lifelong Learning (3 lower-division semester units)
  - 3 semester units lower-division

2020 Revision

The 2017 revision did *not* include a cultural diversity or ethnic studies course as part of the GE Breadth requirements and in Fall 2020 EO 1100 was revised again after the passage of Assembly Bill 1460 in August 2020 to include a new Subject Area – Area F (Ethnic Studies) to fulfill Education Code Section 89032.

Below are the requirements that take effect in Fall 2021 (with changes from the 2017 revision in bold font):

- Area A: English Language Communication and Critical Thinking
  - 9 lower-division semester units including one course in each of three Subareas: Oral Communication (A1), Written Communication (A2), and Critical Thinking (A3)
- Area B: Scientific Inquiry and Quantitative Reasoning
  - 12 semester units including one course in each Subarea: Physical Science (B1), Life Science (B2), and Mathematics/Quantitative Reasoning (B4) plus a Laboratory Activity (B3) affiliated with B1 or B2 and 3, and one upper-division course
- Area C: Arts and Humanities
  - 12 semester units including a minimum of one lower-division course in each Subarea: Arts (C1) and Humanities (C2), one additional lower division course in either Subarea, and one upper-division course
- Area D: Social Sciences
  - **9 semester units including 6 lower-division semester units** and 3 upper-division semester units, including courses from at least two different social science disciplines
- Area E: Lifelong Learning (3 lower-division semester units)
  - 3 semester units lower-division
- **Area F: Ethnic Studies**
  - **3 semester units lower-division**

While each individual campus can determine their own learning outcomes and competencies for Subject Areas A-E, the Ethnic Studies requirement must meet three out of five core competencies:

1. Analyze and articulate concepts such as race and racism, racialization, ethnicity, equity, ethno-centrism, eurocentrism, white supremacy, self-determination, liberation, decolonization, sovereignty, imperialism, settler colonialism, and anti-racism as analyzed in any one or more of the following: Native American Studies, African American Studies, Asian American Studies, and Latina and Latino American Studies.
2. Apply theory and knowledge produced by Native American, African American, Asian American, and/or Latina and Latino American communities to describe the critical events, histories, cultures, intellectual traditions, contributions, lived-experiences and social struggles of those groups with a particular emphasis on agency and group-affirmation.
3. Critically analyze the intersection of race and racism as they relate to class, gender, sexuality, religion, spirituality, national origin, immigration status, ability, tribal citizenship, sovereignty, language, and/or age in Native American, African American, Asian American, and/or Latina and Latino American communities.
4. Critically review how struggle, resistance, racial and social justice, solidarity, and liberation, as experienced and enacted by Native Americans, African Americans, Asian Americans and/or Latina and Latino Americans are relevant to current and structural issues such as communal, national, international, and transnational politics as, for example, in immigration, reparations, settler-colonialism, multiculturalism, language policies.

5. Describe and actively engage with anti-racist and anti-colonial issues and the practices and movements in Native American, African American, Asian American and/or Latina and Latino communities and a just and equitable society.

There are no course prefix requirements for courses classified as Area A-E, but EO 1100 mandates that to be approved for the Ethnic Studies requirement, "courses shall have the following course prefixes: African American, Asian American, Latina/o American or Native American Studies. Similar course prefixes (e.g., Pan-African Studies, American Indian Studies, Chicana/o Studies, Ethnic Studies) shall also meet this requirement."

3. The Impact of EO1100 (Revised) on Cal Maritime

The 2017 Revision of E0 1100 catalyzed a flurry of changes to the oversight of the General Education Program at Cal Maritime including: the creation of a Standing Senate Committee overseeing General Education, changes to committee membership and responsibilities, as well as campus-wide efforts to bring major departments into compliance, to create a culture of assessment, and most recently, to bolster the rigor of the curriculum approval process.

a) Creation of Senate Standing Committee for General Education

Early in the Fall 2017 semester the existing committee, which was staffed by a random assortment of faculty volunteers was replaced by a newly constituted Senate Standing Committee. In September 2017, then Senate Chair Tom Nordenholz sent out a call for service for the new committee, which was initially constituted by volunteers with experience teaching General Education courses. Membership included 3 Faculty from Science and Math, 4 Faculty from Culture and Communication, 2 from GSMA and IBL, and one from the Library.

In a Memo to Dr. Julie Chisholm, Acting Chair of the General Education Committee, dated December 11, 2017, AVPAA Graham Benton outlined "the most pressing issues" the General Education Committee needed to tackle:

- "The Curriculum Committee By-Laws. The Curriculum Committee functions as a standing committee of the Academic Senate, but there is confusion as to which "set" of by-laws governs the committee. There appears to be two different versions of AS 500, one which has specific roles and responsibilities assigned to the Gen Ed Committee and one which does not. Additionally, there was momentum to draft/revise Gen Ed Committee by-laws during the Fall 2017 semester. *I recommend that this be taken care of as soon as possible:* with no binding document to authorize the roles and responsibilities (let alone outline membership and chair election procedures) of this committee, there will be very little traction.
- Align Gen Ed efforts with those of Executive Order 1100. One of the primary objectives of the Winter 2018 Faculty Retreat is to redesign ALL academic programs to conform (as close as possible) to the new language of EO 1100. I recommend that the Gen Ed committee play a prominent role in ensuring the integrity of programming, while acknowledging the exceptions granted to some of our high-unit majors.
- The Gen Ed website. As of now, the only presence on the campus website is language from the catalog. The GE site could be much more robust, and include resources for faculty and students.
- General Education Student Learning Outcomes. There were a series of GELSOs approved last year, but there is some discrepancy in how these should be aligned with (or identical to) those program outcomes of the departments of Culture and Communication and Sciences and Mathematics.

- WASC Core Competencies. For the WASC Self-Study to be completed this spring, a section on how Cal Maritime assesses its "core competencies" (Written and Oral Communication, Quantitative Reasoning, and Critical Thinking) must be completed. Input from the Gen Ed Committee is paramount for a thorough examination of these outcomes."

  [Graham Benton, Memo to Dr. Julie Chisholm, Acting Chair of the General Education Committee RE: Revision/ Approval of Gen Ed By-Laws and Action Items for Spring 2018, December 11, 2017]

By December 2017 the committee finalized preliminary bylaws governing responsibilities and membership. The Committee's charge included "oversight of General Education policy making appropriate recommendations concerning implementation, conduct, and evaluation of the General Education curriculum including its articulation to the Title V requirements and its alignment with CSU Executive Order 1100."

Responsibilities included the following:

- liaise with the Curriculum Committee on all matters pertaining to general education
- review, evaluate, and approve all policies and procedures related to the General Education requirements
- review content, outcomes, criteria and standards of the General Education requirements based on continuing analysis of the vision, objectives and mission of the University and the needs of its students
- evaluate and vote whether a proposed course meets a GE area. The General Education Committee's transmits its decision in writing to the Curriculum Committee. For new courses requesting GE status, approval from the General Education Committee must come before the submission of the CCR to the Curriculum Committee
- coordinate and consult among curricular areas of the University in order to assure continuous renewal and quality of the General Education curriculum
- ensure compliance with all state, federal, WASC, and CSU requirements
- draft and submit a General Education Program Review on a cyclical basis
- develop, review and approve policies and procedures used by the General Education Committee in course certification
- responsible for decisions that affect the articulation of Cal Maritime GE requirements with the California General Education Requirements as defined in Title V, and with California Community Colleges and other CSU campuses
- act as an appeals body to hear and decide appeals of GE decisions and procedures by students and faculty
- consider and initiate proposals for revisions to the GE program, making recommendations to the Academic Senate as appropriate

Membership included one faculty member representing at each of the five Subject Areas of General Education under Executive Order 1100, one member of every academic department, if that department does not have representation via subject area representation, one faculty representative from the Library, one representative from the Registrar's Office (non-voting), and one representative from the Provost's Office (non-voting).

The initial bylaws draft specified that "Faculty Members are appointed by the Senate Executive Committee from nominations from by the department which offers the greatest number of courses in each area. Thus, for Areas A and C this would be the Department of Culture and Communication; for Area B, the Department of Sciences and Mathematics; for Area D, the

Department of Global Studies and Maritime Affairs. The Chair of the General Education Committee shall be determined by an election conducted amongst the members of the committee. Non-voting representatives are appointed from their respective offices. Representatives to the General Education Committee may be replaced at the discretion of the individual departments or entities represented on the committee."

In practice, however, these initial membership guidelines presented some problems: 1) they excluded faculty experts in other departments (for instance, faculty members with PhDs in Social Sciences like Economics or Environmental Studies in the IBL and MT departments) from serving as Subject Area Representatives; 2) faculty experts in Mathematics felt ill-equipped to judge course proposals in Science and vice versa, and 3) it was unclear what to do with Area E, which had very few offerings across a couple of different programs. In January 2018 membership was revised to include two Area B representatives.

In Fall 2019 the committee discussed a streamlined list of committee responsibilities and membership, which have governed the committee's work since then. *[See Part II: Policy, Section 1 Responsibility and Membership]*.

b) Curriculum Review and Compliance Retreat

In a Memo to Academic Department Chairs dated November 8, 2017, AVPAA Graham Benton urged departments to "review and revise your curriculum in accordance with these revisions." The memo asked department chairs to consider the following "restraints":

- "Existing programs cannot add any additional units to their current overall unit load."
- "The General Education Committee has to approve any course proposed to count for a General Education requirement."
- "All 39 units of lower-division General Education should be taken in the first two years of instruction."
- "If putting all 39 GE units in the first two years is detrimental to the overall curricular design of the program because of required foundational major courses, at the very least the "Golden Four" (Writing Communication, Oral Communication, Critical Thinking, and Quantitative Reasoning) should be taken in the first two years. Also, these Golden Four must be three-unit courses."
- "Be very careful of identifying a course in the major that "double-counts" for a General Education requirement. While this is permitted (with campus approval), it runs counter to the spirit of the goal of educational breadth and the desire for students to pursue coursework outside their major in order to satisfy intellectual curiosity."
- "A particular issue arises with the case of Ethics in that it is a required course for every student, yet if we count it as an upper division humanities elective there will be no room for any other upper division Area C electives. I suggest that if -- as a campus-- we agree that Ethics is an important subject for all of our students, then we remove this course from the Gen Ed program and make it a graduation requirement."

[Memo to Academic Department Chairs RE: Executive Order 1100 and Curriculum Review, November 8, 2017]

In January 2018 Benton organized a faculty-wide retreat during the workdays before the start of class to revise their major curricula to accommodate EO 1100. On January 5, 2018 all faculty met to discuss how to integrate General Education in a more comprehensive way into the curriculum. In his opening address to faculty, Benton identified some institutional problems in need of attention –

notably that 1) "we had a curriculum in place before this was a CSU and some majors never really subscribed to GE," 2) "faculty advisors aren't always on board ([they] think of GE as "something to get out of the way," and 3) "[historically there has been] no strong repository of GE policy and practices (this is currently changing)."

Initial work in February 2018 involved removing all of the old "ELEC designations" from courses and replacing them with up-to-date GE designations. The committee reviewed lists of classes by department to determine which classes were still in rotation (and which were defunct). The MT Department also submitted a new curriculum sheet reflecting the EO 1100 changes. An existing MT course in Meteorology was classified as upper division B4, bringing the department into full compliance. Finally, committee members began reviewing existing C1 courses after nothing that past practice at Cal Maritime (of interpreting C1 as "creative" and C2 as "critical") was at odds with the EO 1100 description, which specified that Area C "*excludes* courses that exclusively emphasize skills development." The department removed courses focused exclusively on art-making and added new offerings like HUM 115 Maritime Arts, as well as introductory courses in film and visual arts to diversify the catalog offerings.

In March 2018 the committee began discussions about the ET curricular revision which stalled for a number of reasons: high-unit majors argued that they could not add the additional units to make them compliant with EO 1100 and could not cut major courses without compromising the integrity of their degrees – something the previous GE Committee chair reported to WASC during their Spring 2019 visit.

WASC recommended that "work should continue on the integration of General Education programming in high-unit majors, especially in light of the CSU Executive Order 1100." In response, in Fall 2019 the committee again began reviewing all departmental curriculum sheets (particularly for high-unit majors) but this process again moved slowly as departments questions whether prior exemptions applied. As Benton explained in an email dated November 20, 2019: "there's been some delays, and part of this may have to be with jurisdictions over curricula. Perhaps more importantly, one of these memos alludes to departmental exceptions. Here's where I think it gets tricky: we were granted CO exemptions for the 120-unit threshold, and these curricula (including a list of ALL courses taken) had to be approved by the Chancellor's Office. If the curriculum sheet as approved by the CO was not in compliance with EO 1100, does this infer the CO approved Gen Ed exemptions? I don't know, and anyway, 1100 has been revised since then, so I'm not sure that even the previous exemption would suffice."

On January 16, 2020 the GE Committee Chair presented to the Senate a tentative timeline for reviewing all department curriculum sheets, creating/implementing an assessment plan, and communicating more directly with the Chancellor's Office regarding questions about possible departmental waivers.

Discussions began in December 2019 with the Mechanical Engineering department about a preliminary proposal to meet C1 with major courses like Welding and Manufacturing Processes, something they chose not to pursue after reviewing the EO 1100 description of Area C1.

Curriculum Review has coincided with major program-level changes happening simultaneously. (The MT department concluded their program level revisions in 2020; IBL and ME are preparing to submit major program level revisions to the Curriculum Committee in early Spring 2021, and GSMA

presented a preliminary plan to create tracks within the major in February 2020. These simultaneous efforts have slowed the speed of General Education compliance as majors are taking a holistic approach rather than focusing on GE Compliance *before* revising their programs.
High-unit majors are seeking permissions from the chancellor to meet one Golden Four course in major. Over the course of three meetings (10/6/20, 11/3/20, and 12/1/20) the General Education committee discussed and finally approved the ME department proposal to meet Area A1 "in sequence" (through a sequence of major courses). Across the CSU, high-unit Engineering majors have been granted waivers for GE subject areas. Rather than request a waiver from the Chancellor's Office, the ME department opted instead to introduce and reinforce Oral Communication outcomes in a sequence of courses – one new 1-unit course on technical communication and two existing courses later in the curriculum. This will allow assessments to run through the General Education Committee as well as the department, ensuring that students are held to the same standards as those in A1 General Education courses. The units "saved" by this maneuver will allow ME to become compliant in Area C by adding an additional course, so there is minimal impact on the Department of Culture and Communication.

c) Creating a Culture of Assessment

In November of 2017 the General Education Committee cobbled together a list of 16 General Education Program Learning Outcomes (tentatively called "GESLOs"). The document specified that these outcomes were "taken directly from the learning outcomes from Departments of Culture & Communication; Sciences and Mathematics; and Global Studies and Maritime Affairs, as these three departments contribute nearly all the courses to the Gen Ed Program."

In an email dated November 2, 2017, Benton wrote to the GE Committee that while the proposed outcomes "generated some conversation," "I really don't see why these should be any different than the same ones we have for C&C and S/M combined, with a few others drawn to round out Areas D and E. […] We discussed this in [the] Dean and Chairs meeting: there are many departments who are still revising learning outcomes year after year. At some time we just need a fixed point so we can begin to construct an assessment plan around them." While the committee agreed that we needed a starting point, some members with prior assessment experience pointed out that the language of those department outcomes was not actually assessable, and the committee worked on incorporating language from Bloom's Taxonomy and streamlining the proposal.

In Spring 2018 the committee decided to create brand new General Education Learning Outcomes based directly on the language in the 2017 revised version of EO1100. While some members of the committee argued that we should simplify the assessment process by cutting the GE program outcomes from over a dozen to 5 or fewer, the committee ultimately reached a compromise by dividing the outcomes according to the five GE areas, each of which now has three outcomes. (**See Part III, Section 1**.)

The committee noted in Fall 2019 that there was considerable overlap between assessment efforts on campus, but the institution was not making an attempt to synchronize them. *[For more information, see Part V: Assessment]*

d) Revision of Curriculum Approval Process

During AY 2019-2020 the General Education Committee overhauled the Curriculum Approval form used to make recommendations about GE classification. The old form was a modified sheet of paper based on the form Department Chairs used to provide feedback on CCRs. The committee lacked a systematic set of criteria for evaluating GE Courses and ensuring they accord with the CSU descriptions and the limits to the old form meant that there was no substantive way to preserve records of discussion and deliberations. In the interest of creating a more robust platform for institutional memory, the committee began using the new forms which are in memo format and include specific criteria by with the GE Committee evaluates proposals. [**Appendix C**]

(While as of the time of writing the new General Education Committee By-Laws are not yet approved, proposed changes to the process would mean that rather than issuing the final decision, the General Education committee would make recommendations to the Curriculum Committee who would in turn make recommendations to the Faculty Senate. Each body would have the power to reject recommendations or send proposals back to the original committee for further deliberation. *[For more information see Part II: Policy, Section 2: Curriculum Review Process]*

e) Implementation of Ethnic Studies Requirement (after 2020 Revision)

Shortly after the passage of AB 1460 and in anticipation of the 2020 Revision to EO 1100 to include an Ethnic Studies course, the Deans, Department Chairs, and GE Committee Chair met to identify potential courses that would satisfy the General Education outcomes. The MTLM and Engineering Deans expressed concern that their third lower division D course was already "spoken for" since their majors were required to take Economics in addition to American Institutions History and Government courses (both graduation requirements) and could not feasibly add a standalone Ethnic Studies elective without additional units to the curriculum.

On October 15, 2020 the Provost, Deans, Chairs, and chairs of the Curriculum Committee and General Education Committee met to discuss options and determined (with unanimous agreement) that Cal Maritime would designate its American Institutions History courses as Area F.

An FAQ released by the Chancellor's Office on 9/29/2020 <https://www2.calstate.edu/impact-of-the-csu/diversity/advancement-of-ethnic-studies/Documents/FAQ-on-Ethnic-Studies.pdf> confirmed that: "a course could meet both the "Area F" ethnic studies requirement and the United States History graduation requirement by fulfilling the learning outcomes for both. However, if United States History meets an "Area D" requirement, the student would need to choose the GE area for credit (either F or D). The requirement in American history would be complete no matter which GE area the student selects."

The existing American History courses will be formally revised to formally codify the Ethnic Studies focus: HIS 100 will now be called "Survey of American History to 1877: Precontact through the Civil War" and HIS 101 will now be called "Survey of American History from 1877: Civil War Through Civil Rights." While not much is changing materially about the way the instructor, Jennifer Metz, has taught the course for years at Cal Maritime, she has updated the course descriptions and outcomes to guarantee that anyone teaching the courses in the future must meet the same standard and therefore meet the Area F learning outcomes. The courses will also retain its Area D designation

and, as indicated in the FAQ document mentioned above, students will need to choose the GE are for which they receive credit.

In practice, the majority of Cal Maritime students will take the course to satisfy the Area F requirement but keeping Area D classification means that transfer students who may come to Cal Maritime already having fulfilled Area F elsewhere may still take the course for Area D credit. GSMA department representative Ryan Dudley reported that the GSMA department is planning to develop an additional Ethnic Studies course which may be of interest to transfer students who may have taken an American Institutions course that did *not* satisfy Area F outcomes elsewhere

On December 9, 2020 Benton and the GE Committee Chair met with Associate Chancellor Alison Wrynn who confirmed that the plan was acceptable but indicated that we would need to add a new Ethnic Studies Prefix to the American History courses. Registrar Julia Odom confirmed that we can "equate" two course prefixes in our catalog so the courses will be called HIS100/ES100 and HIS 101/ES101. Wrynn recommended tagging an existing C&C Course, "Multicultural Literature in America," as another option but for the moment it is unclear whether our enrollment numbers necessitate the creation of additional Area F offerings. Wrynn noted that we can always tell the handful of transfer students who have already taken history that "we'll facilitate you finding another Ethnic Studies course at another CSU" and mentioned several campuses planning to offer online Area F courses. As our enrollment rebounds post-pandemic there may be sufficient demand for additional Area F courses to offer to transfers, as well as GSMA and OCN students who have enough flexibility in their schedules to accommodate a standalone Area F elective that does not overlap with another graduation requirement.

4. Campus Responsibility

Article 6, Section 2 of EO1100 describes five elements of "Campus Responsibility": 1) overseeing the development/revision of campus General Education requirements, 2) maintaining a campus General Education committee, 3) ensuring that new Baccalaureate degrees are EO1100-compliant, 4) General Education academic advising, and 5) General Education review and assessment.

The table below identifies elements of campus responsibility (in column 1) and details about implementation at Cal Maritime (in column 2).

Currently the AVPAA and the General Education Committee have shared responsibility for overseeing the development and revision of campus GE requirements; the Faculty Senate is responsible for maintaining a campus General Education Committee; and that committee is responsible for ensuring that new Baccalaureate degrees are EO1100-compliant).

We do not currently have a clear chain of command for the last two campus responsibilities: GE-specific academic advising and General Education assessment, but in Fall 2020 the General Education committee discussed options for assigning responsibility, details of which are included in the second column of the table below:

Details about "Campus Responsibility" from EO 1100 Article 6, Section 2	Implementation at Cal Maritime
Article 6.2.1 (a.1) [Program Development]: "Assure that GE requirements are planned and organized so that their objectives are perceived by students as interrelated elements, not as isolated fragments."	There is no systematic planning/organizational process to ensure that GE requirements are interrelated. In the case where all subject area offerings are taught within a single department there is some coordination (eg. The Department of Culture and Communication scaffolds learning outcomes so that EGL 100 (A2) and EGL 220 (A3) form a sequence and outcomes are reinforced in the department's Area C courses. But some majors take Area C courses before completing the EGL 100 – EGL 220 sequence.)
Article 6.2.1 (a.2) [Program Development]: "Provide for reasonable ordering of requirements so that, for example, courses focusing on learning skills will be completed relatively early and those emphasizing integrative experiences will be completed relatively later."	Departments control the order in which courses are taken in their own majors, although the General Education committee strongly recommends that courses be scaffolded appropriately. Some majors delay lower division courses until junior and senior year while others cram courses that should be "scaffolded" into the same semester. *[See the "Curriculum Roadmaps" in Appendix D]* For example, ME majors entering in 2020 take all three lower-division Area D courses in their senior year. And MET Students entering in 2020 take their American Institutions I Elective, C2 Humanities Elective, *and* EGL 100 (English Composition) all at the same time in the spring of their first year. GE instructors of American Institutions and C2 Humanities agree that since both are writing-heavy courses, they should ideally be taken *after* students have taken English Composition.
Article 6.2.1 (a.3) [Program Development]: "Develop programs that are responsive to educational goals and student needs, rather than programs based on traditional titles of academic disciplines and organizational units."	All majors offer at least one General Education course. Recently approved GE courses like GMA 365 – Polar Politics (D), HUM 120 – Maritime Arts (C1), and LAW 315 – Admiralty Law are a product of the university's unique focus.
Article 6.2.1 (b.1) [Course Development]: "Consider the organization of approved courses so that students may choose from among a variety of "cores" or "themes," each with an underlying unifying rationale."	Cal Maritime has added several new General Education Courses since 2017 but we do not have a large enough student body to offer such a wide variety within subject areas to divide them into "cores" or "themes" (unless that theme is *Maritime*). In practice, given the high-unit load of many of our majors and students' co-curricular time commitments, students must (or are restricted to) pick classes based on the times they're offered rather than topic or theme, and incoming students are block enrolled in their General Education courses.
Article 6.2.1 (b.2) [Course Development]: "Consider the possibility of incorporating integrative courses, especially at the upper-division level, that feature the interrelationships among disciplines and traditional GE categories."	Not observed systematically, but a handful of examples exists (notably Physics for Future Leaders). In practice GE courses taught "in house" in major departments tend to also be major courses that typically contain only students in those majors (eg. ENG 310 or NAU 103). In response to this pattern, C&C Department Chair Colin Dewey asked in an email dated

	August 26, 2019 whether Article 3.1 of EO 1100 applies in practice in all cases at Cal Maritime. (Article 3.1 states that "CSU GE requirements have been designed to **complement** the major program and electives completed by each baccalaureate candidate, to assure that graduates have made noteworthy progress toward becoming truly educated persons.") Dewey questioned whether double-counting major courses in our highly technical majors was antithetical to the spirit of General Education; he noted that "Oxford dictionary defines complement as a "thing that contributes extra features to something else in such a way as to improve or emphasize its quality" and Merriam-Webster defines it as "something that fills up, completes, or makes perfect some other thing." Complement usually refers to two things that go along well. For example, cheese and wine complement each other. This tells me that the intent and the letter of the rule is that the GE requirements should not be identical with the major program, notwithstanding double-counting exceptions elsewhere."
Article 6.2.1 (b.3) [Course Development]: "Consider possibilities for innovative teaching and learning, including activity as well as observation in all GE coursework."	Not observed systematically. As a small university teaching and learning development opportunities tend to be open to all faculty.
Article 6.2.1 (c.1) [Course Delivery]: "Provide sufficient numbers of Area A2 written communication and Area B4 mathematics / quantitative reasoning course sections to allow freshmen to complete these requirements in the first year of enrollment."	This is not in the purview of the GE Committee at Cal Maritime. Department chairs (C&C and S&M) work in conjunction with the Registrar to provide sufficient numbers of sections.
Article 6.2.1 (c.2) [Course Delivery]: "Provide for at least one course in Ethnic Studies as stipulated in Education Code Section 89032." [*new with December 2020 revision to EO1100*]	In progress. Revised versions of HIS 100 and HIS 101 were just approved as ES 100 and ES 101 by the General Education committee. They are scheduled for Curriculum Committee review in January 2021.
Article 6.2.1 (c.3): "Courses approved for GE that have not been offered within a five-year period shall have GE status removed."	While only current courses appear on the list in this program review, there are some courses listed on documents floating around campus. The GE Committee will work with the registrar to make sure these courses formally have their GE status removed.
Article 6.2.1 (c.4) [Course Delivery]: "CSU campuses may certify upper-division courses for lower-division CSU GE Breadth requirements so long as adequate numbers of lower-division course options are available to students. [*new with December 2020 revision to EO1100*]	Already done on case-by-case basis. Requires form signed by Chair submitted to registrar.
Article 6.2.2 [Campus General Education Committee]: "[E]ach campus shall have a broadly	Our campus General Education Committee is broadly representative and includes instructional faculty from every

representative GE committee, a majority of which shall be instructional faculty and shall also include student membership. The committee will provide oversight and make recommendations concerning the implementation, conduct and evaluation of requirements specified in this executive order. As a companion to the GE committee, a campus may choose to establish a GE program assessment committee to conduct the work described in 6.2.5 of this executive order."	program and school. In Fall 2020 a student representative was added to comply with this article. In Fall 2020 the committee discussed options for GE program assessment. See Article 6.2.5a below for more details.
Article 6.2.3 [Development of New Baccalaureate Degrees]: "The development of new baccalaureate programs shall include consideration of how the degree requirements will incorporate at least the minimum required GE credits, the major program requirements, and other graduation requirements. Justifications must be provided to the Office of the Chancellor for any program extending the baccalaureate credit requirement beyond 120 units (Title 5, Section 40508)."	Since the last GE Program Review Cal Maritime has developed one new baccalaureate program in Oceanography, which was reviewed and approved for compliance by the GE Committee.
Article 6.2.4 [Academic Advising]: "Each campus shall provide for systematic, readily available academic advising specifically oriented to GE as one means of achieving greater cohesiveness in student choices of course offerings to fulfill these requirements."	Currently there is no systematic GE-specific advising platform. In Fall 2020 the committee discussed this Article and questioned whether it was necessary to provide additional GE-specific academic advising given our size or whether this was under the purview of our academic advisors. One member suggested that the GE Committee could provide a tutorial for advisors that would be distributed every semester along with a list of GE courses offered that year. ET Department Representative Mike Strange noted potential problems with sending out a list: "a lot of this is too late, students have made commitment already through SmartPlanner because it fits in [their] schedule." Strange noted that there are often discrepancies between lists of GE courses sent out by department chairs and what's on SmartPlanner. He proposed instead appointing a single GE advisor in each school who would be responsible for all of the "specialty info." Discussions are ongoing.
Article 6.2.4a [General Education Website]: "Each CSU campus shall provide a public website that describes the institution's GE program. This website should include at minimum: GE requirements, courses certified for GE, CSU system GE policy and campus GE policy, and campus GE program and GE Area student-learning outcomes."	Cal Maritime underwent a campus-wide website overhaul in October 2020. The GE Committee website nested under the Faculty Senate website has details about current membership, the CSU GE Breadth Requirements, and recent course approvals. Additionally, the Registrar hosts a General Education Program website, which includes a summary of the requirements and learning outcomes. A list of courses certified for GE needs to be uploaded.
Article 6.2.4b: "Each CSU campus shall clearly identify, in the catalog and/or course schedule, courses that are certified for each GE Subarea."	Each semester students are sent a list of available GE courses. But faculty report issues with courses classified incorrectly in SmartPlanner or the Catalog compared to emails sent by

	Department Chairs. These inconsistencies need to be resolved.
Article 6.2.5a [General Education Review and Assessment]: "[Campuses shall] develop an assessment plan that: (1) aligns the GE curriculum with campus GE outcomes; (2) specifies explicit criteria for assessing the stated outcomes; (3) identifies when and how each outcome shall be assessed; (4) organizes and analyzes the collection of evidence; (5) and uses the assessment results to make improvements to the GE program, courses and pedagogy.	In progress. [See "Recommendations"]
Article 6.2.5b [General Education Review and Assessment]: "[Campuses shall] provide for regular periodic reviews of GE program policies and practices in a manner comparable to those of major programs, including evaluation by an external reviewer. The review should include a statement of the Meaning, Quality and Integrity of the campus GE program and the ongoing assessment of GE student learning outcomes."	Not current practice. [See "Recommendations"]

II. Policy

1. Responsibilities and Membership

The following list of committee responsibilities and membership have governed the General Education Committee's work since then:

Responsibilities

- Review proposals for courses designated as fulfilling GE requirements and make recommendations to the Curriculum Committee.
- Review curricula of degree-granting departments for GE compliance, and make recommendations to departments.
- Consult with individual faculty members, departments, and schools regarding all aspects of the general education program.
- Monitor any general education program announcements and edicts from the Chancellor's Office and make recommendations.

Membership

- Members are appointed by the Executive Committee of the Senate, in consultation with department chairs. Committee includes at least five faculty members, each of whom has expertise in and assumes responsibility over the following General Education subject areas:
    - one representative for Area A: English Language Communication and Critical Thinking
    - two representatives for Area B: one for Scientific Inquiry and one for Quantitative Reasoning
    - one representative for Area C: Arts and Humanities
    - one representative for Area D: Social Sciences
    - one representative for Area E: Lifelong Learning and Self-Development
    - one representative from each department not represented by any of the subject area experts
    - the Provost/Vice-President for Academic Affairs (or designee) [non-voting member]
    - one representative from the Registrar's office [non-voting member]
    - one student representative [added in Fall 2020 to comply with EO 1100]

2. Curriculum Review Process

As reported in Part I, Section 3, Subsection D of this document, the General Education Committee adopted a new procedure for curriculum review. These forms are available in **Appendix C.**

Beginning in Fall 2019 for the first time the GE Committee Chair and Curriculum Committee Chair organized meetings in sequence to streamline workflow:

The General Education Committee meets on the first Tuesday of the month during the semesters and the Curriculum Committee will meets on the second Tuesday of the month during the semesters. Course approval documents are forwarded from the GE Committee to the Curriculum

Committee. (For record-keeping purposes, the Department Chairs of the department initiating the proposal is also CC'd, as is administrative support staff.)

In conjunction with Faculty Senate efforts to improve the Curriculum Review Process, the GE Committee is currently working with Faculty Senate leaders and the Curriculum Committee to revise policies for both committees, to standardize expectations, and to guarantee that information is reported out to the wider campus community in more systematic ways. The Faculty Senate has set a deadline of Spring 2021 for these policy updates.

III. Program Objectives and Educational Outcomes

1. Learning Outcomes

Area A Outcomes	GELO 1: Demonstrate proficiency in oral communication in English, examining communication from the rhetorical perspective and practicing reasoning and advocacy, organization, and accuracy.
	GELO 2: Demonstrate proficiency in written communication in English, examining communication from the rhetorical perspective and practicing reasoning and advocacy, organization, and accuracy.
	GELO 3: Demonstrate ability to analyze, criticize, and advocate ideas; to reason inductively and deductively; and to reach well-supported conclusions.
Area B Outcomes	GELO 4: Apply scientific principles and the scientific method to data about both living and non-living systems.
	GELO 5: Demonstrate ability to reason quantitatively.
	GELO 6: Explain and apply mathematical or quantitative reasoning concepts to solve problems.
Area C Outcomes	GELO 7: Evaluate aesthetic experiences subjectively as well as objectively.
	GELO 8: Demonstrate awareness of the relation between the arts [C1] and their cultural contexts.
	GELO 9: Demonstrate awareness of the relation between literary and philosophical texts [C2] and their cultural contexts.
Area D Outcomes	GELO 10: Identify and explain the links between human social, political and economic institutions and behavior.
	GELO 11: Analyze social problems and issues in their contemporary as well as historical settings and in a variety of cultural contexts.
	GELO 12: Explore the principles, methodologies, value systems and ethics employed in social scientific inquiry.
Area E Outcomes	GELO 13: Demonstrates ability to pursue knowledge and solve problems independently.
	GELO 14: Applies knowledge and skills from one context to another.
	GELO 15: Identify, access, and evaluate appropriate sources of information.

2. Alignment with Institution-Wide Learning Outcomes

At least half of the new GELOs overlap with Cal Maritime's Institution-Wide Learning Outcomes. Text in red indicates potential overlap.

[See Part V, Section 1 for a detailed account of current assessment practices.]

Overlapping Institution-Wide Learning Outcomes (ILOs) and General Education Learning Outcomes (GELOs)	
ILO A – Communication	• GELO 1: Demonstrate proficiency in oral communication in English, examining communication from the rhetorical perspective and practicing reasoning and advocacy, organization, and accuracy. • GELO 2: Demonstrate proficiency in written communication in English, examining communication from the rhetorical perspective and practicing reasoning and advocacy, organization, and accuracy.

ILO B – Critical and Creative Thinking	• GELO 3: Demonstrate ability to analyze, criticize, and advocate ideas; to reason inductively and deductively; and to reach well-supported conclusions. (EGL 220)
ILO C – Quantitative Reasoning	• GELO 5: Demonstrate ability to reason quantitatively. • GELO 6: Explain and apply mathematical or quantitative reasoning concepts to solve problems.
ILO D – Lifelong Learning	• GELO 13: Demonstrates ability to pursue knowledge and solve problems independently. • GELO 14: Applies knowledge and skills from one context to another. • *NOTE: IWAC has recommended deleting ILO D.*
ILO E – Discipline-Specific Knowledge	• *NOTE: Depends on the Discipline, eg. Global Studies Program Outcomes align with Area D Learning outcomes*
ILO F – Information Fluency	• GELO 15: Identify, access, and evaluate appropriate sources of information.
ILO G – Leadership and Teamwork	• N/A
ILO H – Ethical Awareness	• N/A
ILO I – Global Learning	• *NOTE: Some metrics of Global Learning Rubric may align with GELO 11 (Area D).*

General Education Learning Outcomes (GELOs) **not** currently covered by IWAC	
AREA B (1-3)	• GELO 4: Apply scientific principles and the scientific method to data about both living and non-living systems.
AREA C	• GELO 7: Evaluate aesthetic experiences subjectively as well as objectively. • GELO 8: Demonstrate awareness of the relation between the arts [C1] and their cultural contexts. • GELO 9: Demonstrate awareness of the relation between literary and philosophical texts [C2] and their cultural contexts.
AREA D	• GELO 10: Identify and explain the links between human social, political and economic institutions and behavior. • GELO 11: Analyze social problems and issues in their contemporary as well as historical settings and in a variety of cultural contexts. • GELO 12: Explore the principles, methodologies, value systems and ethics employed in social scientific inquiry.
AREA E	• GELO 13: Demonstrates ability to pursue knowledge and solve problems independently. • GELO 14: Applies knowledge and skills from one context to another. NOTE: IWAC last assessed Lifelong Learning in 2016-2017 and the report indicated that "the Lifelong learning ILO was a challenge to assess given the myriad interpretations of the outcome (both its intent and measurability.) IWAC used data from the 2016-2017 NSSE report, but data comes from a survey administered to undergraduates and is therefore flawed. In July 2020 the IWAC decided to recommend deleting "Lifelong Learning" as an Institution-Wide Outcome after creating the instrument (rubric) that would be used for assessment. The committee realized that their rubric duplicated metrics from ILO F (Informational Fluency) *and* ILO B (Critical and Creative Thinking) rubrics and believes that assessing Lifelong Learning as a separate ILO is therefore redundant. If IWAC ceases to assess Lifelong Learning, the GE Committee will need to oversee assessment of the Area E GELOs independently. (The GE committee may choose to adopt the rubric IWAC created in Summer 2020.)

3. Alignment with Program-Level Learning Outcomes

The **Department of Culture and Communication** has already mapped their Program Learning Outcomes onto *both* ILOs and GELOs, which will facilitate assessment:

- C&C PLO 1: Clearly express ideas in writing. (ILO A, **GELO 1**)
- C&C PLO 2: Clearly express ideas in speech. (ILO A, **GELO 2**)
- C&C PLO 3: Identify the implicit ideas, beliefs, and conditions underlying written and spoken statements. (ILO B, **GELO 3**)
- C&C PLO 4: Analyze how rhetorical choices impact the way information is communicated. (ILO B, **GELO 3**)
- C&C PLO 5: Interpret texts, ideas, or issues through the collection and analysis of textual evidence. (ILO B, **GELO 3**)
- C&C PLO 6: Explain the relation between texts, ideas, and issues and their socio-political, historical, and cultural contexts. (**GELO 8, GELO 9**)
- C&C PLO 7: Analyze works of philosophical, literary, aesthetic, and cultural importance. (**GELO 7, GELO 8, GELO 9**)
- C&C PLO 8: Evaluate aesthetic and cultural experiences subjectively as well as objectively. (**GELO 7**)
- C&C PLO 9: Identify, access, and evaluate appropriate sources of information. (ILO F, **GELO 15**)

The C&C Department has also standardized outcomes across all sections of A1, A2, A3, C1 and C2 courses and aligned individual course learning outcomes to GELOs. (The department has even coordinated Area A2 and A3 course outcomes down to the assignment level in EGL 100 and EGL 220 to facilitate assessment.

The **Global Studies department** Student Learning Objectives (aka Program Learning Outcomes) have been mapped onto ILOs but not GELOs. They may wish to break up PLO 1 "Disciplinary-specific Knowledge" into additional outcomes that align with Area D GELOs.

- GSMA PLO 1: Discipline-specific Knowledge [E] Understand key components of discipline specific knowledge in maritime security, ocean geography and environmental issues, maritime law and organizations, history and political systems, and maritime policy.
- GSMA PLO 2: Global Learning [I] Analyze contemporary issues in global studies and maritime affairs.
- GSMA PLO 3: Information Fluency [F] Locate appropriate sources and synthesize relevant theoretical and practical information.
- GSMA PLO 4: Critical Thinking [B] Apply critical thinking skills to present informed solutions to emerging challenges in the maritime world.
- GSMA PLO 5: Communication [A] Demonstrate strong communication skills using well-reasoned arguments.

The GSMA Department has not yet standardized outcomes across GE courses but this may not be easy to do since their GE courses double as major courses and may have additional outcomes unrelated to the GELOs.

The **Department of Sciences and Mathematics** has a total of seven Program Learning outcomes which it classifies as "Sciences Student Learning Outcomes" and "Mathematics Student Learning Outcomes." (For consistency across departments I have taken the liberty of renaming them PLOs 1-7 here even though the S&M Department calls them SSLOs and MSLOs.)

Sciences – Student Learning Outcomes

- S&M PLO1: Understand scientific principles and their relationship to the physical universe.
- S&M PLO2: Use theories, principles and models, in conjunction with the scientific method to analyze problems in science.
- S&M PLO 3: Acquire and utilize mathematical and computational techniques to both analyze and comprehend problems in science.
- S&M PLO 4: Effectively communicate scientific information in a way that is meaningful and convincing

Mathematics – Student Learning Outcomes

- S&M PLO 5: Apply mathematical techniques and reasoning to problems in math.
- S&M PLO 6: Create mathematical expressions from a word or application problem and analyze those expressions applying mathematical principles.
- S&M PLO 7: Demonstrate an understanding of the theoretical and practical aspects of solving problems in math.

The S&M Department has begun work standardizing outcomes across different sections of GE Courses. Chair Cynthia Trevisan reported to the GE Chair in an email that "Ariel Setniker took on the coordination of all MTH 100 sections. This included common SLO, common final exam questions, class materials, and coordination of topics and sequences between all the different instructors."

Note: As part of this report I have also mapped all GELOs down to the level of individual courses. I have included that table in the section on Assessment. See Part V, Section 2 for Course Outcomes map.

IV. Program Delivery

1. List of Current General Education Courses

Area A: English Language Communication and Critical Thinking

A1 Oral Communication		
EO1100 Description: Students will develop proficiency in oral communication in English, examining communication from the rhetorical perspective and practicing reasoning and advocacy, organization, and accuracy.		
Course Number	**Course Title**	**Level**
EGL 110	Speech Communication	
EGL 120	Technical Communication	

A2 Written Communication		
EO1100 Description: Students will develop proficiency in written communication in English, examining communication from the rhetorical perspective and practicing reasoning and advocacy, organization, and accuracy.		
Course Number	**Course Title**	**Level**
EGL 100	English Composition	Lower Division
EGL 102	Stretch Composition II	Lower Division

A3 Critical Thinking		
EO1100 Description: In critical thinking (Subarea A3) courses, students will understand logic and its relation to language; elementary inductive and deductive processes, including an understanding of the formal and informal fallacies of language and thought; and the ability to distinguish matters of fact from issues of judgment or opinion.		
Course Number	**Course Title**	**Level**
EGL 220	Critical Thinking	Lower Division

Area B: Scientific Inquiry and Quantitative Reasoning

B1 Physical Science		
EO1100 Description: Students develop knowledge of scientific theories, concepts, and data about non-living systems.		
Course Number	**Course Title**	**Level**
CHE 105	Introductory Chemistry	Lower Division
CHE 110	General Chemistry	Lower Division
CHE 205	Chemistry of Power Plant Processes	Lower Division
NAU 330	Meteorology	Upper Division
OCN 200	Oceanography I	Lower Division
OCN 210	Oceanography II	Lower Division
OCN 320	Oceans and Climate	Upper Division
PHY 100	General Physics I	Lower Division
PHY 105	General Physics II	Lower Division
PHY 120	Physics for Future Leaders	Lower Division
PHY 200	Engineering Physics I	Lower Division
PHY 205	Engineering Physics II	Lower Division

B2 Life Science		
EO1100 Description: Students develop knowledge of scientific theories, concepts, and data about living systems.		
Course Number	**Course Title**	**Level**
OCN 100	Marine Biology	Lower Division
OCN 110	Marine Ecology	Lower Division

B3 Laboratory Activity		
Course Number	**Course Title**	**Level**
CHE 105L	Introductory Chemistry Lab	Lower Division
CHE 110L	General Chemistry Lab	Lower Division

OCN 100L	Marine Biology Lab	Lower Division
OCN 110L	Marine Ecology Lab	Lower Division
OCN 200L	Introduction to Oceanography Lab	Lower Division
PHY 100L	General Physics Lab	Lower Division
PHY 105L	General Physics II Lab	Lower Division
PHY 120L	Physics for Future Leaders Lab	Lower Division
PHY 200L	Engineering Physics I Lab	Lower Division

B4 Mathematics/Quantitative Reasoning		
EO1100 Description: Through courses in Subarea B4 students shall demonstrate the abilities to reason quantitatively, practice computational skills, and explain and apply mathematical or quantitative reasoning concepts to solve problems.		
Course Number	**Course Title**	**Level**
MGT 410	Quantitative Managerial Methods	Upper Division
MTH 100	College Algebra and Trig	Lower Division
MTH 107	Elementary Statistics	Lower Division
MTH 205	Calculus for Business	Lower Division
MTH 210	Calculus I	Lower Division
MTH 211	Calculus II	Lower Division
MTH 212	Calculus III	Lower Division
MTH 215	Differential Equations	Lower Division
NAU 205	Ship Stability	Lower Division

Area C: Arts and Humanities

C1 Arts: Arts, Cinema, Dance, Music, Theater		
EO1100 Description: 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 [to visual arts, cinema, dance, music, and/or theater].		
Course Number	**Course Title**	**Level**
EGL 195	Special Topics [C1 or C2 depending on topic]	Lower Division
EGL 225	Creative Writing	Lower Division
EGL 395	Special Topics [C1 or C2 depending on topic]	Upper Division
HUM 115	Maritime Arts [may also count as Area E]	Lower Division
HUM 120	Introduction to Visual Arts	Lower Division
HUM 215	Introduction to Cinema	Lower Division
HUM 395	Special Topics [C1 or C2 depending on topic]	Upper Division

C2 Humanities: Literature, Philosophy, Languages Other than English (with cultural component)		
EO1100 Description: 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 [to literature, philosophy, and/or languages other than English if the courses do not focus solely on skills acquisition but also contain a substantial cultural component].		
Course Number	**Course Title**	**Level**
EGL 195	Special Topics [C1 or C2 depending on topic]	Lower Division
EGL 200	Introduction to Literature	Lower Division
EGL 305	20th Century American Literature	Upper Division
EGL 309	British Literature of the Sea	Upper Division
EGL 310	U.S. Literature of the Sea	Upper Division
EGL 315	World Literature of the Sea	Upper Division
EGL 320	Literature of the Fantastic	Upper Division
EGL 330	Literature and Psychology	Upper Division
EGL 340	Multicultural Literature in America	Upper Division
EGL 345	Literature and the Environment	Upper Division
EGL 395	Special Topics [C1 or C2 depending on topic]	Upper Division
HUM 325	Globalization of Culture	Upper Division

HUM 350	Maritime Culture	Upper Division
HUM 380	Ethical Inquiry	Upper Division
HUM 395	Special Topics	Upper Division
HUM 400	Ethics	Upper Division
LAN 110	Spanish I	Lower Division
LAN 115	Spanish II	Lower Division
LAN 120	Chinese I	Lower Division
LAN 125	Chinese II	Lower Division

Area D: Social Sciences

D Social Sciences: "units dealing with human social, political and economic institutions and behavior, and their historical background." (EO 1100 Revised)		
EO1100 Description: Students will develop an understanding of problems and issues from the respective disciplinary perspectives and will examine issues in their contemporary as well as historical settings and in a variety of cultural contexts. Students will explore the principles, methodologies, value systems and ethics employed in social scientific inquiry.		
Students shall complete courses from at least two different disciplines.		
Course Number	**Course Title**	**Level**
CSL 120	Community Service Learning [may also count as Area E]	Lower Division
CSL 210	Dying: Final Stage of Living [may also count as Area E]	Lower Division
ECO 100	Macroeconomics	Lower Division
ECO 101	Microeconomics	Lower Division
ENG 310	Engineering Ethnics	Upper Division
GMA 100	International Relations	Lower Division
GMA 105	Ocean Politics	Lower Division
GMA 195	Special Topics	Lower Division
GMA 215	Comparative Politics	Lower Division
GMA 225	SE Asia-Maritime/Mainland	Lower Division
GMA 235	GIS Mapping and Spatial Analysis	Lower Division
GMA 240	World Geography	Lower Division
GMA 250	Environmental Policy	Lower Division
GMA 300	US Foreign Policy	Upper Division
GMA 310	The Geopolitics of Energy	Upper Division
GMA 315	China and its Neighbors	Upper Division
GMA 320	Ocean Environmental Management	Upper Division
GMA 325	Indian Ocean Rim	Upper Division
GMA 330	Maritime Security	Upper Division
GMA 335	Maritime California	Upper Division
GMA 340	International Migration	Upper Division
GMA 350	Political Geography	Upper Division
GMA 355	Cross-Cultural Competence	Upper Division
GMA 365	Polar Politics	Upper Division
GMA 395	Special Topics	Upper Division
GMA 405	International Maritime Organizations	Upper Division
GOV 200	American Government	Lower Division
HIS 100	US History (to 1877)	Lower Division
HIS 101	US History (from 1877)	Lower Division
HIS 300	Maritime History of the US	Upper Division
HIS 305	The World Since 1500	Upper Division
HIS 315	World Maritime History I	Upper Division
HIS 316	World Maritime History II	Upper Division
LAW 315	Admiralty Law	Upper Division
LDR 210	Foundations of Leadership [may also count as Area E]	Lower Division

Area E: Lifelong Learning and Self-Development

E Lifelong Learning: "Courses in this area shall focus on the development of skills, abilities and dispositions." (EO1100 Revised)		
EO1100 Description: This requirement is designed to equip learners for lifelong understanding and development of themselves as integrated physiological, social, and psychological beings. Physical activity may be included, if it is an integral part of the study elements described herein. Content may include topics such as student success strategies, human behavior, sexuality, nutrition, physical and mental health, stress management, information literacy, social relationships and relationships with the environment, as well as implications of death and dying or avenues for lifelong learning.		
Course Number	**Course Title**	**Level**
CSL 120	Community Service Learning [may also count as Area D]	Lower Division
CSL 210	Dying: Final Stage of Living [may also count as Area D]	Lower Division
GMA 355	Cross-Cultural Competence [may also count as Area D]	Upper Division
HUM 115	Maritime Arts [may also count as Area C1]	Lower Division
LDR 210	Foundations of Leadership [may also count as Area D]	Lower Division
NAU 103	Introduction to Marine Transportation	Lower Division

2. Compliance by Major

The following tables indicate how programs comply with EO 1100. Currently OCN and MT are the only fully compliant majors.

GSMA currently satisfies Area E with a 2-unit course (and the requirement is 3 units). IBL currently satisfies Area E with a major course that has not yet undergone review by the GE Committee. But they are both otherwise compliant.

The Engineering majors have the most work to do toward compliance.

All information is from 2020 Curriculum Sheets [**Appendix D**], with the exception of MT, where the information is based on the new curriculum (to be implemented in Fall 2021) and ME, which did not previously take an upper division Area D course and will be adding ENG 310 starting in Fall 2021 as a step toward compliance.

Note: these sheets do not yet include the addition of Area F – Ethnic Studies. Starting in Fall 2021 HIS 100 and HIS 101 (currently classified as Lower Division Area D courses) will become Area F courses.

ME Curriculum (License and ME Options) General Education Courses

Area A English Language Communication/Critical Thinking	**Units**	***How is requirement met?***
A1 Oral Communication	3	EGL 120 – Technical Communication
A2 Written Communication	3	EGL 100 – English Composition
A3 Critical Thinking	3	EGL 220 – Critical Thinking

Area B Scientific Inquiry and Quantitative Reasoning	**Units**	***How is requirement met?***
Lower Division B1 Physical Science (Lower Division)	3	CHE 110 – General Chemistry
Lower Division B2 Life Science	3	Unspecified Life Science elective
Lower Division B3 Laboratory Activity	1	CHE 110 – Chemistry Lab
Lower Division B4 Mathematics/Quantitative Reasoning	3	MTH 210 - Calculus
Upper Division Area B	3	N/A

Area C Arts and Humanities	**Units**	***How is requirement met?***
Lower Division C1 Arts: Arts, Cinema, Dance, Music, Theater	3	N/A
Lower Division C2 Humanities: Literature, Philosophy, Languages	3	Unspecified Humanities Elective
Lower Division C1 or C2	3	N/A
Upper Division Area C	3	Unspecified Humanities Elective

Area D Social Sciences	**Units**	***How is requirement met?***
Lower Division Area D (discipline 1)	3	American Institutions I (Hist)
Lower Division Area D (discipline 2)	3	Unspecified Social Science Elective
Lower Division Area D	3	American Institutions II (GOV 200)
Upper Division Area D	3	ENG 310 – Engineering Ethics

Area E Lifelong Learning and Self-Development	**Units**	***How is requirement met?***
Area E	3	N/A

ADDITIONAL MAJOR REQUIREMENTS WITH GE CLASSIFICATION

- PHY 200 – Engineering Physics I B1
- PHY 200L – Engineering Physics Lab B3
- PHY 205 – Engineering Physics II B1
- MTH 211 – Calculus II B4
- MTH 212 – Calculus III B4
- MTH 215 – Differential Equations B4
- (HUM 310 Engineering Ethics still appears on 2020 Curriculum Sheet as an *extra* Area C2 Upper Division)

ADDITIONAL NOTES:

- All of the GE (with the exception of a handful of Area B courses) is crammed into Year 1 and Year 4.

ET Curriculum (MET and FET) General Education Courses

Area A English Language Communication/Critical Thinking	**Units**	***How is requirement met?***
A1 Oral Communication	3	EGL 110 – Speech Communication
A2 Written Communication	3	EGL 100 – English Composition
A3 Critical Thinking	3	EGL 220 – Critical Thinking

Area B Scientific Inquiry and Quantitative Reasoning	**Units**	***How is requirement met?***
Lower Division B1 Physical Science (Lower Division)	3	CHE 110 – General Chemistry
Lower Division B2 Life Science	3	N/A
Lower Division B3 Laboratory Activity	1	CHE 110 – Chemistry Lab
Lower Division B4 Mathematics/Quantitative Reasoning	3	MTH 100 – College Algebra and Trig
Upper Division Area B	3	N/A

Area C Arts and Humanities	**Units**	***How is requirement met?***
Lower Division C1 Arts: Arts, Cinema, Dance, Music, Theater	3	N/A
Lower Division C2 Humanities: Literature, Philosophy, Languages	3	Unspecified Humanities Elective
Lower Division C1 or C2	3	N/A
Upper Division Area C	3	Unspecified Humanities Elective

Area D Social Sciences	**Units**	***How is requirement met?***
Lower Division Area D (discipline 1)	3	American Institutions I (Hist)
Lower Division Area D (discipline 2)	3	N/A [can add unspecified social science elective here and replace UD one with ENG 310 like ME]
Lower Division Area D	3	American Institutions II (GOV 200)
Upper Division Area D	3	Unspecified Social Science Elective

Area E Lifelong Learning and Self-Development	**Units**	***How is requirement met?***
Area E	3	LIB 100 (only 2 units)

ADDITIONAL MAJOR REQUIREMENTS WITH GE CLASSIFICATION

- PHY 200 – Engineering Physics I B1
- PHY 200L – Engineering Physics Lab B3
- PHY 205 – Engineering Physics II B1
- MTH 210 – Calculus I B4
- MTH 211 – Calculus II B4
- Unspecified Upper Division Area D [change this to a lower-division elective for compliance]
- HUM 310 Engineering Ethics still appears on Curriculum Sheet as an *additional* Upper Division Area C2 Division, but course is no longer classified as Area C. Easy Fix: replace unspecified upper division social science elective with unspecified lower division social science elective and take ENG 310 as upper division Area D like ME does.

MT (2020 Revised Curriculum) General Education Courses (Fall 2021)

Area A English Language Communication/Critical Thinking	**Units**	***How is requirement met?***
A1 Oral Communication	3	EGL 110
A2 Written Communication	3	EGL 100
A3 Critical Thinking	3	EGL 220

Area B Scientific Inquiry and Quantitative Reasoning	**Units**	***How is requirement met?***
Lower Division B1 Physical Science (Lower Division)	3	PHY 100
Lower Division B2 Life Science	3	Unspecified Life Science elective
Lower Division B3 Laboratory Activity	1	PHY 100L
Lower Division B4 Mathematics/Quantitative Reasoning	3	MTH 100
Upper Division Area B	3	NAU 330 – Meteorology

Note: NAU 205 is listed as a B4 on the "Curriculum Sheet," but that requirement is already satisfied by Math 100.

Area C Arts and Humanities	**Units**	***How is requirement met?***
Lower Division C1 Arts: Arts, Cinema, Dance, Music, Theater	3	Unspecified Art elective
Lower Division C2 Humanities: Literature, Philosophy, Languages	3	Unspecified Humanities elective
Lower Division C1 or C2	3	Unspecified Humanities elective
Upper Division Area C	3	Unspecified Humanities elective

Note: The "Copy of Curriculum Sheet with changes Feb 2020" includes two "Area C UD" courses. Department was instructed by GE Committee to reclassify one as LD.

Area D Social Sciences	**Units**	***How is requirement met?***
Lower Division Area D (discipline 1)	3	American Institutions I
Lower Division Area D (discipline 2)	3	ECO 100
Lower Division Area D	3	American Institutions II (GOV 200)
Upper Division Area D	3	LAW 315 – Admiralty Law

Area E Lifelong Learning and Self-Development	**Units**	***How is requirement met?***
Area E	3	NAU 103

OCN Curriculum General Education Courses

Area A English Language Communication/Critical Thinking	**Units**	*How is requirement met?*
A1 Oral Communication	3	EGL 110
A2 Written Communication	3	EGL 100
A3 Critical Thinking	3	EGL 220

Area B Scientific Inquiry and Quantitative Reasoning	**Units**	*How is requirement met?*
Lower Division B1 Physical Science (Lower Division)	3	CHE 110
Lower Division B2 Life Science	3	OCN 100
Lower Division B3 Laboratory Activity	1	CHE 110L
Lower Division B4 Mathematics/Quantitative Reasoning	3	MTH 210
Upper Division Area B	3	OCN 320

Area C Arts and Humanities	**Units**	*How is requirement met?*
Lower Division C1 Arts: Arts, Cinema, Dance, Music, Theater	3	Unspecified Art elective
Lower Division C2 Humanities: Literature, Philosophy, Languages	3	Unspecified Humanities elective
Lower Division C1 or C2	3	Unspecified UD Humanities elective
Upper Division Area C	3	HUM 400

Area D Social Sciences	**Units**	*How is requirement met?*
Lower Division Area D (discipline 1)	3	American Institutions I (HIS)
Lower Division Area D (discipline 2)	3	American Institutions II (GOV 200)
Lower Division Area D	3	Unspecified LD or UD elective
Upper Division Area D	3	GMA 320

Area E Lifelong Learning and Self-Development	**Units**	*How is requirement met?*
Area E	3	Unspecified Area E Elective

ADDITIONAL MAJOR REQUIREMENTS WITH GE CLASSIFICATION

- OCN 100L B3 Lower Division
- OCN 110 B2 Lower Division
- OCN 110L B3 Lower Division
- OCN 200 B1 Lower Division
- OCN 210 B1 Lower Division
- OCN 210L B3 Lower Division
- PHY 100 B1 Lower Division
- PHY 100L B1 Lower Division
- PHY 105 B1 Lower Division
- PHY 105L B3 Lower Division
- MTH 107 B4 Lower Division

ADDITIONAL NOTES:

- Curriculum Sheet includes two "Area C UD" courses – HUM 400 (Ethics) and an Unspecified UD Humanities elective. There are a total of 12 units, though.

GSMA Curriculum General Education Courses

Area A English Language Communication/Critical Thinking	**Units**	***How is requirement met?***
A1 Oral Communication	3	EGL 120 – Technical Communication
A2 Written Communication	3	EGL 100 – English Composition
A3 Critical Thinking	3	EGL 220 – Critical Thinking

Area B Scientific Inquiry and Quantitative Reasoning	**Units**	***How is requirement met?***
Lower Division B1 Physical Science (Lower Division)	3	Unspecified Physical Science elective
Lower Division B2 Life Science	3	Unspecified Life Science elective
Lower Division B3 Laboratory Activity	1	Unspecified Lab Activity elective
Lower Division B4 Mathematics/Quantitative Reasoning	3	Unspecified Mathematics elective
Upper Division Area B	3	

Area C Arts and Humanities	**Units**	***How is requirement met?***
Lower Division C1 Arts: Arts, Cinema, Dance, Music, Theater	3	Unspecified Arts Elective
Lower Division C2 Humanities: Literature, Philosophy, Languages	3	Foreign Language I Elective
Lower Division C1 or C2	3	Foreign Language II Elective
Upper Division Area C	3	HUM 325 Globalization of Culture

Area D Social Sciences	**Units**	***How is requirement met?***
Lower Division Area D (discipline 1)	3	American Institutions I
Lower Division Area D (discipline 2)	3	GMA 100 International Relations
Lower Division Area D	3	American Institutions II (Gov)
Upper Division Area D	3	HIS 300 Maritime History of the US

Area E Lifelong Learning and Self-Development	**Units**	***How is requirement met?***
Area E	3	LIB 100 (only 2 units)

ADDITIONAL MAJOR REQUIREMENTS WITH GE CLASSIFICATION

- MTH 107 Elementary Statistics — B4 Lower Division
- ECO 110 Macroeconomics — D Lower Division
- GMA 105 Ocean Politics — D Lower Division
- GMA 215 Comparative Politics — D Lower Division
- GMA 220 Comparative Maritime Policies — D Lower Division
- GMA 230 U.S. Maritime Policy — D Lower Division
- GMA 300 U.S. Foreign Policy — D Upper Division
- GMA 330 Maritime Security — D Upper Division
- GMA 350 Political Geography — D Upper Division
- HUM 400 Ethics — C Upper Division

IBL Curriculum General Education Courses

Area A English Language Communication/Critical Thinking	**Units**	***How is requirement met?***
A1 Oral Communication	3	EGL 120 – Technical Communication
A2 Written Communication	3	EGL 100 – English Composition
A3 Critical Thinking	3	EGL 220 – Critical Thinking

Area B Scientific Inquiry and Quantitative Reasoning	**Units**	***How is requirement met?***
Lower Division B1 Physical Science (Lower Division)	3	Unspecified Physical Science elective
Lower Division B2 Life Science	3	Unspecified Life Science elective
Lower Division B3 Laboratory Activity	1	Unspecified Lab Activity elective
Lower Division B4 Mathematics/Quantitative Reasoning	3	MTH 100 College Algebra and Trig
Upper Division Area B	3	MGT 410 Quantitative Managerial Methods

Area C Arts and Humanities	**Units**	***How is requirement met?***
Lower Division C1 Arts: Arts, Cinema, Dance, Music, Theater	3	Unspecified Arts Elective
Lower Division C2 Humanities: Literature, Philosophy, Languages	3	Foreign Language I Elective
Lower Division C1 or C2	3	Foreign Language II Elective
Upper Division Area C	3	HUM 400 Ethics

Area D Social Sciences	**Units**	***How is requirement met?***
Lower Division Area D (discipline 1)	3	American Institutions I (Hist)
Lower Division Area D (discipline 2)	3	ECO 100 Macroeconomics
Lower Division Area D	3	American Institutions II (Gov)
Upper Division Area D	3	LAW 300 International Law

Area E Lifelong Learning and Self-Development	**Units**	***How is requirement met?***
Area E	3	BUS 120 Environment of Modern Business [not on Registrar's list]

ADDITIONAL MAJOR REQUIREMENTS WITH GE CLASSIFICATION

- MTH 107 Elementary Statistics B4 Lower Division
- MTH 205 Calculus for Business B4 Lower Division
- ECO 101 Microeconomics D Lower Division

V. Assessment

1. Current Process

[See Part III, Section 2 for a chart detailing overlap between IWAC and GE Assessment.]

All Area A GELO assessment overlaps neatly with IWAC assessment of ILO A (Communication) and ILO B (Critical and Creative Thinking). The lower-division courses from which IWAC collects assessment data are all current Area A General Education courses. There are no upper-division Area A courses so no additional assessment work is needed.

Two out of three Area B GELOs (5 and 6) overlap neatly with IWAC assessment of ILO C (Quantitative Reasoning). The lower-division courses from which IWAC collects assessment data are all current Area B4 General Education Courses. However, IWAC currently collects assessment data at the "mastery" level from senior-level courses in each major, not from Area B General Education courses. To properly assess upper-division General Education outcomes, IWAC should work with the GE committee to supplement existing IWAC data collection with data from upper-division GE courses. (This data can be used to assess how ILOs are "reinforced," not just mastered, which will bolster the quality of assessment at Cal Maritime in general.)

One out of three Area E GELOs (15) overlaps neatly with IWAC assessment of ILO F (Information Fluency.) The other two Area E GELOs (13 and 14) may overlap with IWAC assessment of ILO D (Lifelong Learning). However, in the past IWAC has relied on the ELDP to perform assessment of ILO D; the only data used comes from the NSSE report. (This kind of self-assessment by students provides an interesting supplement to other kinds of institutional assessment work but is insufficient on its own.)

IWAC does not currently assess any Area C or Area D general education outcomes, nor does it assess Areas B 1-3 since Scientific Reasoning was removed as an ILO. But assessment work overlaps with the work of individual department program reviews:

- Area B1-3: Currently, some data is available in the 2018-2019 Department of Sciences and Mathematics Annual Program Report. The Department of S&M has four "Science Student Learning Outcomes" as part of their Program Learning Outcomes, of which three were assessed.
- Area C: In the 2018-2019 Department of Culture and Communication Annual Program Review, the department reports only assessing Program Learning Outcomes 1 and 2, which overlap with Area A outcomes, not Area C. In December 2019 the department had a planned an assessment "bootcamp" scheduled for April 23, 2020 (the "dead day after Spring 2020 final exams), but this was cancelled due to the sudden switch to online modalities due to the COVID-19 pandemic. The Department intends to assess
- Area D: The GSMA department has two program learning outcomes that align with Area D outcomes: "PLO 1: Gain an understanding of key theories, events, and issues in global maritime policy and core related fields" and "PLO 2: Understand the importance of environment and geography to maritime policy and related fields." These outcomes appear to differ from the Student Learning Objectives listed on their website.

2. Learning Outcomes Map (GELOs to Course Learning Outcomes)

The following table attempts to map GELOs to individual course learning outcomes. This table should be reviewed by the GE Committee and departments that currently offer the courses. Most of the learning outcomes included here were taken from "syllabi central." One chronic problem we still need to address at Cal Maritime is the fact that outcomes are inconsistent across CCRs and syllabi, and original paper copy CCRs for many courses are simply missing. After review by the committee and departments I hope that this list can be uploaded to the General Education Website, where it will serve as a central database of all General Education course learning outcomes.

I have included in the list of recommendations action items for both the GE Committee and departments. Because Cal Maritime appears to have no existing protocol governing the revision of course outcomes, it is up to the departments to assign the work of revising outcomes to the instructor of record or to work collaboratively. Modified outcomes should be submitted to the General Education Committee *and* Curriculum Committee so they can be formally recorded. (The existing CCR form does not include a space for learning outcomes.)

Area A: English Language Communication and Critical Thinking

A1 Oral Communication		
EO1100 Description: Students will develop proficiency in oral communication in English, examining communication from the rhetorical perspective and practicing reasoning and advocacy, organization, and accuracy.		
Course Number	**Course Learning Outcomes**	**GELO Mapping**
EGL 110	<u>Speech Communication</u> Multiple syllabi exist with different outcomes. In Spring 2020 a working group within C&C was established to revise and align the department's course-level learning outcomes to streamline assessment and ensure alignment between IWAC, GE, and Program-level assessment work. The new outcomes are derived directly from the AAC&U rubric for written communication: SLO 1: Sequence ideas and supporting materials in presentations using a clear organizational pattern SLO 2: Use language that is appropriate to the topic and audience SLO 3: Analyze how rhetorical choices impact the way information is communicated SLO 4: Identify the implicit ideas, beliefs, and conditions underlying spoken statements SLO 5: Employ delivery techniques (eg. posture, gesture, eye contact, and vocal expressiveness) to enhance the effectiveness of presentations SLO 6: Collect, analyze, and present a variety of information clearly SLO 7: Convey a central message to an audience	Course appears to align clearly with GELO 1 (oral communication). No action necessary.
EGL 120	<u>Technical Communication</u> Multiple recent syllabi exist with different course descriptions and course outcomes/objectives. Many of the outcomes are not measurable. Catalogue course description is vague: "Focuses on the communication aspects (oral, visual, graphical and written) germane to the engineering profession."	Recommendation: As Engineering majors satisfy their Area A1 Oral Communication requirement with this course, the outcomes should overlap with those of EGL 110. Additional outcomes may be added to address any visual, graphical, and written elements referenced in the catalogue description.

A2 Written Communication		
EO1100 Description: Students will develop proficiency in written communication in English, examining communication from the rhetorical perspective and practicing reasoning and advocacy, organization, and accuracy.		
Course Number	**Course Learning Outcomes**	**GELO Mapping**
EGL 100	<u>English Composition</u> Multiple syllabi exist with lengthy and learning outcomes, many of which could be reworded using Bloom's Taxonomy wording. In Spring 2020 a working group within C&C was established to revise and align the department's course-level learning outcomes to streamline assessment and ensure alignment between IWAC, GE, and Program-level assessment work. The last five of the new outcomes are derived directly from the AAC&U rubric for written communication: SLO1: Summarize texts accurately and comprehensively SLO2: Analyze written texts SLO3: Craft an argument in support of original ideas within the discipline and genre of a writing task SLO4: Demonstrate ability to consider audience, purpose, and context of written work SLO5: Use appropriate and relevant content in written work	Course appears to align clearly with GELO 2 (written communication). No action necessary.

	SLO6: Demonstrate awareness of conventions particular to a specific discipline and/or writing task (including conventions for organization, content, presentation, formatting, and stylistic choices) SLO7: Use high quality, credible, relevant sources to develop ideas. SLO 8: Use grammatically- and mechanically- correct language to clearly communicate ideas to readers	
EGL 102	<u>Stretch Composition II</u> Same outcomes as EGL 100	Course appears to align clearly with GELO 2 (written communication). No action necessary.

A3 Critical Thinking		
EO1100 Description: In critical thinking (Subarea A3) courses, students will understand logic and its relation to language; elementary inductive and deductive processes, including an understanding of the formal and informal fallacies of language and thought; and the ability to distinguish matters of fact from issues of judgment or opinion.		
Course Number	**Course Learning Outcomes**	**GELO Mapping**
EGL 220	<u>Critical Thinking</u> SLO 1: Identify the implicit ideas, beliefs, and conditions underlying a statement SLO 2: Analyze how rhetorical choices impact the way information is communicated SLO 3: Evaluate arguments and their evidence through a process of critical inquiry SLO 4: Distinguish sound arguments from faulty ones SLO 5: Distinguish between facts and opinions SLO 6: Recognize and refute fallacies of language and thought SLO 7: Employ valid inductive and deductive reasoning SLO 8: Demonstrate ability to explore texts, issues, and ideas comprehensively before formulating an opinion SLO 9: Systematically analyze one's own assumptions and relevant contexts when presenting a position SLO 10: Evaluate the strength of premises and conclusion in arguments (in both your arguments and other people's arguments) SLO 11: Demonstrate ability to collect and analyze reliable evidence in order to draw informed conclusions SLO 12: Advocate for ideas by composing well-reasoned arguments	Course appears to align clearly with GELO 3 (critical thinking). No action necessary.

Area B: Scientific Inquiry and Quantitative Reasoning

B1 Physical Science		
EO1100 Description: Students develop knowledge of scientific theories, concepts, and data about non-living systems.		
Course Number	**Course Learning Outcomes**	**GELO Mapping**
CHE 105	Introductory Chemistry SLO 1: Use theories, principles and models, in conjunction with the scientific method to analyze problems in chemistry. SLO 2: Describe, explain, and model chemical and physical processes at the atomic and molecular level in order to explain macroscopic properties. SLO 3: Solve quantitative problems in chemistry and demonstrate reasoning clearly and completely. Integrate multiple ideas in the problem-solving process. Check results to make sure they are physically reasonable. SLO 4: Understand how to identify environmental and health safety considerations of various chemical substances. SLO 5: Make connections between chemical theories and principles to real-world applications.	Course appears to align clearly with GELO 4 (scientific inquiry). No action necessary.
CHE 110	General Chemistry SLO 1: Solve quantitative chemistry problems and demonstrate reasoning clearly and completely. Integrate multiple ideas in the problem-solving process. SLO 2: Describe, explain and model chemical and physical processes at the molecular level in order to explain macroscopic properties and trends. SLO 3: Classify matter by its state and bonding behavior using the Periodic Table as a reference. SLO 4: Apply important theories such as the Kinetic Molecular Theory of Gases or the Quantum Mechanical Theory of the Atom to the solution of general chemistry problems.	Course appears to align clearly with GELO 4 (scientific inquiry). No action necessary.
CHE 205	Chemistry of Power Plant Processes (CHE 205-1 S20 Runyon) SLO 1: Understand the basic concepts of water chemistry. SLO 2: Describe, explain, and model chemical and physical properties of water and aqueous solutions at the molecular level in order to explain macroscopic properties. SLO 3: Understand basic analytical techniques used to assess water quality. SLO 4: Understand basic techniques of water treatment to remove undesirable constituents. SLO 5: Understand the basic processes pre-treatment and post-treatment of water utilized in plant processes.	Course appears to align clearly with GELO 4 (scientific inquiry). S&M Department should consider revising any outcomes that being with "understand" (which is not assessable) and replace them with "Blooms Taxonomy" words for assessment purposes.
NAU 330	Meteorology (NAU 330 F20 McNie) SLO1: Explain the composition and structure of the atmosphere. SLO2: Demonstrate an understanding of general atmospheric circulations and explain how it influences climate. SLO3: Diagnose and forecast synoptic and mesoscale phenomena. SLO4: Use outputs from numerical weather prediction models to develop a local/regional weather forecast. SLO 5: Demonstrate an understanding of the organizing principles of radiative transfer, cloud formation, and precipitation processes.	Course appears to align clearly with GELO 4 (scientific inquiry). No action necessary.

	SLO 6: Apply dynamic and thermodynamic principles and explain atmospheric stability, convection, and circulation. SLO 7: Apply fundamental meteorological skills to develop weather forecasts and shipboard observations for reporting to NWS.	
~~MSC 100~~ OCN 200	Oceanography I (OCN 200-1 F20 Cifuentes-Lorenzen) SLO 1: describe basic geological theories and fundamental principles behind forces that have shaped the Earth's structure. SLO 2: differentiate time and spatial scales associated to different geophysical processes. SLO 3: describe basic chemical properties of the ocean and explain ocean wide observations. SLO 4: differentiate between coastal and open ocean chemical properties of the water column. SLO 5: learn the basis of geochemical cycles that support life on Earth (e.g. Carbon Cycle).	Course appears to align clearly with GELO 4 (scientific inquiry). S&M Department should consider revising SLO 5, which is not assessable. Course also includes three objectives that seem more like outcomes (but would also require revision to replace "understand" with something more measurable.).
~~MSC 105~~ OCN 210	Oceanography II Note: MSC 105 syllabus *is* available on Syllabus central. Learning outcomes appear to align with GELO 4. S&M should confirm outcomes have remained the same since course was renamed. SLO 1: describe basic oceanographic phenomena such as large scale ocean circulation, including water mass formation and the wind driven circulation SLO 2: Describe basic upper ocean dynamics, including mixing and stratification. SLO 3: Describe the physical and biological variables affecting primary productivity	Course appears to align clearly with GELO 4 (scientific inquiry), although GELOs pulled from old version of the course (formerly MSC 105). Recommendations: S&M Department should revise outcomes to better align with GELO 4, which emphasizes the "application of scientific principles." It's obvious from the syllabus that the course does this, but the outcomes all involve "description" rather than application.
OCN 320	Oceans and Climate (OCN 320-1 F20 Cifuentes-Lorenzen) SLO 1: State basic mass, energy and momentum balances for the Earth-system. SLO 2: Understand key assumptions behind the main equations that describe global atmospheric and oceanic circulation patterns. Objective 1: Acquire an understanding of the global circulation patterns and the interconnection between ocean and atmosphere dynamics that drive global climate. Objective 2: To acquire an understanding of the main equations and basic balances used to describe the physics of global circulation. Objective 3: To acquire a basic understanding of the different spatial and temporal scales at play. Objective 4: Obtain a scientific perspective on climate change.	Course appears to align clearly with GELO 4 (scientific inquiry), although not all outcomes are assessable. (And some objectives seem more like outcomes if they included assessable language.) Recommendations: S&M Department should revise outcomes and objectives using language appropriate for assessment.
PHY 100	General Physics I Note: Multiple syllabi exist with different outcomes. (PHY 100-1 F20 Fairbanks) SLO 1: Add and subtract vectors. SLO 2: Understand and apply the fundamentals of Newtonian mechanics and kinematics SLO 3: Apply scientific reasoning to a variety of problems in physics	Course appears to align clearly with GELO 4 (scientific inquiry), although outcomes differ between sections. Recommendation: S&M Department should standardize learning outcomes across sections of the same course. (Instructors are free to add *additional* outcomes if they want to, but all sections of the same course should

	SLO 4: Use the mathematical tools associated with the physics taught in the course. SLO 5: Apply the concepts and laws of physics learned in this course to problems in physics and future coursework. (PHY 100-1 S20 Punglia) SLO 1: Understand physical science principles and their relationship to the physical universe. SLO 2 Use theories, principles and models, in conjunction with the scientific method to analyze problems in the physical sciences. SLO 3 Acquire and utilize mathematical and computational techniques to both analyze and comprehend problems in the physical sciences.	share the same fundamental outcomes.)
PHY 105	General Physics II (Outcomes taken from "course competencies" on the CCR submitted to GE Committee) SLO 1: Solve problems relating electric fields, charge, and electric potential. SLO 2: Analyze simple AC and DC electrical circuits with common components (resistors, capacitors, etc.). SLO 3: Apply Maxwell's equations to relate magnetic field, magnetic flux, electric potential, and moving charges. SLO 4: Solve problems using the principles of geometric optics (mirrors, lenses, etc.). SLO 5: Apply knowledge of electromagnetic waves to understand wave optics (diffraction gratings, thin films, etc.) SLO 6: Describe the wave-particle duality of light and its quantum nature. SLO 7: Apply the fundamental physics principles learned in the course to understand technology (motors, generators, telescopes, etc.).	Course appears to align clearly with GELO 4 (scientific inquiry). No action necessary.
PHY 120	Physics for Future Leaders (PHY 120-1 S20 Fairbanks) SLO 1: Identify and discuss the relevance of physics that broadly impact all aspects of society SLO 2: Identify and discuss the topics of physics presented that influence the decisions that governments and policy makers make, including current, and future societal, environmental and economic challenges. SLO 3: Solve quantitative physics problems and demonstrate logical reasoning clearly and completely. SLO 4: Discuss the importance and impact of physical sciences as it relates to public policy and governmental priorities.	SLO 3 aligns with GELO 4. SLOs 1, 2, and 4 appear to align with elements of Area D GELOs (although course does not currently have Area D designation).
PHY 200	Engineering Physics I Note: Multiple syllabi exist with different outcomes. Course has same outcomes as PHY 100. (PHY 200-1 F20 Fairbanks) SLO 1: Add and subtract vectors. SLO 2: Understand and apply the fundamentals of Newtonian mechanics and kinematics SLO 3: Apply scientific reasoning to a variety of problems in physics SLO 4: Use the mathematical tools associated with the physics taught in the course. SLO 5: Apply the concepts and laws of physics learned in this course to problems in physics and future coursework. (PHY 200-1 S20 Punglia) SLO 1: Understand physical science principles and their relationship to the physical universe.	Course appears to align clearly with GELO 4 (scientific inquiry), although outcomes differ between sections. Recommendation: S&M Department should standardize learning outcomes across sections of the same course. (Instructors are free to add *additional* outcomes if they want to, but all sections of the same course should share the same fundamental outcomes.)

	SLO 2 Use theories, principles and models, in conjunction with the scientific method to analyze problems in the physical sciences. SLO 3 Acquire and utilize mathematical and computational techniques to both analyze and comprehend problems in the physical sciences.	
PHY 205	Engineering Physics II (PHY 205 F20 Moradmand) SLO 1: Understand scientific principles and their relationship to the physical universe. SLO 2: Understand the fundamental concepts of electromagnetism. SLO 3: Use theories, principles, and models, in conjunction with the scientific method to analyze problems in science. SLO 4: Acquire and utilize mathematical and computational techniques to both analyze and comprehend problems in science. SLO 5: Become more proficient independent learners and effective communicators.	Course appears to align clearly with GELO 4 (scientific inquiry). S&M Department should consider revising any outcomes that being with "understand" (which is not assessable) and replace them with "Blooms Taxonomy" words for assessment purposes.

B2 Life Science		
EO1100 Description: Students develop knowledge of scientific theories, concepts, and data about living systems.		
Course Number	**Course Learning Outcomes**	**GELO Mapping**
~~MSC 205~~ OCN 100	Marine Biology (OCN 100-1 F20 Parker) SLO 1: Apply the scientific method and scientific reasoning to problems in the field of Marine Biology. SLO 2: Describe the diversity of life in the ocean. SLO 3: Query, capture and analyze biological oceanographic data from national databases. SLO 4: identify and assimilate information presented in scientific literature. SLO 5: Evaluate mainstream reporting of topics in marine biology.	SLOs 1 and 3 align clearly with GELO 4 (scientific inquiry). No action necessary.
~~MSC 210~~ OCN 110	Marine Ecology Note: MSC 210 syllabus *is* available on Syllabus central. Learning outcomes appear to align with GELO 4. S&M should confirm outcomes have remained the same since course was renamed. SLO 1: Look for, identify and describe patterns in nature. SLO 2: Develop testable alternative hypotheses for the causes of observed patterns. SLO 3: Design and carry out appropriate empirical tests of the predictions of hypotheses to explain observed patterns	Course appears to align clearly with GELO 4 (scientific inquiry), although GELOs pulled from old version of the course (formerly MSC 210).

B3 Laboratory Activity		
Course Number	**Course Learning Outcomes**	**GELO Mapping**
CHE 105L	Introductory Chemistry Lab SLO 1: Perform chemistry laboratory experiments using standard chemistry glassware and equipment and demonstrate appropriate safety procedures. SLO 2: Apply basic experimental techniques to verify scientific principles introduced in the lecture (CHE 105). SLO 3: Navigate safely and effectively around the chemistry lab. SLO 4: Document experimental approach and results in a laboratory notebook.	

	SLO 5: Communicate scientific results in written form.	
CHE 110L	General Chemistry Lab	
OCN 100L	Marine Biology Lab (Same as OCN 100)	SLOs 1 and 3 align clearly with GELO 4 (scientific inquiry). No action necessary.
OCN 110L	Marine Ecology Lab SLO 1: Think critically and apply the scientific process to ecological problems SLO 2: Provide clear thought process of developing and communicating science SLO 3: Analyze data and support conclusions with a sound scientific understanding.	Course appears to align clearly with GELO 4 (scientific inquiry), although GELOs pulled from old version of the course (formerly MSC 210L).
OCN 200L	Introduction to Oceanography Lab Note: No OCN 200 L syllabus available on Syllabi Central. MSC 100L is available. S&M should confirm outcomes have remained the same since course was renamed. SLO 1: synthesize basic oceanographic observations such as sea surface temperature and salinity. SLO 2: acquire a basic understanding behind sensor configuration and calibration. SLO 3: identify basic instrumentation and the limitations associated to sampling and data collection.	Course appears to align clearly with GELO 4 (scientific inquiry). S&M Department should consider revising SLO 2 to make the outcome measurable.
PHY 100L	General Physics Lab (PHY 100L-1 F20 Trevisan) Note: Multiple syllabi exist with different outcomes (although many have overlapping outcomes). The following come from one syllabus: SLO 1: Apply the scientific method and employ scientific reasoning to problems in physics SLO 2: Recognize the fundamental concepts of Mechanics. SLO 3: Use theories, principles and models to describe and predict the outcome of an experiment. SLO 4: Apply mathematical and computational techniques associated with laws of physics SLO 5: Use computational and problem-solving skills as tools for specific engineering applications. SLO 6: Successfully apply new concepts and techniques to practical problems in science and engineering.	Course appears to align clearly with GELO 4 (scientific inquiry), although outcomes differ between sections. Recommendation: S&M Department should standardize learning outcomes across sections of the same course and identify the outcomes that will be subject to GE assessment..
PHY 105L	General Physics II Lab (Outcomes derived from CCR submitted to GE Committee) SLO 1: demonstrate and explore the theoretical principles introduced in the lecture portion of the course [PHY 105]. SLO 2: collect, analyze, and effectively visualize data sets. SLO 3: summarize experimental results. SLO 4: pose, test, and revise basic hypotheses.	Course appears to align clearly with GELO 4 (scientific inquiry). No action necessary.

PHY 120L	Physics for Future Leaders Lab	**Syllabus not found.** Action required: S&M department should identify outcomes, map them to GELO 4, and submit to GE committee before assessment work commences.
PHY 200L	Engineering Physics I Lab	Course appears to align clearly with GELO 4 (scientific inquiry), although outcomes differ between sections. Recommendation: S&M Department should standardize learning outcomes across sections of the same course and identify the outcomes that will be subject to GE assessment.

B4 Mathematics/Quantitative Reasoning		
EO1100 Description: Through courses in Subarea B4 students shall demonstrate the abilities to reason quantitatively, practice computational skills, and explain and apply mathematical or quantitative reasoning concepts to solve problems.		
Course Number	**Course Learning Outcomes**	**GELO Mapping**
MGT 410	Quantitative Managerial Methods Starting in Fall 2019 the course title seems to have changes on the syllabus to "Financial Management." (MGT 410-1 FA 20 Shackman) SLO 1: Identify and explain the main commonly used quantitative tools used for managerial decision making SLO 2: Compute solutions to quantitative problems using spreadsheets and other computer applications SLO 3: Interpret quantitative output and provide managerial recommendations based on quantitative results	Course appears to align clearly with GELOs 5 and 6 (quantitative reasoning). No action necessary.
MTH 100	College Algebra and Trig Prior to Fall 2020 multiple syllabi exist with different course descriptions and course outcomes/objectives. In Fall 2020 the S&M Department uploaded a single syllabus for all sections of MTH 100 with standardized outcomes: SLO 1: model situations with linear equations and quadratic equations and solve problems by finding meaningful roots. SLO 2: determine the range and domain of the function. SLO 3: graph linear functions, quadratic functions, and polynomial functions. SLO 4: solve problems involving real and rational zeros of polynomials. SLO 5: convert between radian and degree measures. SLO 6: solve problems involving exponential and logarithmic functions. SLO 7: compute the values of trigonometric functions for key angles measured in degrees and radians. SLO 8: graph trigonometric functions. SLO 9: use the basic trigonometric identities to verify other trigonometric identities. SLO 10: solve problems using the law of sines and the law of cosines. SLO 11: Establish constructive attitudes about the value of math by highlighting its link to the real world. SLO 12: Develop skills necessary in problem-solving and reasoning. SLO 13: Strengthen broader skills like critical thinking, writing, clarity in verbalizing explanations, and collaborative skills.	Course appears to align clearly with GELOs 5 and 6 (quantitative reasoning). No action necessary.

MTH 107	Elementary Statistics Multiple recent syllabi exist with different course descriptions and course outcomes/objectives. (Gutkina has different outcomes than Pohlman, Moradmand, and Simons). (MTH 107-1 S20 Gutkina) SLO 1: Understand and create graphical summaries of data, and compute various descriptive measures of data. SLO 2: work with introductory probability, discrete and continuous probability distributions and sampling distributions. SLO 3: Construct confidence interval for population means and proportions. SLO 3: Conduct tests of hypotheses for population means and proportions. SLO 5. Find and interpret the relationship between two variables using linear regression. (MTH 103-2 S20 Polhmann / S19 Moradmand / F18 Simons) SLO 1: Analyze simple statistical and probability problems. SLO 2: Develop a vocabulary for decoding the jargon of statistical analyses. SLO 3: Learn how to use statistical software to aid in data analysis	Course appears to align clearly with GELO 4 (scientific inquiry), although outcomes differ between sections. Recommendation: S&M Department should standardize learning outcomes across sections of the same course and identify the outcomes that will be subject to GE assessment.
MTH 205	Calculus for Business Multiple recent syllabi exist with different course descriptions and course outcomes/objectives (MTH 205-1 F20 Setniker) SLO 1: Understand essential properties of limits, continuity, derivatives, and integrals. SLO 2: Apply basic rules of differentiation, differentials and derivatives to solve problems in business and economics. SLO 3: Comprehend the interplay between graphical, numerical and algebraic concepts and solve practical problems that require various differentiation techniques (e.g. product rule, quotient rule, chain rule). SLO 4: Graph functions and solve optimization problems using first and second derivative properties. SLO 5: Understand the concepts behind indefinite and definite integrals and their application to practical problems. SLO 6: Apply antidifferentiation techniques to problems that require integration. (MTH 205-1 F19 Gutkina) SLO 1: Understand essential properties of limits, continuity and derivatives. SLO 2: Apply basic rules of differentiation, differentials and derivatives to solve problems in business and economics. SLO 3: Comprehend the interplay between graphical, numerical and algebraic concepts and solve practical problems that require various differentiation techniques (e.g. product rule, quotient rule, chain rule). SLO 4: Graph functions and solve optimization problems using first and second-derivative properties.	Course appears to align clearly with GELO 4 (scientific inquiry), although outcomes differ between sections. Recommendation: S&M Department should standardize learning outcomes across sections of the same course and identify the outcomes that will be subject to GE assessment.
MTH 210	Calculus I Multiple recent syllabi exist with different course descriptions and course outcomes/objectives.	All sections of MTH 210 appear to align clearly with GELOs 5 and 6. However, outcomes differ between sections. Recommendation: S&M Department should standardize learning outcomes across sections of the same course.

MTH 211	Calculus II Multiple recent syllabi exist with different course descriptions and course outcomes/objectives..	All sections of MTH 211 appear to align clearly with GELOs 5 and 6. However, outcomes differ between sections. Recommendation: S&M Department should standardize learning outcomes across sections of the same course. (Instructors are free to add *additional* outcomes if they want to, but all sections of the same course should share the same fundamental outcomes.)
MTH 212	Calculus III Multiple recent syllabi exist with different course descriptions and course outcomes/objectives. (One section has over a dozen outcomes/objectives, another has two.)	All sections of MTH 212 appear to align clearly with GELOs 5 and 6. However, outcomes differ between sections. Recommendation: S&M Department should standardize learning outcomes across sections of the same course. (Instructors are free to add *additional* outcomes if they want to, but all sections of the same course should share the same fundamental outcomes.)
MTH 215	Differential Equations (MTH 215-1 S19 Simons) SLO1: Apply mathematical techniques and reasoning to solve problems in differential equations. SLO2: Create differential equations from word or application problems and analyze those equations by applying mathematical principles. SLO3: Understand practical aspects of differential equations. SLO4: Understand the benefits and limitations of applying mathematical techniques to problems in differential equations. SLO5: Use deductive reasoning and critical thinking to solve problems in differential equations.	SLOs 1 and 2 aligns with GELO 5. SLO 5 aligns with GELO 6. No action necessary. S&M Department should consider revising any outcomes that being with "understand" (which is not assessable) and replace them with "Blooms Taxonomy" words for assessment purposes.
NAU 205	Ship Stability Course Outcomes: At the successful conclusion of the course, the student should be able to analyze and calculate safe stability for general cargo vessels. This includes evaluation and formulation of ship's data for good transverse and longitudinal stability. The student will be able to determine the vessel's hull strength and damage stability in compliance with the vessel's Stability and Trim booklet and USCG approved automatic data-based cargo program. The student will be able to evaluate the vessel's stability during grain carriage.	Syllabus does not include a list of learning outcomes, but they can be deduced from the paragraph-long description. Course description indicates the course aligns with Area B4 outcomes. Recommendation: **MT Department** should create a separate list of learning outcomes and clearly align them with GELOs 5 and 6 to facilitate assessment.

Area C: Arts and Humanities

C1 Arts: Arts, Cinema, Dance, Music, Theater		
EO1100 Description: 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 [to visual arts, cinema, dance, music, and/or theater].		
Course Number	**Course Learning Outcomes**	**GELO Mapping**
EGL 195 EGL 225 EGL 395 HUM 115 HUM 120 HUM 215 HUM 395	Special Topics [C1 or C2 depending on topic] Creative Writing Special Topics [C1 or C2 depending on topic] Maritime Arts [may also count as Area E] Introduction to Visual Arts Introduction to Cinema Special Topics [C1 or C2 depending on topic] **In AY 2019-2020 the Department of Culture and Communication standardized learning outcomes across all Arts and Humanities Courses. Courses designated as C1 focus on visual arts and film and courses designated as C2 focus on literature and philosophy. Instructors may add additional learning outcomes, but all C1 classes must include the following:** SLO 1: Demonstrate ability to read and analyze a wide variety of artistic texts. SLO 2: Relate literary or cultural concepts, principles, terms, strategies, and styles to a range of texts. SLO 3: Analyze the relation between a text and its socio-political, historical, and cultural contexts. SLO 4: Demonstrate ability to express ideas clearly and creatively, both in writing and speech. SLO 5: Analyze works of philosophical, literary, aesthetic, and cultural importance. SLO 6: Evaluate aesthetic and cultural experiences subjectively as well as objectively.	Courses appear to align clearly with GELOs 7 and 8. All outcomes standardized across sections that count for the same GE requirement. No action necessary.

C2 Humanities: Literature, Philosophy, Languages Other than English (with cultural component)		
EO1100 Description: 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 [to literature, philosophy, and/or languages other than English if the courses do not focus solely on skills acquisition but also contain a substantial cultural component].		
Course Number	**Course Learning Outcomes**	**GELO Mapping**
EGL 200 EGL 305 EGL 309 EGL 310 EGL 315 EGL 320 EGL 330 EGL 340 EGL 345 HUM 325 HUM 350 HUM 380 HUM 395 HUM 400	Introduction to Literature 20th Century American Literature British Literature of the Sea U.S. Literature of the Sea World Literature of the Sea Literature of the Fantastic Literature and Psychology Multicultural Literature in America Literature and the Environment Globalization of Culture Maritime Culture Ethical Inquiry Special Topics Ethics **In AY 2019-2020 the Department of Culture and Communication standardize learning outcomes across all Arts and Humanities Courses. Courses designated as C2 focus on literature and philosophy and courses designated as C1 focus**	Courses appear to align clearly with GELOs 7 and 9. All outcomes standardized across sections that count for the same GE requirement. No action necessary.

	on visual arts and film. Instructors may add additional learning outcomes, but all C2 classes must include the following: SLO 1: Demonstrate ability to read and analyze a wide variety of literary, cultural, or philosophical texts. SLO 2: Relate literary or cultural concepts, principles, terms, strategies, and styles to a range of texts. SLO 3: Analyze the relation between a text and its socio-political, historical, and cultural contexts. SLO 4: Demonstrate ability to express ideas clearly and creatively, both in writing and speech. SLO 5: Analyze works of philosophical, literary, aesthetic, and cultural importance. SLO 6: Evaluate aesthetic and cultural experiences subjectively as well as objectively.	
LAN 110 LAN 115 LAN 120 LAN 125	Spanish I Spanish II Chinese I Chinese II **Instructors of Language classes can add additional outcomes related to language acquisition, but to be classified as C2 all Language classes must include the following three outcomes:** SLO X: Analyze the relation between texts and their cultural contexts. SLO Y: Analyze works of philosophical, literary, aesthetic, and cultural importance. SLO Z: Evaluate aesthetic and cultural experiences subjectively as well as objectively.	Courses appear to align clearly with GELOs 7 and 9. All outcomes standardized across sections that count for the same GE requirement. No action necessary.

Area D: Social Sciences

D Social Sciences: "units dealing with human social, political and economic institutions and behavior, and their historical background." (EO 1100 Revised)		
EO1100 Description: Students will develop an understanding of problems and issues from the respective disciplinary perspectives and will examine issues in their contemporary as well as historical settings and in a variety of cultural contexts. Students will explore the principles, methodologies, value systems and ethics employed in social scientific inquiry.		
Course Number	**Course Learning Outcomes**	**GELO Mapping**
CSL 120	Community Service Learning	Learning Outcomes Unknown. Action Required: **General Education Committee** should review syllabus and learning outcomes to determine if Area D designation is appropriate.
CSL 210	Dying: Final Stage of Living (CSL 210-1 S20 Marocchino): SLO 1: At the end of this service-learning class, students will have developed a more positive attitude towards death, viewing it less as an adversary and more as a defining part of life whose sense of finiteness makes real meaning possible. SLO 2: Students will be able to better understand and articulate the emotional and spiritual needs of the elderly and the dying and feel comfortable in assisting others in the process of facing death. SLO 3: Students will have gained a unique opportunity to reflect on the meaning and purpose of their own lives by working through their own personal resolution of the dying process. SLO 4: Students will have moved closer to "coming to terms" with the idea of death, each in his or her own personal manner, as a means to having healthy life experiences	**Learning outcomes do NOT clearly align with Area D outcomes.** Action Required: **C&C Department** should consider revising SLO 2 and SLO 3 to more clearly address societal conventions around death and dying. **General Education Committee** should review syllabus and revised learning outcomes to determine if Area D designation is appropriate.
ECO 100	Macroeconomics (ECO 100 F19 Kamdar): SLO 1: demonstrate a basic understanding of economic news as reported in newspapers and magazines and other news media SLO 2: explain and describe the significance of major macroeconomic indicators in relation to the business cycle SLO 3: use tools of macroeconomic analysis to predict the impact of changes in fiscal and monetary policies on the economy SLO 4: examine the relationship of the United States to the global economy	SLOs 1, 2, and 4 align with GELOs 10 and 11. SLO 3 aligns with GELO 12. No action necessary.
ECO 101	Microeconomics (ECO 101 S20 Neumann): SLO 1: Apply knowledge of economic principles to explain policy issues and economic events reported in the news SLO 2: Explain how markets and other governance structures organize core economic activities, such as production and consumption SLO 3: Compare and contrast the conditions under which government intervention in the market can either promote or impede efficient resource allocations and welfare.	Outcomes align with GELOs 10 and 11. No action necessary.
ENG 310	Engineering Ethics SLO 1: Identify the ethical challenges facing engineers working within organizations SLO 2: Describe the social responsibility of engineers	Outcomes align with GELOs 10 and 11. No action necessary.

	SLO 3: Explain the social impact of engineering design and disasters SLO 4: Apply ethnical concepts to the discipline and practice of engineering SLO 5: Review strategies for dealing with ethnical issues students will likely face in the workplace	
GMA 100	International Relations (GMA 110-1 S20 Wade): SLO 1: Understand the basic structure and functions of the international system SLO 2: increase their knowledge of the historical foundations of the significant issues in international relations today SLO 3: recognize and understand the processes of a wide variety of interactions among sovereign states and non-state actors SLO 4: produce a regional report and international politics analysis paper utilizing multiple academic and reputable sources SLO 5: advance the learning objectives set forth by the Department of Global Studies and Maritime Affairs SLO 6: further develop the analytic skills and information fluency critical to the development of successful students at the university level	SLOs 1, 2, and 3 align with GELOs 10 and 11. SLOs 3 and 4 may align with GELO 12 with some revision. Recommendation: Some of the learning outcomes appear to be objectives (eg. produce a regional report). **GSMA Department** may want to revise outcomes to facilitate assessment.
GMA 105	Ocean Politics (GMA 105-1 F20 Wade) SLO1: Identify and apply constructs that help you understand economic, security and environmental issues in the maritime world SLO2: Identify the major issues occurring in the maritime world today and describe them accurately SLO3: Understand the pros and cons of various solutions proposed to deal with current maritime problems and be able to assess and articulate these solutions SLO4: Understand the inter-disciplinary nature of maritime issues and the fact that they occur in a cross-cultural and globalized context SLO5: Write clear, grammatical, well-organized assignments and term paper	SLOs 1, 2, 3, and 4 align with GELOs 10 and 11. SLO 1 and 3 may align with GELO 12. Recommendation: GSMA Department may revise some of the learning outcomes to replace "understand" with Bloom's Taxonomy language to facilitate assessment and directly map each outcome onto a specific GELO.
GMA 215	Comparative Politics (GMA 215-1 F20 Tsuma): SLO 1: Identify and compare major political theories, regimes, issues and ideas; SLO 2: Analyze and synthesize facts and concepts in the context of current political issues and data; SLO 3: Critique and evaluate information and information sources; SLO 4: Evaluate the complexity of political issues, and the fact that they occur in a cross cultural and globalized context on multiple spatial; SLO 5: Communicate clear and comprehensive written, visual, and oral arguments; SLO 6: Understand the importance of cultural diversity and cross-cultural understanding	SLOs 1 and 4 align directly with GELOs 10 and 11. SLO 2 aligns directly with GELO 12. No action necessary.
GMA 225	SE Asia-Maritime/Mainland (GMA 225-1 F20 Meredith) Course syllabus does not include a list of outcomes but includes the following four objectives: SLO 1: be familiar with the international politics and key security issues affecting Southeast Asia, its regional seas, the states on its littoral, and island states.	SLOs align with GELOs 10 and 11. Recommendation: GSMA Department should revise outcomes/objectives that being with ""be familiar/be aware/be knowledgeable" and replace them with "Blooms Taxonomy" words for assessment purposes.

	SLO 2: be able to describe the changing roles of various nations of Southeast Asia in regional interaction, including political, environmental, and economic. SLO 3: be aware of the potential for inter-state cooperation and conflict in this region of growing strategic importance. SLO 4: be knowledgeable about the climate regimes, environmental issues, and diverse habitats of the region.	
GMA 235	GIS Mapping and Spatial Analysis (GMA 235- S 20 Sammler): SLO1: Explain fundamental elements of maps SLO2: Evaluate map generalization, representation, and cartographic error; SLO3: Critique mapping practices, techniques, data, and visual communication SLO4: Communicate clear and comprehensive visual arguments; SLO5: Create interesting and unique digital and printable maps	SLO 3 may align with GELO 12. **But Existing course outcomes do NOT clearly align with other Area D GELOs**, although may do so when revised/explained. Action required: **GSMA Department** should revise learning outcomes and map them clearly onto Area D GELOs. **GE Committee** should reevaluate course classification after revision of outcomes.
GMA 240	World Geography (GMA 2401- S20 Meredith): SLO 1: Spatially identify pattern and process on a global scale. SLO 2: Write a cogent regional analysis paper. SLO 3: Gain confidence in discussion of current events. SLO 4: Understand how local conditions affect global outcomes and vice versa. Objective 1: Identify key characteristics and features of the various regions of the world, gaining a better understanding of human-environmental interactions. Objective 2: Place current events within a broader context of political, historical, and geographic patterns.	SLOs 1 and 4 and Objectives 1 and 2 clearly align with GELOs 10 and 11. Some of the outcomes appear to be objectives (eg. "write a cogent regional analysis paper"). GSMA department may wish to make some minor revisions and turn objectives 1 and 2 into outcomes.
GMA 250	Environmental Policy (GMA 250-1 F20 Wade) SLO 1: Identify the processes that generate and implement environmental policy in the United States and within international regimes SLO2: Understand the policy-making process and its impact on domestic politics in the United States and international relations SLO3: Critically analyze current domestic and international environmental challenges in context of their theoretic and institutional implications SLO4: Understand the linkages between the historic evolution of domestic and international environmental policy, the contemporary environment and potential future developments SLO5: Write clear, grammatical, well-organized assignments and term paper.	SLOs 1, 2, and 4 align with GELOs 10 and 11. SLO 3 seems to align with GELOs 11 and 12. Recommendations: GSMA department may want to revise outcomes to facilitate assessment: SLO 5 ("write a paper") is an objective, not an outcome. The course also includes under the list of learning objectives things that could be moved to "outcomes" with some editing: (eg. "analyze the most significant domestic and international challenges facing contemporary society" or "[explain] the role of ethics in personal and societal decision making as they relate to issues of environmental policy" or "[describe] the basic structure and functions of the United States and international environmental policy-making institutions"
GMA 300	US Foreign Policy (GMA 300-1 F20 Tsuma) SLO 1: Apply the major theories of American foreign policy-making to real world problems SLO 2: Describe the central actors and institutions involved in American foreign policy making	SLOs 1 and 2 align with GELOs 10 and 11. No action needed.

	SLO 3: Discuss how American national interests have evolved throughout the nation's history.	
GMA 310	The Geopolitics of Energy	**Syllabus not found.** Action required: GSMA department should identify outcomes, map them to Area D GELOs, and submit to GE committee before assessment work commences.
GMA 315	China and its Neighbors (GMA 315-1 S19 Meredith) SLO 1: Articulate well-reasoned written and verbal explanations of current issues related to China and its neighbors, based on analytical reading and questioning. SLO 2: Apply unbiased, cross-cultural understanding to issues of global significance. SLO 3: Recognize the importance of the environment and geography as integral to the development of China's culture, economy, and politics. SLO 4: Identify and evaluate key events and issues in Chinese political history which affect present-day relations with its partners and adversaries. SLO 5: Demonstrate the analytical research skills necessary to complete a research essay at the upper-division college level, including locating appropriate academic sources.	SLOs appear to align with GELOs 10 and 11. No action needed.
GMA 320	Ocean Environmental Management (GMA 320-1 S20 Sammler): SLO 1: Explain specific management regimes of given case studies SLO 2: Summarize journal articles, legal and scientific documents SLO 3: Synthesize information from multiple sources into a single report SLO 4: Communicate clear and comprehensive written, oral, and visual arguments SLO 5: Utilize compelling communication strategies like visual images, charts and data SLO 6: Critique ocean management practices	SLOs appear to align with Area D GELOs although may need some revising and more intentional mapping. (SLOs 1, 2 and 4 seem like they could be revised to align with GELO 12. SLO 6 seems like it could align with GELOs 10 and 11.)
GMA 325	Indian Ocean Rim	**Only one syllabus found on Syllabi Central (offered Fall 2017). File would not load.** Action required: GSMA department should identify outcomes, map them to Area D GELOs, and submit to GE committee before assessment work commences.
GMA 330	Maritime Security (GMA 330-1 S20 Malaquias): SLO 1: Use both the analytical and practical ("hands on") tools to conduct in-depth analysis of current maritime security issues SLO 2: Develop your personal expertise on these issues SLO 3: Experience and understand, as much as possible, a career setting where you are a maritime security analyst, rather than a classroom setting	Currently only SLO 1 aligns with Area D GELOs (although an argument could be made for it aligning with all three) Course Objectives include references to "international relations theories relevant to state security" and "current concerns in maritime terrorism […] piracy, etc." "state threats to maritime security," "understand role of ethics in personal and societal

		decision making," and other things that align with Area D GELOs. Recommendation: **GSMA Department should** revise learning outcomes (blending with some existing objectives) and clearly align them with Area D GELOs to facilitate assessment.
GMA 335	Maritime California (GMA 335-1 F20 Wade) SLO 1: Understand the institutions, actors, and processes that generate and implement state and local maritime policy in the State of California SLO 2: Critically analyze the contemporary challenges and opportunities facing the maritime components of the State of California SLO 3: Critically analyze the historic and contemporary maritime policies of the State of California and their impact on the state, country and international system SLO 4: Increase knowledge of the current structures and functions of the government of California in the context of their federal and local relationships SLO5: Develop ability to work effectively in a virtual learning environment	SLOs 1, 2, and 4 align with GELOs 10 and 11. No major action needed. (As with other outcomes, GSMA may want to revise outcomes to replace phrasing like "understand" or "increase knowledge of" with assessable language.
GMA 340	International Migration (GMA 340-1 F18 Meredith) Student Learning Outcomes (SLO) SLO 1: Assess and analyze the migration policies held by different states around the world. SLO 2: Apply migration theory to migration current events within the maritime realm. SLO 3: Cooperate effectively in team environments. Objective 1: Understand the different types of migrants and the push and pull factors that motivate populations to migrate from one location to another. Analyze how these factors have changed throughout history. Objective 2: Analyze the political, economic, and social implications of population movements from one location/society into another. Objective 3: Examine the historical and contemporary challenges of population migrations and how these challenges have been addressed by states and the international community.	Outcomes and Objectives appear to align with GELOs 10 and 11, as do the three objectives. SLO 1 may align with GELO 12. GSMA department may want to revise and include the objectives as outcomes.
GMA 350	Political Geography (GMA 350-1 F20 Meredith) SLO 1: Identify major theories and concepts that help to understand the political geography of the world SLO 2: Describe the major global issues that affect the world today, and the role that geography plays in political outcomes SLO 3: Relate the complexity and inter-disciplinary nature of geopolitical issues, and the fact that they occur in a cross-cultural and globalized context on multiple spatial and temporal scales; SLO 4: Apply abstract concepts to active or hypothetical situations in the world SLO 5: Produce an analysis research paper utilizing multiple academic sources	SLOs 1, 2, and 3 align with GELOs 10 and 11. SLOs 4 (and potentially 5, if rephrased) may align with GELO 12. GSMA Department may want to revise SLO 5 to map clearly onto GELO 12.

GMA 355	Cross-Cultural Competence (GMA 355-1 S19 Meredith) Syllabus does not include a list of learning outcomes but includes a list of goals and competencies: Course Goals 1: Identify and evaluate key issues in cross-cultural communication which affect present-day relations between communities, nations, and the world; Course Goal 2: Think critically about human institutions and their importance, learning about psychological, social, and cultural processes and how they are constructed Course Goal 3: Recognize and appreciate the diversity of cultural expression in the context of shared, human experience of daily life, including worldviews, languages, religions, musical expression, and cuisine. Course Goal 4: Understand the importance of cross-cultural competence in all career options in the twenty-first century	Course description focuses on development of skills [course is also approved as area E]. Course Goal 1 and 2 may align with GELOs 10 and 11. Action required: GSMA department should identify outcomes, map them to Area D GELOs, and submit to GE committee before assessment work commences.
GMA 365	Polar Politics (GMA 365-1 S20 Nincic): SLO 1: Use both the analytical and practical ("hands on") tools to conduct in-depth analysis of current political issues in the polar regions SLO 2: Develop your personal expertise on these issues SLO 3: Experience and understand, as much as possible, a career setting where you are a polar analyst, rather than a classroom setting	Currently only SLO 1 aligns with Area D GELOs. Course objectives reference understanding of political conflict, identifying key economic resources in Arctic, environmental issues "within a theoretical and historical-legal context," "the balance of power framework." Recommendation: **GSMA Department** should revise learning outcomes (blending with some existing objectives) and clearly align them with Area D GELOs to facilitate assessment.
GMA 405	International Maritime Organizations (GMA 405-1 F20 Tsuma) SLO 1: Understand institutional theory and the functioning of international institutions SLO 2: Critically analyze contemporary international institutions and evaluate their impact on member states and the international system as a whole SLO 3: Understand all major, contemporary maritime institutions and how they impact member states and the international system SLO 4: Increase their knowledge of the United Nations Convention on the Law of the Sea (UNCLOS) treaty and the major conventions of the International Maritime Organization (IMO), specifically SLO 5: Continue to develop their ability to work effectively in team environments	SLOs 1, 3, and 4 appear to align with GELO 10. SLO 2 aligns with GELO 11. Some existing course objectives on the syllabus may be revised into outcomes to align with GELO 12.
GOV 200	American Government (GOV 200-1 F19 Metz): Course Objectives and Assessment Goals: This course surveys the American political system. We will use political theory as well as historic and current events to understand the structure and processes of American government. Our class will evaluate the purposes of government and how its structural framework meets or fails to achieve these purposes. We will emphasize the pluralistic aspects of our political system as well as how the American political system operates to balance majority and	Syllabus does not include a list of learning outcomes, but they can be deduced from the paragraph-long description of course objectives. Course description indicates the course aligns with Area D outcomes, notably by considering the relationship between political institutions and individuals and analyzing politics and policy.

	minority interests. In particular, we will explore how political actors such as public opinion, the media, interest groups, and political parties seek to influence the political system through mobilization and participation. We will give special attention to elections and voting and look at California as a priority among case studies of state government and federalism. Lastly, we will look at how political institutions operate and interact with each other and with political groups to produce domestic and foreign policy. By the end of the course, students should feel comfortable and competent discussing, writing, and interpreting primary and secondary source materials concerning America's political system and its policy decisions. Students should be able to display these skills through in-class discussion, exams, and an analytical term paper.	Recommendation: **GSMA Department** should create a separate list of learning outcomes and clearly align them with Area D GELOs to facilitate assessment.
HIS 100	US History (to 1877) Outcomes included here are from the revised CCR approved by the GE Committee in December 2020. The specific course goals are to develop students' ability to: Students will demonstrate their ability to: SLO 1: Discuss, interpret, and analyze primary and secondary source material concerning American history. SLO 2: Analyze how race and racism have informed the experience and recording of American history. SLO 3: Describe relationships between indigenous and imported cultures in American society. SLO 4: Consider the effects of settler colonialism from the perspective of indigenous and African-American populations in American history. SLO 5: Examine examples of indigenous resistance and sovereignty in the contest of westward expansion, and African-American models of resistance individually and collectively through the antislavery movement.	Course aligns with Area D outcomes, notably by examining the way American social, political, and economic institutions impact "the lives of ordinary people," and analyzing social issues in historical context. SLOs and objectives align with Area D GELOs. No action necessary.
HIS 101	US History (from 1877) Outcomes included here are from the revised CCR approved by the GE Committee in December 2020. Students will demonstrate their ability to: SLO 1: Discuss, interpret, and analyze primary and secondary source material concerning American history. SLO 2: Analyze how race and racism have informed the experience and recording of American history. SLO 3: Describe models of society and culture among immigrant cultures in American society. SLO 4: Examine effects of imperialism on American economic and military expansion in the American west and in the Caribbean and Pacific. SLO 5: Consider the growth of state and federal power and the ways it disproportionately affects African-American and Latino- and Latina-American populations. SLO 6: Compare models of civil rights movements in terms of racial and social justice, including methods of non-violence, liberation, and resistance.	Course aligns with Area D outcomes, notably by examining the way American social, political, and economic institutions impact "the lives of ordinary people," and analyzing social issues in historical context. SLOs and objectives align with Area D GELOs. No action necessary.
HIS 300	Maritime History of the US (HIS 300-1 S20 Metz): Course Objectives and Assessment Goals: This course examines the story of American history through a maritime lens from 1450 to	Syllabus does not include a list of learning outcomes, but they can be deduced from the paragraph-long description of course objectives. Course description indicates the

	the present. We begin with the emerging role of empire, technology, and regionalism in early exploration and settlement of the Americas. We will look at maritime dimensions behind how and why an independent United States emerged from the European contest for North America. An examination of economy, society, and politics over maritime issues deepens America's story of growth in the antebellum and post-civil-war era, and imperial, industrial, and military growth transform America and the world in the twentieth century. An examination of the lives of ordinary people as well as the actions of national leaders provides deeper understanding on how previous generations lived and acted, and of how historians reconstruct the past. A wide variety of topics discussed will include native peoples and European settlement in coastal and inland waterways; trade, fi shing, and English colonial growth; transatlantic military and economic contest; maritime warfare in the Revolution through War of 1812; technology and the market revolution in antebellum maritime life; the Pacific, whaling, and western coastal settlement; industrialization and maritime growth in the gilded age; imperialism and transformation of US military and commerce in the early twentieth century; fi sheries and ecological transformations; the world wars and post war commercial and military implication for US maritime development. By the end of the course, students should feel comfortable and competent discussing, writing, and interpreting primary and secondary source material concerning American maritime history from 1450 to the present. You should be able to display these skills via in-class discussion, essay exams, and in a research term paper.	course aligns with Area D outcomes, notably by considering the relationship between social, economic, and political institutions and individuals. Recommendation: **GSMA Department** should create a separate list of learning outcomes and clearly align them with Area D GELOs to facilitate assessment.
HIS 305	The World Since 1500	**Syllabus not found.** Action required: GSMA department should identify outcomes, map them to Area D GELOs, and submit to GE committee before assessment work commences.
HIS 315	World Maritime History I	**Syllabus not found.** Action required: GSMA department should identify outcomes, map them to Area D GELOs, and submit to GE committee before assessment work commences.
HIS 316	World Maritime History II	**Syllabus not found.** Action required: GSMA department should identify outcomes, map them to Area D GELOs, and submit to GE committee before assessment work commences.
LDR 210	Foundations of Leadership [may also count as Area E] (LDR 210 Sp18 Berkana-Wycoff) SLO 1: Use leadership theories and models to understand and analyze the leadership practices of recognized leaders. SLO 2: Effectively apply a variety of leadership skills to personal, interpersonal, and group leadership experiences SLO 3: Articulate an awareness of self, as it pertains to leadership, including personal leadership paradigms and styles of thinking, feeling, and acting.	**Learning outcomes do NOT clearly align with Area D outcomes.** Action required: Instructor should identify outcomes, map them to Area D GELOs, and submit to GE committee before assessment work commences.

Area E: Lifelong Learning and Self-Development

E Lifelong Learning: "Courses in this area shall focus on the development of skills, abilities and dispositions." (EO1100 Revised)		
EO1100 Description: This requirement is designed to equip learners for lifelong understanding and development of themselves as integrated physiological, social, and psychological beings. Physical activity may be included, if it is an integral part of the study elements described herein. Content may include topics such as student success strategies, human behavior, sexuality, nutrition, physical and mental health, stress management, information literacy, social relationships and relationships with the environment, as well as implications of death and dying or avenues for lifelong learning.		
Course Number	**Course Learning Outcomes**	**GELO Mapping**
CSL 120	Community Service Learning [may also count as Area D]	**Syllabus not found.** Action required: Instructor should identify outcomes, map them to Area E GELOs, and submit to GE committee before assessment work commences.
CSL 210	Dying: Final Stage of Living (CSL 210-1 S20 Marocchino): SLO 1: At the end of this service-learning class, students will have developed a more positive attitude towards death, viewing it less as an adversary and more as a defining part of life whose sense of finiteness makes real meaning possible. SLO 2: Students will be able to better understand and articulate the emotional and spiritual needs of the elderly and the dying and feel comfortable in assisting others in the process of facing death. SLO 3: Students will have gained a unique opportunity to reflect on the meaning and purpose of their own lives by working through their own personal resolution of the dying process. SLO 4: Students will have moved closer to "coming to terms" with the idea of death, each in his or her own personal manner, as a means to having healthy life experiences	Course appears to align with Area E description, which explicitly mentions "implications of death and dying." Outcomes are not currently assessable. Action required: Instructor should identify outcomes, map them to Area E GELOs, and submit to GE committee before assessment work commences.
GMA 355	Cross-Cultural Competence (GMA 355-1 S19 Meredith) Syllabus does not include a list of learning outcomes but includes a list of goals and competencies: Course Goals 1: Identify and evaluate key issues in cross-cultural communication which affect present-day relations between communities, nations, and the world; Course Goal 2: Think critically about human institutions and their importance, learning about psychological, social, and cultural processes and how they are constructed Course Goal 3: Recognize and appreciate the diversity of cultural expression in the context of shared, human experience of daily life, including worldviews, languages, religions, musical expression, and cuisine. Course Goal 4: Understand the importance of cross-cultural competence in all career options in the twenty-first century	Course appears to align with Area E description, which explicitly mentions "social relationships." Action required: Instructor should create outcomes out of the existing goals and competencies, map them to Area E GELOs, and submit to GE committee before assessment work commences.
HUM 115	Maritime Arts [may also count as Area C1] (HUM 115-1 F20 Hartman) In addition to the C1 outcomes, course includes the following objectives: Objective 1: Apply cultural, historical, and political awareness to the creative practice. Objective 2: Use artwork and analysis as a gateway to understanding cultural traditions, artistic movements, and mediums. Objective 3: Articulate one's views clearly and persuasively through visual analysis and critique	Objective 1 aligns with GELO 14. Unclear how course aligns with GELOs 13 and 15. Action required: Instructor should identify outcomes, map them to Area E GELOs, and submit to GE committee before assessment work commences.

	Objective 4: Integrate conceptual understanding of artworks and mediums into projects Objective 5: Connect creative endeavor with academic rigor Objective 5: Improve overall sense of drawing and self-expression skills while producing new artwork.	
LDR 210	Foundations of Leadership [may also count as Area E] (LDR 210 Sp18 Berkana-Wycoff) SLO 1: Use leadership theories and models to understand and analyze the leadership practices of recognized leaders. SLO 2: Effectively apply a variety of leadership skills to personal, interpersonal, and group leadership experiences SLO 3: Articulate an awareness of self, as it pertains to leadership, including personal leadership paradigms and styles of thinking, feeling, and acting.	SLO 2 aligns with GELO 14. Unclear how course aligns with GELOs 13 and 15. Action required: Instructor should identify outcomes, map them to Area E GELOs, and submit to GE committee before assessment work commences.
NAU 103	Introduction to Marine Transportation SLO 1: demonstrate competence in the concepts and technologies of international marine transportation SLO 2: demonstrate effective communication skills SLO 3: Understand one's relationship to, and role in, the maritime industry from a psychological, sociological and physiological perspective. (GELO 13, 14). SLO 4: Identify, access, and evaluate different sources of information. (GELO 15)	In the CCR the MT department already mapped SLO 3 onto GELOs 13 and 14 and SLO 4 onto GELO 15. No action required. MT department may want to revise SLO 3 to replace "understand" with assessable language.

VI. Recommendations

1. **Create a comprehensive Assessment Policy to minimize duplicate work across units and consolidate disparate assessment efforts across campus.**
   Currently IWAC is the university-wide assessment council responsible for assessing institution-wide learning outcomes. As detailed above, there is significant overlap between approximately half of the institution-wide outcomes and General Education outcomes, but no coordination between IWAC and the General Education committee. Individual units on campus (ranging from departments to programs like the ELDP) also assess learning outcomes that align with some General Education outcomes, but data is not shared between units. The Administration and Faculty Senate should work together to establish a policy and procedures regarding assessment across overlapping campus units. Such a plan will need to stipulate who is responsible for creating and implementing the General Education assessment plan and what role the General Education committee plays in assessment.

2. **Standardize the Academic Catalog to use language consistent across CSU campuses.**
   Currently the Academic Catalog organizes General Education courses under the title of "Electives." (In addition to being inconsistent with language across the CSU, the list is confusing because it includes the American Institutions Elective as separate from Area D, even though they are one and the same in practice.) The Catalog, University website, and all corresponding documents should be updated to change this list to "General Education Curriculum." Under each General Education sub-area should appear a list of GE-designated courses. In circumstances where a GE requirement is met by sequence in major, the course sequence should appear with an asterisk clearly explaining that it is restricted to a particular major. The American Institutions sequence should be clearly classified as a "graduation requirement" but nested under Area D courses.

3. **Revise Standing Committee By-Laws (to set term limits and clarify criteria for subject area expert classification).**
   Currently no term limits and "expertise" is not clearly defined for Subject Area Experts. In practice the criteria for appointment as a subject area expert is (at minimum) a PhD in a subject area discipline (or closely related field) and ideally someone who is an active scholar, up to date with research and pedagogy in their respective fields. [Lifelong learning is tricky since it isn't an academic discipline but given the historically the Area E rep has been a librarian.] The Committee may also want to revise membership to designate responsibility for Area F. This may present a problem since Cal Maritime has no faculty members with expertise in Ethnic Studies. Accordingly, the committee may wish to draft rules about seeking external review of new courses in this area.

4. **Bring all majors into compliance.**
   While most majors are taking steps to become compliant, the process has been slow. The Faculty Senate, in conjunction with the Office of the Provost, should set a clear deadline for curriculum revisions. The university has a WASC Interim Report due in Spring 2023. All majors will ideally be compliant before that date.

5. **Review Course Designations for GE Courses missing Original CCRs**
   The GE Committee should identify any courses that are currently designated as "GE" but fail to satisfy any of the relevant learning outcomes. Instructors/departments should have a chance to revise/resubmit the CCR so that courses may be reclassified without disruption to students.

6. **As described in Part V, Section 2,** course learning outcomes are inconsistent across CCRs and syllabi, and original paper copy CCRs for many courses are simply missing. This makes the work of assessment difficult. I recommend that Departments and the GE committee review the map of GELOs to SLOs at the course level. After review, the list should be uploaded to the General Education Website, where it will serve as a central database of all General Education course-level learning outcomes.

7. **Appoint designated General Education members to IWAC to coordinate GE Assessment.**
   In Fall 2020 the GE committee discussed options for GE program assessment. Consensus was that the GE Committee should oversee/guide the assessment of GE courses, but that the actual assessment will be done by instructors of record (following the model of IWAC) with GE subject area experts in charge of norming sessions. The GE committee should report directly to IWAC and will work in tandem with IWAC to avoid duplicating work (particularly since so many of the General Education outcomes align with Institution-Wide ones).

8. **Coordinate/Centralize Efforts between IWAC and General Education Assessment**
   (see Part III, Section 2: Alignment with Institution-Wide Learning Outcomes and Part V, Section 1: Current Practices)
   - Area A: No additional assessment work is needed. (All IWAC data is collected from EGL 100 (A2), EGL 110 (A1), and EGL 220 (A3). If the Curriculum Committee and Chancellor's Office approve the ME Department's request to meet A1 in major, they will be responsible for assessing artifacts from major courses and providing data to IWAC.
   - Area B1-4: The GE Committee should work with instructors of B1, B2, and B3 General Education courses to gather data to assess Scientific Inquiry.
   - Area B4: No additional work is needed at the lower-division level. But additional work is needed to assess upper division courses. To properly assess any upper-division B4 General Education outcomes, IWAC should work with the GE committee to supplement existing IWAC data collection with data from upper-division GE courses. This data can be used to assess how ILOs are "reinforced," not just mastered, which will bolster the quality of assessment at Cal Maritime in general.
   - Area C: The Department of Culture and Communication should reschedule the assessment workshop cancelled in April 2020 and identify a rubric for assessing Area C courses.
   - Area D: As reported in Part III, Section 3, the GSMA department Student Learning Objectives (aka Program Learning Outcomes) have been mapped onto ILOs but not GELOs. They may wish to break up PLO 1 "Disciplinary-specific Knowledge" into additional outcomes that align with Area D GELOs. Given that Area D courses are taught in other departments, GSMA should work cross-departmentally with other faculty in the social sciences (notably in IBL) to coordinate a rubric.

- Area E: As described earlier in this report, only one Area E GELO overlaps with IWAC assessment of ILO F (Information Fluency.) The other two Area E GELOs (13 and 14) may overlap with IWAC assessment of ILO D (Lifelong Learning). In the past IWAC has relied on data from the NSSE report. (This kind of self-assessment by students provides an interesting supplement to other kinds of institutional assessment work but is insufficient on its own.) If Lifelong Learning is to remain an institution-wide learning outcome, IWAC will need to revise this issue anyway. If it does not remain an ILO, the GE Committee will need to create a rubric for assessment of GELOs 13 and 14.

9. **Finalize a Timetable for GE Assessment to Begin**
IWAC Assessment operates on a 4 year cycle. To minimize duplicate work, GE assessment should work in parallel, cycling assessment of GE outcomes at the same time as IWAC outcomes.

<u>SUMMER 2021: Begin GE Assessment (GELOs 1, 2, 4, and 5)</u>

- ILO C Quantitative Reasoning is currently in Year One: Assessment Tool Design. IWAC recommended no modifications to the existing rubric. This summer IWAC should recruit one additional representative to coordinate GE assessment of Area B4 (GELOs 4 and 5) to begin the data collection process in Fall 2021.
- ILO A Communication is currently in Year Four: Implementation of Recommendations. That means that this summer will kick off Year One: Assessment Tool Design. This summer IWAC should make sure to consult with instructors of Area A1 and A2 courses and the Area A representative on the GE committee to agree upon a rubric that works for everyone.

<u>FALL 2021: Finalize GE Assessment Timetable</u>

- By Fall 2021 the GE Committee should finalize the timetable to include a timeframe for assessing all remaining GELOs. The assessment plan should be completed by Fall 2022 so that the campus can report out about the efforts in the 2023 WASC interim report.

Area A Outcomes	GELO 1: Demonstrate proficiency in oral communication in English, examining communication from the rhetorical perspective and practicing reasoning and advocacy, organization, and accuracy.	Coordinate with IWAC in **Summer 2021** [Year 1: Assessment Tool Design]
	GELO 2: Demonstrate proficiency in written communication in English, examining communication from the rhetorical perspective and practicing reasoning and advocacy, organization, and accuracy.	Coordinate with IWAC in **Summer 2021** [Year 1: Assessment Tool Design]
	GELO 3: Demonstrate ability to analyze, criticize, and advocate ideas; to reason inductively and deductively; and to reach well-supported conclusions.	Coordinate with IWAC in **Summer 2022** to design assessment tool.

Area B Outcomes	GELO 4: Apply scientific principles and the scientific method to data about both living and non-living systems.	*GE Committee should deliberate on whether they want to have a four-year cycle like IWAC or perform assessment more frequently. Since Area B1-3 outcomes are separate from any ILOs, assessment can begin as soon as instructors are ready.* *A designated Area B1-3 (Science) liaison should be appointed to IWAC whenever assessment begins to ensure that all reports are similar in style and substance.*
	GELO 5: Demonstrate ability to reason quantitatively. GELO 6: Explain and apply mathematical or quantitative reasoning concepts to solve problems.	Coordinate with IWAC in **Summer 2021** [Year 2: Data Collection]
Area C Outcomes	GELO 7: Evaluate aesthetic experiences subjectively as well as objectively. GELO 8: Demonstrate awareness of the relation between the arts [C1] and their cultural contexts. GELO 9: Demonstrate awareness of the relation between literary and philosophical texts [C2] and their cultural contexts.	*GE Committee should deliberate on whether they want to have a four-year cycle like IWAC or perform assessment more frequently. Since Area C outcomes are separate from any ILOs, assessment can begin as soon as instructors are ready.* *A designated Area C liaison should be appointed to IWAC whenever assessment begins to ensure that all reports are similar in style and substance.*
Area D Outcomes	GELO 10: Identify and explain the links between human social, political and economic institutions and behavior. GELO 11: Analyze social problems and issues in their contemporary as well as historical settings and in a variety of cultural contexts. GELO 12: Explore the principles, methodologies, value systems and ethics employed in social scientific inquiry.	*GE Committee should deliberate on whether they want to have a four-year cycle like IWAC or perform assessment more frequently. Since Area C outcomes are separate from any ILOs, assessment can begin as soon as instructors are ready.* *A designated Area D liaison should be appointed to IWAC whenever assessment begins to ensure that all reports are similar in style and substance.*
Area E Outcomes	GELO 13: Demonstrates ability to pursue knowledge and solve problems independently.	Coordinate with IWAC to overlap ILO F (information fluency) assessment cycle. ILO F is currently in Year 2 (Data Collection). Assessment of Area E outcomes would being in Summer 2023. Coordinate with IWAC in **Summer 2023** to design assessment tool.
	GELO 14: Applies knowledge and skills from one context to another.	
	GELO 15: Identify, access, and evaluate appropriate sources of information.	

10. **Confirm the following list of individual courses eligible for GELO assessment and notify instructors of these courses that they must participate in assessment work if they teach GE-designated classes.**

Area A – English Language Communication and Critical Thinking Learning Outcomes 9 semester units lower-division	
GELO 1: Demonstrate proficiency in oral communication in English, examining communication from the rhetorical perspective and practicing reasoning and advocacy, organization, and accuracy.	**Introduced**: EGL 110 or EGL 120
GELO 2: Demonstrate proficiency in written communication in English, examining communication from the rhetorical perspective and practicing reasoning and advocacy, organization, and accuracy.	**Introduced**: EGL 100 or EGL 102
GELO 3: Demonstrate ability to analyze, criticize, and advocate ideas; to reason inductively and deductively; and to reach well-supported conclusions.	**Introduced**: EGL 220
Area B – Scientific Inquiry and Quantitative Reasoning Learning Outcomes 9 semester units lower-division 3 semester units upper-division	
GELO 4: Apply scientific principles and the scientific method to data about both living and non-living systems.	**Introduced**: CHE 105, CHE 110, CHE 205, CHE 105L, CHE 110L, NAU 330, OCN 100, OCN 100L, OCN 110, OCN 110L, OCN 200, OCN 200L, OCN 210, OCN 320, PHY 100, PHY 120, PHY 200, PHY 205, PHY 100L, PHY 120L, PHY 200L **Reinforced**: OCN 320
GELO 5: Demonstrate ability to reason quantitatively.	**Introduced**: MTH 100, MTH 107, MTH 205, MTH 210, MTH 211, MTH 212, MTH 215, NAU 205 **Reinforced**: MGT 410
GELO 6: Explain and apply mathematical or quantitative reasoning concepts to solve problems.	**Introduced**: MTH 100, MTH 107, MTH 205, MTH 210, MTH 211, MTH 212, MTH 215, NAU 205 **Reinforced**: MGT 410,
Area C – Arts and Humanities Learning Outcomes 9 semester units lower-division 3 semester units upper-division	
GELO 7: Evaluate aesthetic experiences subjectively as well as objectively.	**Introduced**: EGL 200, EGL 225, HUM 115, HUM 120, HUM 215, LAN 110, LAN 115, LAN 120, LAN 125 **Reinforced**: EGL 305, EGL 308, EGL 310, EGL 315, EGL 320, EGL 330, EGL 340, EGL 345, HUM 325, HUM 350, HUM 380, HUM 400
GELO 8: Demonstrate awareness of the relation between the arts [C1] and their cultural contexts.	**Introduced**: EGL 225, HUM 115, HUM 120, HUM 215
GELO 9: Demonstrate awareness of the relation between literary and philosophical texts [C2] and their cultural contexts.	**Introduced**: EGL 200, EGL 225, HUM 115, HUM 120, HUM 215, LAN 110, LAN 115, LAN 120, LAN 125 **Reinforced**: EGL 305, EGL 308, EGL 310, EGL 315, EGL 320, EGL 330, EGL 340, EGL 345, HUM 325, HUM 350, HUM 380, HUM 400
Area D – Social Sciences Learning Outcomes 9 semester units lower-division	

3 semester units upper-division	
GELO 10: Identify and explain the links between human social, political and economic institutions and behavior.	**Introduced**: CSL 120, CSL 210, ECO 100, ECO 101, ENG 310, GMA 100, GMA 105, GMA 215, GMA 225, GMA 235, GMA 240, GMA 250, GOV 200, HIS 100, HIS 101, LDR 210 **Reinforced**: GMA 300, GMA 310, GMA 315, GMA 230, GMA 325, GMA 330, GMA 335, GMA 340, GMA 350, GMA 355, GMA 365, GMA 405, HIS 300, HIS 305, HIS 315, HIS 316, LAW 315
GELO 11: Analyze social problems and issues in their contemporary as well as historical settings and in a variety of cultural contexts.	**Introduced**: CSL 120, CSL 210, ECO 100, ECO 101, ENG 310, GMA 100, GMA 105, GMA 215, GMA 225, GMA 235, GMA 240, GMA 250, GOV 200, HIS 100, HIS 101, LDR 210 **Reinforced**: GMA 300, GMA 310, GMA 315, GMA 230, GMA 325, GMA 330, GMA 335, GMA 340, GMA 350, GMA 355, GMA 365, GMA 405, HIS 300, HIS 305, HIS 315, HIS 316, LAW 315
GELO 12: Explore the principles, methodologies, value systems and ethics employed in social scientific inquiry.	**Introduced**: CSL 120, CSL 210, ECO 100, ECO 101, ENG 310, GMA 100, GMA 105, GMA 215, GMA 225, GMA 235, GMA 240, GMA 250, GOV 200, HIS 100, HIS 101, LDR 210 **Reinforced**: GMA 300, GMA 310, GMA 315, GMA 230, GMA 325, GMA 330, GMA 335, GMA 340, GMA 350, GMA 355, GMA 365, GMA 405, HIS 300, HIS 305, HIS 315, HIS 316, LAW 315
Area E – Lifelong Learning and Self-Development Learning Outcomes 3 semester units	
GELO 13: Demonstrates ability to pursue knowledge and solve problems independently.	**Introduced**: CSL 120, CSL 210, GMA 355, HUM 115, LDR 210, NAU 103
GELO 14: Applies knowledge and skills from one context to another.	**Introduced**: CSL 120, CSL 210, GMA 355, HUM 115, LDR 210, NAU 103
GELO 15: Identify, access, and evaluate appropriate sources of information.	**Introduced**: CSL 120, CSL 210, GMA 355, HUM 115, LDR 210, NAU 103
Area F – Ethnic Studies 3 semester units	
See Ethnic Studies Learning Outcomes in EO 1100	**Introduced**: HIS 100/ES 100, HIS 101/ES 101

11. **In accordance with Article 6.1.3 of EO 1100, remove GE status from any courses that that have not been offered within a five-year period.**

12. **Article 6.2.5b states that campus GE programs should be subject to *external review*. Cal Maritime should begin to plan to solicit external reviews for the next GE Program Review Cycle.**

Appendix A – CSU General Education Breadth Requirements

Appendix B – FAQ on the Revisions to EO 1100 Revised August 23, 2017

Appendix C – New GE Committee Recommendation Forms

Appendix D – 2020 Curriculum Roadmaps

Origination:	*8/23/2017*
Last Revised:	*12/3/2020*
Next Review:	*12/3/2022*
Owner:	*Sara Zaragoza: Executive Assistant*
Area:	*Academic and Student Affairs*
Codes:	*EO 1100*

CSU General Education Breadth Requirements

This policy is intended to establish a common understanding of the requirements for CSU General Education Breadth (GE) and to provide for the certification of courses completed by transfer students at regionally accredited institutions. Reciprocity among CSU campuses for full and subject-area completion of lower-division GE Requirements is also addressed in this policy. This policy is effective for students subject to the fall 2021 and subsequent catalog years.

This document also addresses:

- **Applicability of the policy (Article 1)**,
- **Patterns that fulfill General Education requirements (Article 2)**,
- **Premises of CSU General Education Breadth (Article 3)**,
- **Distribution of General Education Breadth units (Article 4)**,
- **Transfer and articulation (Article 5)**,
- **Implementation and governance (Article 6)**.

Article 1. Applicability

1. **Prior to Completion of CSU Lower-Division General Education Breadth Requirements**

   The requirements, policies and procedures adopted pursuant to this policy are effective for students subject to the fall 2021 and subsequent catalog years who have not previously been enrolled continuously at a campus of the CSU or the California Community Colleges (CCC) and who have not satisfied lower-division general education requirements according to the provisions of Title 5 Section 40405.2 or 40405.3.

2. **Subsequent to Completion of Entire CSU General Education Breadth Requirements**

   Subsequent to completion of CSU GE lower-division and upper-division requirements, a student shall not be required to satisfy additional exclusively general education breadth requirements.

Article 2. Fulfilling CSU General Education Breadth Requirements

1. **CSU GE Breadth Patterns**

   Policies adopted by the Board of Trustees in July 1991 provide three optional patterns for undergraduate students to fulfill CSU GE requirements:

a. **CSU General Education Breadth**

Fulfillment of CSU GE requirements (Title 5, Section 40405.1), includes lower-division certification by a California Community College or a CSU, and also includes the completion of 9 upper-division semester units (or 12 upper-division quarter units) consisting of a minimum of 3 semester units each (or 4 quarter units) each in Areas B, C and D; or

b. **Intersegmental General Education Transfer Curriculum (IGETC)**

Completion of the Intersegmental General Education Transfer Curriculum (IGETC) (Title 5, Section 40405.2), as certified by a CCC, and also includes the completion of 9 upper-division semester units (or 12 upper-division quarter units) consisting of a minimum of 3 semester units (or 4 quarter units) each in Areas B, C and D; or

c. **University of California (UC) Campus Lower-Division**

Completion of lower-division general education requirements of a University of California campus (Title 5, Section 40405.3), as certified by that campus, and also includes the completion of 9 upper-division semester units (or 12 upper-division quarter units) consisting of a minimum of 3 semester units (or 4 quarter units) each in Areas B, C and D.

2. **CSU Systemwide Requirements**

1. **General Education Requirements**

a. CSU campus GE requirements shall conform to the requirements established in this policy and shall not exceed the requirements for 39 lower-division and 9 upper-division semester-units (or quarter-unit equivalent) in the defined GE Areas, except as described in Article 4, Area B.

b. A baccalaureate candidate who has not completed either the IGETC or UC-campus pattern specified in Article 2 shall complete the CSU General Education Breadth requirements described in Article 4, Subsections A through F, totaling a minimum of 48 semester units or equivalent quarter units.

c. Subsequent to a change of major, the student shall not be subject to different or additional GE requirements solely to address CSU GE requirements already satisfied.

2. **Minimum Grades**

a. A grade of C- or better is required in each CSU or transfer course in written communication in the English language (A2), oral communication in the English language (A1), critical thinking (A3), and mathematics/quantitative reasoning (B4). (Title 5 Sections 40803, 40804, 40804.1).

b. Each CSU campus shall establish the minimum grades for satisfactory completion of remaining general education breadth courses, subject to reciprocity requirements specified in Section 5.6 of this EO.

3. **Upper-Division Requirement**

Nine upper-division semester units (12 upper-division quarter units) are required according to the following distribution:

- Area B (3 semester or 4 quarter units) Scientific Inquiry and Quantitative Reasoning
- Area C (3 semester or 4 quarter units) Arts and Humanities

- Area D (3 semester or 4 quarter units) Social Sciences

The 9 upper-division GE courses are designed to be taken after upper-division status (completion of 60 semester units or 90 quarter units) is attained. Students enrolling in upper-division GE courses shall have completed required lower-division GE courses in written communication, oral communication, critical thinking, and mathematics/quantitative reasoning. Campuses shall require no more than 9 upper-division GE semester units (or the quarter equivalent).

4. **Residency Requirement**

   The 9 semester (12 quarter) units of upper-division GE shall be taken within the CSU. In all cases, students shall meet the residency requirements specified in Title 5 Section 40403.

5. **Exceptions**

   Exceptions to the foregoing requirements may be authorized only under the following circumstances:

   a. In the case of an individual student, the campus may grant a partial waiver of one or more of the particular requirements of Title 5 of the California Code of Regulations, Section 40405.1 to avoid demonstrable hardship. Each campus shall have clearly stated policy regarding such waivers.

   b. In the case of high-unit major degree programs, the chancellor may grant exceptions to one or more requirements for students completing the particular program. Such exception must be approved at the campus level prior to initiating a request to the Chancellor's Office. A full academic justification shall be submitted to the executive vice chancellor for Academic and Student Affairs, who shall submit his or her recommendation and the campus recommendation (along with all relevant documents) to the chancellor.

   c. A student who has been admitted to a baccalaureate degree program is exempt from additional GE requirements if:

      1. The student has previously earned a baccalaureate or higher degree from an institution accredited by a regional accrediting association; or

      2. The student has completed equivalent academic preparation, as determined by the appropriate campus authority.

   d. The total number of GE units required shall not be fewer or greater than 48 semester units (or equivalent quarter units) in the Areas and Subareas described in Article 4. An additional 1 semester or 2 quarter units is allowed as described in Article 4, Area B.

6. **Double Counting**

   1. **General Education, Major, and Other Requirements**

      Major courses and campus-wide required courses that are approved for GE credit shall also fulfill (double count for) the GE requirement.

   2. **General Education and US History, Constitution, and American Ideals Statutory Requirement**

      CSU campuses may permit up to 6 semester units or 8 quarter units taken to meet the United States History, Constitution and American Ideals Requirement (Title 5, Section 40404) to satisfy GE requirements.

Article 3. Premises of CSU General Education Breadth

1. **Background**

   CSU GE requirements have been designed to complement the major program and electives completed by each baccalaureate candidate, to assure that graduates have made noteworthy progress toward becoming truly educated persons.

   These requirements are designed to provide the knowledge, skills, experiences, and perspectives that will enable CSU students to expand their capacities to take part in a wide range of human interests and activities; to confront personal, cultural, moral, and social problems that are an inevitable part of human life; and to cultivate both the requisite skills and enthusiasm for lifelong learning. Faculty are encouraged to assist students in making connections among disciplines to achieve coherence in the undergraduate educational experience.

   Courses approved for CSU GE should be responsive to the need for students to have developed knowledge of, or skills related to, quantitative reasoning, information literacy, intellectual inquiry, global awareness and understanding, human diversity including ethnic studies, civic engagement, communication competence, ethical decision-making, environmental systems, technology, lifelong learning and self-development, and physical and emotional health throughout a lifetime.

2. **Instructional Modality**

   GE requirements may be satisfied through courses taught in all modalities (e.g., face-to-face, hybrid, or completely online). Pursuant to California Education Code Section 66763, an online course shall be accepted for credit at the student's home campus on the same basis as it would be for a student matriculated at the host campus.

3. **CSU Student Learning Outcomes**

   Each CSU campus shall define GE student-learning outcomes within a programmatic structure. For example, GE student-learning outcomes may fit within the framework of the four "Essential Learning Outcomes" drawn from the Liberal Education and America's Promise (LEAP), an initiative of the Association of American Colleges and Universities.

   LEAP Essential Learning Outcomes Framework

   - Knowledge of Human Cultures and the Physical and Natural World
   - Intellectual and Practical Skills
   - Personal and Social Responsibility
   - Integrative Learning

Article 4. Subject Area Distribution

Instruction approved to fulfill the following subject-area distribution requirements should recognize the contributions to knowledge and civilization that have been made by members of diverse cultural and gender groups.

Area A English Language Communication and Critical Thinking

9 semester units (12 quarter units)

One course in each Subarea.

A1	**Oral Communication**	(3 semester units or 4 quarter units)
A2	**Written Communication**	(3 semester units or 4 quarter units)
A3	**Critical Thinking**	(3 semester units or 4 quarter units)

Area A requires 9 semester units or 12 quarter units in oral communication in the English language (A1), written communication in the English language (A2), and critical thinking (A3). Campuses shall not exceed these unit requirements.

Students taking courses in fulfillment of Subareas A1 and A2 will develop knowledge and understanding of the form, content, context and effectiveness of communication. Students will develop proficiency in oral and written communication in English, examining communication from the rhetorical perspective and practicing reasoning and advocacy, organization, and accuracy. Students will enhance their skills and abilities in the discovery, critical evaluation, and reporting of information, as well as reading, writing, and listening effectively. Coursework must include active participation and practice in both written communication and oral communication in English.

In critical thinking (Subarea A3) courses, students will understand logic and its relation to language; elementary inductive and deductive processes, including an understanding of the formal and informal fallacies of language and thought; and the ability to distinguish matters of fact from issues of judgment or opinion. In A3 courses, students will develop the abilities to analyze, criticize, and advocate ideas; to reason inductively and deductively; and to reach well-supported factual or judgmental conclusions.

Area B Scientific Inquiry and Quantitative Reasoning

12 semester units (18 quarter units), with 3 semester units (4 quarter units) taken at the upper-division level

One course each in Subareas B1, B2, and B4, plus laboratory activity (B3) related to one of the completed science courses, and 3 additional semester units (4 quarter units) at the upper-division in one of the following Subareas.

B1	**Physical Science**	(3 semester units or 4 quarter units)
B2	**Life Science**	(3 semester units or 4 quarter units)
B3	**Laboratory Activity**	A laboratory course of not more than 1 semester (2 quarter) unit value, associated with B1 or B2, may be required.
B4	**Mathematics/ Quantitative Reasoning**	(3 semester units or 4 quarter units)

Area B requires 12 semester units or 18 quarter units to include inquiry into the physical universe and its life forms, with participation in a related laboratory activity that may be embedded in a lecture course or taught as

a separate 1 semester (2 quarter) unit course, and into mathematical concepts and quantitative reasoning and their applications. Campuses shall not exceed these unit requirements.

It is expected that campuses could offer the laboratory experience within:

- a 3 semester (4 quarter) unit lecture course;
- a lecture plus laboratory course of 4 semester (6 quarter) units; or
- a standalone laboratory course of 1 semester (2 quarter) units.

In the latter two cases, the total number of lower-division GE semester units shall not exceed 40 (or equivalent quarter units).

In Subareas B1-B3, students develop knowledge of scientific theories, concepts, and data about both living and non-living systems. Students will achieve an understanding and appreciation of scientific principles and the scientific method, as well as the potential limits of scientific endeavors and the value systems and ethics associated with human inquiry. The nature and extent of laboratory experience is to be determined by each campus through its established curricular procedures.

Through courses in Subarea B4 students shall demonstrate the abilities to reason quantitatively, practice computational skills, and explain and apply mathematical or quantitative reasoning concepts to solve problems. Courses in this Subarea shall include a prerequisite reflective only of skills and knowledge required in the course. In addition to traditional mathematics, courses in Subarea B4 may include computer science, personal finance, statistics or discipline-based mathematics or quantitative reasoning courses, for example.

Satisfaction of CSU GE Area B4 Mathematics/Quantitative Reasoning shall fulfill CSU graduation requirements for mathematics/quantitative reasoning, exclusive of mathematics/quantitative reasoning courses necessary for satisfaction of major requirements.

Area C Arts and Humanities

12 semester units (18 quarter units), with 3 semester units (4 quarter units) taken at the upper-division level

One lower-division course completed in each of these 2 Subareas, plus one lower-division course completed in either subarea based on student choice, and 3 additional semester units (4 quarter units) at the upper-division in one of the following Subareas.

C1 Arts: (e.g., Arts, Cinema, Dance, Music, Theater)

C2 Humanities: (e.g., Literature, Philosophy, Languages Other than English)

Area C requires 12 semester units or 18 quarter units among the arts, literature, philosophy and foreign languages. Campuses shall not exceed these unit requirements.

Across the disciplines in Area C coursework, students will cultivate intellect, imagination, sensibility and sensitivity. 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. Students will cultivate and refine their affective, cognitive, and physical faculties through studying works of the human imagination. Activities may include participation in individual aesthetic, creative experiences; however, Area C excludes courses that exclusively emphasize skills development.

In their intellectual and subjective considerations, students will develop a better understanding of the interrelationship between the self and the creative arts and of the humanities in a variety of cultures.

Students may take courses in languages other than English in partial fulfillment of this requirement if the courses do not focus solely on skills acquisition but also contain a substantial cultural component. This may include literature, among other content.

Area D Social Sciences

9 semester units (12 quarter units), with 3 semester (4 quarter) units taken at the upper-division

Six semester lower-division units (8 quarter units) and 3 additional semester units (4 quarter units) at the upper-division. Courses shall be completed in at least 2 different disciplines among the 9 required semester units (or 12 required quarter units).

Area D requires 9 semester units or 12 quarter units dealing with human social, political and economic institutions and behavior, and their historical background. Courses shall be completed from at least two different disciplines among the 9 required semester units (and 12 required quarter units). One upper-division Area D course is required. Campuses shall not exceed these unit requirements.

Students learn from courses in multiple Area D disciplines that human social, political and economic institutions and behavior are inextricably interwoven. Through fulfillment of the Area D requirement, students will develop an understanding of problems and issues from the respective disciplinary perspectives and will examine issues in their contemporary as well as historical settings and in a variety of cultural contexts. Students will explore the principles, methodologies, value systems and ethics employed in social scientific inquiry. Courses that emphasize skills development and professional preparation are excluded from Area D.

Area E Lifelong Learning and Self-Development

3 semester units (4 quarter units)

Area E requires 3 semester units (4 quarter units) of study at the lower-division, and campuses shall not exceed this unit requirement.

This requirement is designed to equip learners for lifelong understanding and development of themselves as integrated physiological, social, and psychological beings. Physical activity may be included, if it is an integral part of the study elements described herein.

Content may include topics such as student success strategies, human behavior, sexuality, nutrition, physical and mental health, stress management, information literacy, social relationships and relationships with the environment, as well as implications of death and dying or avenues for lifelong learning. Courses in this area shall focus on the development of skills, abilities and dispositions.

Area F Ethnic Studies

3 semester units (4 quarter units)

This lower-division, 3 semester (4 quarter) unit requirement fulfills Education Code Section 89032. The requirement to take a 3 semester (4 quarter) unit course in Area F shall not be waived or substituted.

To be approved for this requirement, courses shall have the following course prefixes: African American, Asian American, Latina/o American or Native American Studies. Similar course prefixes (e.g., Pan-African Studies, American Indian Studies, Chicana/o Studies, Ethnic Studies) shall also meet this requirement. Courses without ethnic studies prefixes may meet this requirement if cross-listed with a course with an ethnic studies prefix. Courses that are approved to meet this requirement shall meet at least 3 of the 5 the following core

competencies. Campuses may add additional competencies to those listed.

1. Analyze and articulate concepts such as race and racism, racialization, ethnicity, equity, ethno-centrism, eurocentrism, white supremacy, self-determination, liberation, decolonization, sovereignty, imperialism, settler colonialism, and anti-racism as analyzed in any one or more of the following: Native American Studies, African American Studies, Asian American Studies, and Latina and Latino American Studies.
2. Apply theory and knowledge produced by Native American, African American, Asian American, and/or Latina and Latino American communities to describe the critical events, histories, cultures, intellectual traditions, contributions, lived-experiences and social struggles of those groups with a particular emphasis on agency and group-affirmation.
3. Critically analyze the intersection of race and racism as they relate to class, gender, sexuality, religion, spirituality, national origin, immigration status, ability, tribal citizenship, sovereignty, language, and/or age in Native American, African American, Asian American, and/or Latina and Latino American communities.
4. Critically review how struggle, resistance, racial and social justice, solidarity, and liberation, as experienced and enacted by Native Americans, African Americans, Asian Americans and/or Latina and Latino Americans are relevant to current and structural issues such as communal, national, international, and transnational politics as, for example, in immigration, reparations, settler-colonialism, multiculturalism, language policies.
5. Describe and actively engage with anti-racist and anti-colonial issues and the practices and movements in Native American, African American, Asian American and/or Latina and Latino communities and a just and equitable society.

As described in Article 6, CSU campuses may certify upper-division ethnic studies courses to satisfy the lower-division Area F requirement so long as adequate numbers of lower-division course options are available to students. As described in Article 2, ethnic studies courses required in majors, minors or that satisfy campus-wide requirements and are approved for GE Area F credit shall also fulfill (double count for) this requirement.

Article 5. Transfer and Articulation

This article pertains to regionally accredited CCC and non-CSU institutions that certify transfer students' fulfillment of CSU GE requirements.

1. **Premises of General Education Breadth Transfer and Certification**
    a. It is the joint responsibility of the public segments of higher education to ensure that students are able to transfer without unreasonable loss of credit or time.
    b. The faculty of an institution granting the baccalaureate degree have primary responsibility for maintaining the integrity of the degree program and determining when requirements have been met.
    c. There shall ordinarily be a high degree of reciprocity among regionally accredited institutions unless there are specific indications that such reciprocity is not appropriate.
2. **Conditions for Participation in CSU General Education Breadth Certification**

    CSU campuses may continue to articulate courses that meet GE requirements from other regionally accredited institutions. However, only CCC may participate in the annual CSU GE certification process, subject to the following provisions:

    a. The community college shall designate a liaison representative who shall participate in various orientation activities and provide other institutional staff with pertinent information.

b. The community college shall identify for certification purposes those courses or examinations that fulfill the objectives set forth in Article 3 of this policy and any additional objectives implemented by the CSU Chancellor.

    1. The courses and examinations identified should be planned and organized to enable students to acquire abilities, knowledge, understanding, and appreciation as interrelated elements, not as isolated fragments.
    2. Interdisciplinary courses or integrated sets of courses that meet multiple CSU GE Breadth objectives may be used to satisfy CSU GE requirements.
    3. Units earned through an interdisciplinary course or integrated set of courses may be distributed among different GE Areas, as appropriate.

c. The CSU Office of the Chancellor, Division of Academic and Student Affairs, shall maintain a list of courses and examinations that have been accepted for certification purposes by virtue of meeting requirements set forth in this policy for each GE Area.

    1. Each entry in the list shall specify the area to which the course or examination relates and the number of units associated with each area.
    2. The list shall be updated annually. Each institution shall transmit annually to the CSU Office of the Chancellor, Division of Academic and Student Affairs, any proposed changes to its portion of the list. If a course is to be added or if the specification of areas and objectives for a course is to be modified, the participating institution shall include in its submission the approved course outline. If a course is part of an integrated set of courses, the submission shall identify the set and describe how the course complements the others in the set.
    3. A copy of the list shall be made available in electronic form to any CSU campus or institution. CCC are free to share with other institutions their course outlines and communications about those course outlines.
    4. The CCC shall be responsible for reviewing periodically its portion of the list to assure that entries continue to be appropriate and to reflect current knowledge in the field.
    5. The CCC shall report certification for individual students in a format to be specified.

3. **Certification Requirements**

    1. **Definition**

        GE certification indicates that a transfer student has met CSU lower-division GE requirements. CSU campuses shall accept participating institutions' full certification or subject-area certification, as defined below.

    2. **Full Certification**

        1. **Fulfillment of Lower-Division Requirements**

            Students admitted to a CSU campus with full certification shall not be held to additional lower-division general education requirements.

        2. **Additional Lower-Division Graduation Requirements**

            Full certification does not exempt students from unmet lower-division graduation requirements that may exist outside of the GE program of the campus awarding the degree, so long as the

requirement is accommodated within the Associate Degree for Transfer (when applicable).

3. **Qualification for Full Certification**

   To qualify for full certification, a student must satisfactorily complete 39 lower-division semester units, or the quarter unit equivalent, of instruction appropriate to meet the objectives of Articles 3 (Premises) and 4 (Subject-Area Distribution). If a student completes a laboratory experience with academic credit, as described in Subarea B3, the student may be certified for 40 semester units or the quarter equivalent. CCC GE certification does not guarantee that all CSU campus admission requirements have been met. Units must be distributed as follows below (except as specified in 5.3.5 below):

   a. In Area A, 9 semester units (or the quarter equivalent), including instruction in oral communication, written communication, and critical thinking.
   b. In Area B, 9 semester units (or the quarter equivalent), including instruction in physical science and life science, at least one part of which must include a laboratory component, and mathematics/quantitative reasoning. If a student completes a laboratory experience with academic credit, as described in Subarea B3, the student may be certified for 10 semester units (or the quarter equivalent).
   c. In Area C, 9 semester units (or the quarter equivalent), with at least one course in the arts and one in the humanities.
   d. In Area D, 6 semester units (or the quarter equivalent).
   e. Area E, 3 semester units (or the quarter equivalent).
   f. Area F, 3 semester units (or the quarter equivalent).

3. **Lower-Division Subject-Area (Partial) Certification**

   1. **Fulfillment of Lower-Division Requirements by Area**

      Students admitted to a CSU campus with subject-area certification may not be held to any additional lower-division GE coursework in the subject areas certified.

   2. **Certification Limits on Credits that Exceed Minimum Subject-Area Requirements**

      For subject-area certification, CSU campuses are not required to certify credits that exceed the number of lower-division units required for the six Subject Areas—A through F.

   3. **Additional Lower-Division Graduation Requirements**

      Subject-area certification does not exempt students from completing unmet lower-division graduation requirements that may exist outside of the GE requirements at the campus awarding the degree.

   4. **Qualification for Subject-Area Certification**

      To qualify for subject-area certification, a student must satisfactorily complete instruction appropriate to meet the objectives of one or more subsections of Article 4 (Subject-Area Distribution). Except as specified in 5.3.5, the units shall be distributed as follows:

      a. For Area A, 9 semester units (or the quarter equivalent), including instruction in oral communication, written communication, and critical thinking. A single course may not be

certified as meeting more than one Subarea within Area A for any given student.

b. For Area B, 9 semester units (or the quarter equivalent), including instruction in mathematics/quantitative reasoning and physical science and life science, at least one part of which must include a laboratory component. A single course may not be certified as meeting more than one Subarea within Area B for any given student, except for laboratory components incorporated into a physical or life science course. If a student completes a laboratory experience with academic credit, as described in Subarea B3, the student may be certified for 10 semester (or the quarter equivalent) units.

c. For Area C, 9 semester units (or the quarter equivalent), with at least one course in the arts and one in the humanities.

d. For Area D, 6 semester units (or the quarter equivalent).

e. For Area E, 3 semester units (or the quarter equivalent).

f. For Area F, 3 semester units (or the quarter equivalent).

4. **Approved Associate Degree for Transfer**

   Students are considered lower-division CSU GE certified if they successfully complete and are awarded a CCC Associate Degree for Transfer (ADT) that includes the CSU GE Breadth Patterns, as specified in Article 2, Section 1.

5. **General Education Breadth for STEM Majors within ADTs**

   Students pursuing certain ADTs may be eligible to take "GE Breadth for STEM," deferring one lower-division course in Subarea C and one lower-division course in Subarea D until after transfer. GE Breadth for STEM is applicable only to majors for which the Transfer Model Curriculum specifies GE Breadth for STEM.

   CCC preparing a CSU GE Breadth for STEM certification as part of an ADT shall ensure that the student has completed:

   a. All courses in Areas A, B, E and F of the traditional GE curriculum; and

   b. One course in Area C1 Arts and one course in Area C2 Humanities; and

   c. One course in Area D.

   Details of each Transfer Model Curriculum are maintained and published at www.c-id.net.

6. **Exceptions to Certification Requirements**

   At the discretion of the CSU campus, exceptions to the requirements for full certification and subject-area certification (as specified above) may be made for programs in which instruction is integrated into a set of courses or into interdisciplinary courses designed to meet multiple objectives. Interdisciplinary courses in this case would be expected to be offered at an appropriately greater number of units.

4. **Certification of Courses**

   1. **Qualification for Certification**

      A CCC may certify coursework completed at another CCC if the courses were on the approved

certification list at the CCC. The course shall be certified in the CSU GE Breadth Area or Subarea that is on the official certification list for the CCC at which the course was completed.

2. If so identified by a CCC, those courses shall contribute to qualification of a student for either full certification or subject-area certification, as appropriate.
3. A CCC may include upper-division courses taken at regionally-accredited institutions in certification of lower-division CSU GE or IGETC.
4. Coursework completed at regionally-accredited institutions shall be reviewed for certification purposes by the CCC faculty in the discipline or their designee (e.g., Articulation Officer) to determine if the course is comparable to current CSU GE Breadth requirements.
5. A CCC may certify coursework taken at regionally accredited institutions if the faculty of that CCC or the Articulation Officer determine that the coursework is equivalent to the coursework on their college's approved CSU GE Breadth certification list.

5. **Limitations of Certification**
    1. **Restriction to General Education Requirements**

       Subject-area certification shall not exempt students from unmet lower-division graduation requirements that may exist outside of the GE program of the campus awarding the degree.
    2. Full certification shall not exempt students from unmet lower-division graduation requirements that may exist outside of the GE program of the campus awarding the degree, so long as the requirement is accommodated within the Associate Degree for Transfer.
    3. **Maximum Number of Credits Allowed**
        1. **Limit on Certification on Total General Education Units**

           A CCC shall not certify a student for more than 39 semester units or the quarter equivalent. If more than one CCC certifies a student, the CSU campus granting the degree is not required to accept certification for more than 39 semester units or the quarter equivalent. If a student completes a laboratory experience with academic credit, as described in Subarea B3, the student may be certified for 40 semester (or the quarter equivalent) units.
        2. **Restrictions on Certification of Upper-Division Courses**

           No upper-division credit may be allowed for courses taken in a community college (Title 5 Section 40409.)

6. **General Education Certification Reciprocity Among CSU Campuses**
    1. **Lower-Division Reciprocity**
        a. Lower-division GE requirements satisfied through a course or an examination at one CSU campus shall be accepted as fulfilling the same requirements at the CSU campus granting the baccalaureate degree.
        b. For the purposes of this section, completion of lower-division GE requirements is equivalent to qualification for full certification, as defined in 5.3.2.
    2. **Subject-Area Reciprocity**
        a. Subject-area course certification accepted for CSU GE at one CSU campus shall be accepted

at any CSU campus. The student may not be held to any additional lower-division GE coursework in the subject areas certified.

b. Students seeking to transfer under the provisions of this section shall be responsible for requesting verification that lower-division GE program or subject-area requirements have been met. Upon the request of a currently or formerly enrolled student, the CSU campus from which the student seeks to transfer shall determine the extent to which that student has satisfactorily completed the lower-division GE requirements in each subject area, and shall provide official documentation of such completion.

c. For the purposes of this section, completion of lower-division GE subject-area requirements is equivalent to qualification for subject-area certification, as defined in 5.3.3.

d. Transfer students admitted with documentation of completion of one or more GE subject areas at another CSU campus may not be held to any additional lower-division GE requirements in that subject area by the campus awarding the degree.

3. **Upper-division Reciprocity**

   Upper-division GE requirements satisfied at one CSU campus shall be accepted as fulfilling the same requirements at the CSU campus granting the baccalaureate degree.

4. **Reciprocity Limitations**

   The provisions of 5.6 do not exempt students from fulfilling unmet lower- or upper-division graduation requirements at the CSU campus awarding the degree or from lower or upper-division courses required by individual baccalaureate majors at the CSU campus awarding the degree.

Article 6. Implementation and Governance

1. **General Education Advisory Committee**

   A systemwide Chancellor's General Education Advisory Committee (GEAC) is hereby established. While it is important that the membership of this committee be broadly based, it shall in largest part be drawn from the instructional faculty of the CSU. Each member of the committee shall have an equal vote. The membership shall include

   - At minimum, six CSU faculty to be appointed by the Academic Senate, CSU. One shall serve as chair, and another as vice-chair.
   - One CSU student to be appointed by the California State Student Association,
   - One instructional faculty member from the CCC,
   - One CSU campus academic affairs administrator,
   - One CSU articulation officer,
   - One CCC articulation officer,
   - One Chancellor's Office administrator to staff the committee (ex-officio, non-voting)
   - One CCC Chancellor's Office administrator (ex-officio, non-voting)

   The chancellor or the executive vice chancellor for Academic and Student Affairs Division may from time to time request that the committee address and provide advice on issues related to the development and

well-being of CSU GE policy and programs.

The responsibilities of this committee shall be as follows:

a. Report as appropriate to the chancellor.

b. Review the implications of CSU GE policy for students transferring to the CSU and for the institutions from which they transfer, and propose any necessary adjustments to pertinent policies and practices so that students may be better served in their educational pursuits and achievement of the baccalaureate degree.

c. Study GE policies and practices inside and outside the system and, as appropriate, stimulate intersegmental discussion of GE policy and curricula.

d. Review and propose revisions to the objectives, requirements, and implementation of CSU GE policy to ensure high-quality general education.

2. **Campus Responsibility**

1. **Development and Revision of Campus Requirements**

Campus faculty have primary responsibility for developing and revising the institution's particular GE program. Within the CSU GE distribution framework, each CSU campus is to exercise creativity in identifying courses, disciplines, and learning outcomes. In undertaking this task, careful attention should be given to the following:

a. General Education Program Development

1. Assure that GE requirements are planned and organized so that their objectives are perceived by students as interrelated elements, not as isolated fragments.

2. Provide for reasonable ordering of requirements so that, for example, courses focusing on learning skills will be completed relatively early and those emphasizing integrative experiences will be completed relatively later.

3. Develop programs that are responsive to educational goals and student needs, rather than programs based on traditional titles of academic disciplines and organizational units.

b. General Education Course Development

1. Consider the organization of approved courses so that students may choose from among a variety of "cores" or "themes," each with an underlying unifying rationale.

2. Consider the possibility of incorporating integrative courses, especially at the upper-division level, that feature the interrelationships among disciplines and traditional GE categories.

3. Consider possibilities for innovative teaching and learning, including activity as well as observation in all GE coursework.

c. General Education Course Delivery

1. Provide sufficient numbers of Area A2 written communication and Area B4 mathematics/ quantitative reasoning course sections to allow freshmen to complete these requirements in the first year of enrollment.

2. Provide for at least one course in Ethnic Studies as stipulated in Education Code Section 89032.

3. Courses approved for GE that have not been offered within a five-year period shall have

GE status removed.

4. CSU campuses may certify upper-division courses for lower-division CSU GE Breadth requirements so long as adequate numbers of lower-division course options are available to students.

2. **Campus General Education Committee**

   The effectiveness of a campus GE program is dependent upon the adequacy of curricular supervision, internal integrity and overall fiscal and academic support. Toward this end, each campus shall have a broadly representative GE committee, a majority of which shall be instructional faculty and shall also include student membership. The committee will provide oversight and make recommendations concerning the implementation, conduct and evaluation of requirements specified in this policy. As a companion to the GE committee, a campus may choose to establish a GE program assessment committee to conduct the work described in 6.2.5 of this policy.

3. **General Education Breadth Requirements and the Development of New Baccalaureate Degrees**

   The development of new baccalaureate programs shall include consideration of how the degree requirements will incorporate the required GE units, the major program requirements, and other graduation requirements. Justifications must be provided to the Office of the Chancellor for any program extending the baccalaureate credit requirement beyond 120 units (Title 5, Section 40508).

4. **General Education Academic Advising**

   Each campus shall provide for systematic, readily available academic advising specifically oriented to GE as one means of achieving greater cohesiveness in student choices of course offerings to fulfill these requirements.

   a. General Education Website

      Each CSU campus shall provide a public website that describes the institution's GE program. This website should include at minimum: GE requirements, courses certified for GE, CSU system GE policy and campus GE policy, and campus GE program and GE Area student-learning outcomes.

   b. Each CSU campus shall clearly identify, in the catalog and/or course schedule, courses that are certified for each GE Area and Subarea.

5. **General Education Review and Assessment**

   In accordance with WASC Senior College and University Commission (WSCUC) accreditation requirements, campuses shall:

   a. develop an assessment plan that: (1) aligns the GE curriculum with campus GE outcomes; (2) specifies explicit criteria for assessing the stated outcomes; (3) identifies when and how each outcome shall be assessed; (4) organizes and analyzes the collection of evidence; (5) and uses the assessment results to make improvements to the GE program, courses and pedagogy.

   b. provide for regular periodic reviews of GE program policies and practices in a manner comparable to those of major programs, including evaluation by an external reviewer. The review should include a statement of the Meaning, Quality and Integrity of the campus GE

program and the ongoing assessment of GE student learning outcomes.

Authority

This policy is issued pursuant to Education Code 66763, 89032, 66745-66749.7. Title 5, *California Code of Regulations*, sections 40402.1, 40403, 40405, 40405.1, 40405.2, 40405.3, 40405.4, and 40508, and the Standing Orders of the Board of Trustees, Section II(a). Section II of the Standing Orders of the Board of Trustees of the California State University as further delegated by the Standing Delegations of Administrative Authority.

All revision dates: 12/3/2020, 8/23/2017

Attachments

New Attachment A 11-18-20.docx

Approval Signatures

Approver	Date
Loren Blanchard: EVC Academic/Student Affairs [NE]	12/3/2020
Christina Gutierrez: Comm Spclst, Acad & Sdnt Affrs	12/2/2020
Sara Zaragoza: Executive Assistant	12/2/2020

FAQ on the Revisions to EO 1100 Revised August 23, 2017
CSU General Education Breadth

The following list of commonly raised questions and Chancellor's Office responses is provided with the release of Executive Order 1100 Revised August 23, 2017 *CSU General Education Breadth Requirements*. Questions have been received through consultation and survey feedback from faculty, students and administrators. This document is organized according to the EO structure, to assist in cross-referencing. A summary of revisions made to the general education (GE) EO appears at the end of this document. All requirements refer exclusively to baccalaureate-level learning.

Article 1. Applicability

1. When do these changes take effect?

The policy is effective fall 2018 and applies to students enrolling in fall 2018 and subsequent terms who: (1) have not previously been enrolled continuously at a campus of the CSU or the California Community Colleges (CCC) and (2) who have not satisfied lower-division general education requirements according to the provisions of Title 5 Sections 40405.2 or 40405.3. Students subject to earlier catalog years may elect to change their catalog year and be subject to the new GE requirements as well as current major degree program requirements and campus graduation requirements.

2. Can we delay implementation until fall 2019 to give us more time for the curricular changes we need to carry out?

It would be difficult to justify delaying the benefits afforded by these policy changes, which increase opportunities for student success and facilitate efficient degree completion. Student-supportive policy changes include:

- Intermediate Algebra is no longer required as the uniform prerequisite for all courses in CSU General Education Breadth Area B4 Mathematics/Quantitative Reasoning.
- Approved GE Area B4 courses may now include non-algebra intensive courses such as statistics pathways, statistics for majors, computer science and personal finance, for example.
- Major courses and campus-wide required courses that are approved for GE credit shall also fulfill (double count for) the GE requirement.
- To facilitate efficient degree completion systemwide, 48 semester units[1] is set as both the minimum and maximum for total GE units. Stand-alone one-unit GE laboratory courses may increase the maximum to 49 units. (See question #17);
- To ensure efficient completion of lower-division certification and transfer from CCC campuses, coupled with efficient degree completion at the CSU, this policy clarifies that the nine units of upper-division GE courses are taught only in Areas B, C and D.

[1] One semester unit is equivalent to 1.5 quarter units.

Article 2. Fulfilling CSU General Education Breadth Requirements

3. Can California State Universities (CSU) certify GE completion (either complete certification or subject-area certification) in the same way the California Community Colleges (CCC) do?

Yes, policy now allows certification of lower-division GE Areas satisfactorily completed at any CSU campus. Such lower-division certification ensures that students shall not be held to any additional lower-division GE requirements, mirroring the certification process between CCC and CSU campuses.

Upper-division GE courses completed at one CSU campus shall fulfill the same requirement at any other CSU campus and shall be applied toward the student's residency requirement.

4. What are "Golden Four" GE courses?

Courses in GE Subareas A1, (oral communication in the English language), A2 (written communication in the English language), A3 (critical thinking) and B4 (mathematics/quantitative reasoning) are sometimes referred to as the "Golden Four" or "Basic Skills" courses. They are required for transfer admission to the CSU, and each of the four courses must be passed with a minimum grade of C-, per Title 5 Section 40803.

5. Can a CSU campus that requires a minimum C grade for GE courses, other than the Golden Four, require a student to repeat a transferred GE course for which a C-, or lower, is earned?

No, satisfactory completion of a GE course on one campus shall be recognized as satisfied at any other CSU campus. However, if the course is also required for the major, and the major requires a higher minimum grade, the course shall satisfy the GE requirement but not the major requirement.

6. If the Golden Four require a minimum C- grade to satisfy CSU GE requirements, can students take those courses for Credit/No Credit?

GE policy does not prohibit students from satisfying the Golden Four requirements with a Credit grades as long as the "CR" represents a letter grade of C- or better. However, we recommend that students take these courses for a letter grade as some majors may require letter grades in all required courses.

7. Why are the upper-division GE units restricted to Areas B, C and D?

This clarification of existing requirements reflects the organization of 48 units of CSU GE Breadth, with 39 units in lower-division certification and the remaining 9 units left for upper-division completion. The upper- and lower-division units coordinate with the number of units required in Areas A through E, as shown in the following chart.

	Semester units required for transfer (ADT & full certification)	Semester units required for CSU GE Breadth	Semester units remaining after transfer
Area A	9	9	0
Area B	9	12	3
Area C	9	12	3
Area D	9	12	3
Area E	3	3	0
Totals	**39**	**48**	**9**

Lower-division certification includes 9 lower-division semester units each in Areas A, B, C and D and 3 lower-division semester units in Area E, which totals 39 of the 48 units required. Following completion of the first 39 units at a CSU or community college, the remaining 9 semester units (of the total 48 GE units required) reside in Areas B, C and D—the only Areas that require a total of 12 units each—3 units each beyond lower-division certification. These 9 units coincide with the 9 semester-units of upper-division GE required at the CSU. (See Attachment A of EO 1100 Revised for an illustration of this distribution.)

8. When should a CSU student take upper-division GE courses?

In most cases, upper-division GE courses should be restricted to students who have completed 60 semester units or more. This protects the integrity of the increasing complexity of degree requirements, and it conserves upper-division courses for the graduating seniors whose degree completion could be slowed without access to required upper-division GE courses. At the same time, the CSU has committed to providing the courses students need, when they need them. There may be cases in which students with fewer than 60 units may need to enroll in an upper-division GE course to continue making full-time progress toward degree completion. At a minimum, students shall be required to have satisfactorily completed the Golden Four courses (written communication, oral communication, critical thinking and mathematics/quantitative reasoning) before enrolling in upper-division GE courses.

9. Are there software approaches to preventing a student from enrolling in upper-division GE courses without first having completed one course each in GE Areas A1, A2, A3 and B4?

Yes, the campus Office of Admissions and Records or the Office of the Registrar could edit the prerequisites for upper-division GE courses to include the completion of courses in GE subareas A1, A2, A3 and B4. If additional assistance is required, you may contact Dr. April Grommo, Director of Enrollment Management Services, at 562-951-4726 or agrommo@calstate.edu.

10. Is "double counting" of GE courses required?

Yes, campuses may no longer prohibit the double counting of GE requirements and other requirements. Major required courses that are approved for GE credit and courses and campus-

wide required courses that are approved for GE credit shall also fulfill (double count for) the GE requirement.

11. Will the transfer of upper-division GE courses dilute CSU campus distinctiveness?

No, historically this has not been the case because the transfer of upper-division students from one CSU to another is extremely rare. Of the 419,622 degree-seeking undergraduates enrolled in fall 2016, only 463, or .1%, had transferred from one CSU campus to another that fall. Essentially all students who graduate from a particular CSU campus have taken their 9 upper-division GE semester units at the home campus.

12. If a campus has a service learning, GWAR or other all-campus requirement that is completed as part of GE, can the campus continue this practice?

No, there is no upper-division Area A allowed in CSU policy. Campus GE requirements need to conform to the Area requirements and 48 semester-unit limit (or 49 semester units as described in Article 4 Area B). Campus-wide requirements may continue double counting with GE requirements.

13. If a campus GE program requires a GE Area beyond those required in the EO, does the campus need to discontinue the additional campus-specific GE Area?

Campuses have many options, including moving the courses from that extra GE Area into an existing GE Area, moving the courses out of GE entirely and double counting them as an overlay with GE requirements, reclassifying the courses as campus-specific graduation requirements apart from GE, or designating the courses as major requirements, among other possible strategies. Total degree requirements will need not to exceed 120 units (or the unit total approved by Chancellor White in 2014).

14. Cultural diversity and ethnic studies courses are not specified in the CSU GE Breadth requirements. Does that mean the campuses have to eliminate these courses?

No, campuses can retain their cultural diversity and ethnic studies courses, which can fit within the frameworks of EO 1100 total GE Area limits and GE Area distribution limits. Almost all CSU campuses have been double counting their cultural diversity requirement with GE requirements, helping students to complete degree requirements efficiently. If there are questions about reconfiguring campus requirements, please contact Dr. Alison Wrynn, State University Associate Dean at 562 951-4602 or awrynn@calstate.edu.

Article 3. Premises of CSU General Education Breadth

15. Can a CSU campus refuse to accept a GE course from another CSU (or from a CCC or other regionally accredited institution) if the course was taught online?

No, course modality is not to be considered when evaluating courses for transfer. GE requirements may be satisfied through courses taught in face-to-face, hybrid, or completely

online modalities. Pursuant to California Education Code Section 66763, a course provided entirely online shall be accepted for credit at the student's home campus on the same basis as it would be for a student matriculated at the host campus.

Article 4. Subject Area Distribution

16. Can courses that meet the requirements of CSU GE Subarea B4 have a prerequisite?

Yes, the new policy allows CSU faculty to specify the prerequisites relevant to each GE math or quantitative reasoning course.

Courses in Subarea B4 shall allow students to demonstrate the abilities to reason quantitatively, practice computational skills, and explain and apply mathematical or quantitative reasoning concepts to solve problems. Courses in this Subarea shall include a prerequisite reflective only of skills and knowledge required in the course. In practice, it will be important for students to be advised to take a Subarea B4 course that is appropriate for their major. For some majors, this will require a mathematics class such as calculus, which may have a mathematics prerequisite.

Courses meeting the GE mathematics/quantitative reasoning requirement may include traditional mathematics (e.g., algebra, trigonometry and calculus) as well as statistics. Additionally, GE math/quantitative reasoning options now may include—for example—personal finance, statistics for specific majors, or computer science, which may not be exclusively algebra based. The change allows students more flexibility in completing their bachelor's degrees, and more opportunities to apply mathematical and quantitative reasoning to the world around them.

17. The Quantitative Reasoning Task Force (QRTF) recommended specific GE mathematics/quantitative reasoning requirements. Why are those not included in the revised policy?

In defining the Subarea B4 requirement, the revised EO embraces the fundamental principles of the *QRTF Report* recommended definition, while keeping within the language conventions for EO 1100 Area definitions. The Academic Senate General Education Task Force (GETF) may discuss recommendations that fall outside the scope of this revision project (clarification, ensuring equity and facilitating efficient degree completion).

17. Can our campus have 49 units of GE if we require a 4 semester-unit lecture-and-laboratory course? Can we require 49 units if we require a 3 semester-unit B1 or B2 science lecture course and a related stand-alone one-unit laboratory course?

Yes, while it is expected that campuses could satisfy the laboratory experience requirement with a 3-unit lecture course with an integrated laboratory experience, campuses may require another one semester-unit for a laboratory experience (class). See Article 4, Area B of EO 1100 Revised for a full explanation.

18. Can any GE course exceed the unit count required for a Subarea?

Higher-unit GE courses may not be required, but GE courses bearing higher units may be allowed to satisfy GE Area or Subarea requirements. Major courses that double count toward satisfaction of a GE Subarea may carry a higher unit than the Subarea requires, but students need to be given the option of completing a lower-unit GE course. The most efficient path to degree completion may be through taking, for example, a 5-unit biology major course that also satisfies the B2 and B3 GE Subareas. Compared to taking the 5-unit biology major course and a separate 3-unit B2 GE course and 1-unit B3 GE course, the student who double counts the GE course with the major requirement would save four units.

Article 5. Transfer and Articulation

19. What is an "eligible institution" for articulation?

Any regionally accredited institution or international higher education institution legally authorized to deliver postsecondary instruction in their country is eligible for course articulation with CSU campuses.

20. Can CSU campuses articulate GE courses with institutions other than CCCs?

Yes. Article 5 "Transfer and Articulation" in the executive order refers to the annual CSU GE Breadth and Intersegmental General Education Transfer Curriculum (IGETC) review process that is shared among the CCC, CSU and University of California systems. CSU campuses may continue to articulate courses with all eligible institutions in the same manner they do now.

21. Can a student transfer CCC courses to the CSU to meet upper-division GE requirements?

No. According to Title 5 Section 40409(a), "No upper-division credit may be allowed for courses taken in a community college."

22. Can students transferring to the CSU with an Associate Degree for Transfer (ADT) be required to take additional lower-division GE courses?

No, a student who transfers to the CSU with a CCC Associate of Arts for Transfer (AA-T) or Associate of Science for Transfer (AS-T) is fully certified for 39 units of lower-division CSU GE and *cannot be held to additional lower-division GE requirements*. ADT transfer students are obligated to complete the nine semester units of upper-division GE courses that are part of the 60 CSU semester units required to complete the CSU degree.

23. What is "GE for STEM" within ADTs?

To accommodate the high number of lower-division major preparation courses required in some STEM majors, students pursuing certain ADTs may be eligible to take GE Breadth for STEM.

This allows them to defer taking two lower-division GE courses (one in Area C and one in Area D) until after transfer. See Article 5.3.5 of EO 1100 Revised for details.

24. Which exams may be used for GE course certification?

Satisfactory scores on external examinations, like Advanced Placement, may be used to award GE credit and to certify satisfaction of GE Sub-areas. Coded memo ASA-2017-13 provides the current list of GE units to be awarded for specified examination scores. The list is updated on an annual basis. In addition, course-based challenge exams completed at one CSU campus for a CSU GE course shall be recognized at all other CSU campuses. For more information concerning credit-by-examination policy, see EO 1036 Systemwide Admission Eligibility and/or Baccalaureate Credit Awarded for External Examinations, Experiential Learning, and Instruction in Non-Collegiate Settings.

Article 6. Implementation and Governance

25. Why are courses that have not been taught within a five-year period supposed to have GE status removed?

Concerns have been raised that the number of GE course offerings on some CSU campuses is overwhelming to students, causing confusion when students try to select courses to satisfy GE requirements. The five-year period allows for regular campus review and adjustments.

26. Are CSU campuses required to include students on the campus-wide GE committee?

Yes, it is required to include students on campus GE committees. Additionally, administrators and other staff members may serve on campus GE committees. However, in all cases the majority of the committee membership shall remain instructional faculty.

Summary of Changes to EO 1100*

Section	Revision
2.1	Changes the term "CSU GE pathways" to "CSU GE patterns."
2.2.1	Sets the required semester units for GE Breadth at 48 as both a minimum and maximum, while allowing 49 semester units to reflect practice of requiring a 4 semester unit lecture/lab course or a 1 semester-unit lab course on some campuses. Required laboratory units have often not appeared in GE unit totals.
2.2.2	Establishes minimum C- grade requirements for oral communication, written communication, critical thinking and mathematics/quantitative reasoning, per Title 5.
2.2.3	Clarifies when students should enroll in upper-division GE courses.
2.2.3 and 4	Clarifies that the 9 semester units required at the upper division must be taken in Areas B, C, and D. Some campuses currently require upper-division GE in other areas, which can cause students to take more units than should be the case.

2.2.4	Requires that 9 semester units of upper-division GE shall be taken in the CSU.
2.2.6.1	Institutionalizes double counting for efficient degree completion. Major courses and campus-wide required courses that are approved for GE credit shall also fulfill (double count for) the GE requirement.
2.2.6.2	Campuses are encouraged to allow the double counting of the 6 semester units of American Institutions with GE Area D Social Science.
2.2.1.c and 5.6.2.a	Specifies binding completion. Once a GE requirement is satisfied, students shall not be required to satisfy it again, even if the student were to change campus or major.
3.2	Clarifies that GE courses may be taught in all modalities (e.g., face-to-face, online, and hybrid) formats.
3.3	Removes the long list of LEAP information, replaced with a link.
(formerly 3.4 in previous EO version)	Removes the section on entry-level skills and remediation, as this policy exclusively addresses general education and not admission or remediation requirements.
4	Removes the Intermediate Algebra prerequisite from math/quantitative reasoning Subarea B4 and adds language describing this requirement. Sample course titles are given as examples of the expanded vision for satisfying the mathematics/quantitative reasoning requirement.
4	Specifies additional appropriate course content for Area E (e.g., information literacy and student success strategies), while personal finance is removed from this Area.
5.3.4	Adds information regarding GE for students who earn ADTs.
5.6	Clarifies reciprocity among CSU campuses for GE courses.
6.2.1.c.1	Requires campuses to provide sufficient sections of GE Subarea A2 written communication and B4 mathematics/quantitative reasoning courses to support completion of these requirements within the first year of freshman enrollment.
6.2.1.c.1	Adds requirement to remove GE status for GE courses not offered within a five-year period.

*This chart does not reflect all modifications. For example, stylistic changes, numbering changes and reorganization of elements do not appear in this chart.

Need further assistance?

Contact Dr. Alison Wrynn, State University Associate Dean, Academic Programs at 562-951-4603 or awrynn@calstate.edu.

Attachment A
Requirements for Lower- and Upper-Division
California State University General Education Breadth

GE Area	Lower-Division Semester Units	Upper-Division Semester Units	Total Semester Units* Required
Area A English Language Communication and Critical Thinking			
One course in each Subarea			
A1 Oral Communication			
A2 Written Communication			
A3 Critical Thinking			
Area A total semester units required:	**9**	**0**	**9**
Area B Scientific Inquiry and Quantitative Reasoning			
One course in each Subarea			
B1 Physical Science			
B2 Life Science			
B3 Laboratory Activity - associated with the course taken to satisfy either B1 or B2			
B 4 Mathematics/Quantitative Reasoning			
Area B total semester units required:	**9**	**3**	**12**
Area C Arts and Humanities			
At least one course in each Subarea			
C1 Arts: Arts, Cinema, Dance, Music, Theatre			
C2 Humanities: Literature, Philosophy, Languages Other than English			
Area C total semester units required:	**9**	**3**	**12**
Area D Social Sciences			
Area D total semester units required:	**9**	**3**	**12**
Area E Lifelong Learning and Self-Development			
Area E total semester units required:	**3**		**3**
Total GE Units Required	**39**	**9**	**48**

Note:
Students who transfer to the CSU with an Associate Degree for Transfer (ADT) or full CSU GE certification, have completed required 39 lower-division GE semester units. This includes 9 lower-

division semester units each in Areas A, B, C and D, and 3 lower-division semester units in Area E. Their remaining required 9 semester units fall into CSU GE Areas B, C and D, and are to be taken at the upper-division level.

*To determine unit requirements at quarter-based campuses, multiply the semester unit requirement by 1.5.

STUDENTS ENTERING IN 2020
FACILITIES ENGINEERING TECHNOLOGY MAJOR
DIVISIONS 1&2
CURRICULUM

5/4/20
Subject to Change

Total Units: 154

FALL 2020

CHE	110	General Chemistry (Area B1)	3.0
CHE	110L	General Chemistry Lab (Area B3)	1.0
ENG	100	Engineering Graphics	2.0
EPO	110	Plant Operations I	1.0
EPO	125	Introduction to Marine Engineering✸	3.0
EPO	125L	Introduction to Marine Engineering Lab✸	1.0
EPO	213	Welding Lab	1.0
ET	110	Introduction to Engineering Technology✸	1.0
MTH	100	College Algebra and Trigonometry (Area B4) **"G4"**	4.0
PE	101	Swim Competency Exam	0.0
PE	102	Beginning/Intermediate Swimming	(0.5)
		Total	**17.0**

FALL 2021

COM	220L	Programming Applications for ET Majors Lab	1.0
EGL	220	Critical Thinking	3.0
		[Critical Thinking Elective] (Area A3) **"G4"**	
EPO	210	Plant Operations II	1.0
EPO	214	Boilers✸	3.0
EPO	215	Manufacturing Processes I	1.0
EPO	230	Steam Plant System Operations✸	1.0
MTH	211	Calculus II (Area B4)	4.0
PHY	200	Engineering Physics I (Area B1)	3.0
PHY	200L	Engineering Physics I Lab (Area B3)	1.0
		Total	**18.0**

FALL 2022

		Humanities Elective (Area C-Upper Div)	3.0
EPO	319	Facilities Engineering Diagnostics Lab✸	1.0
ET	230L	Properties of Materials Lab✸	1.0
ET	250	Electrical Circuits✸	3.0
ET	250L	Electrical Circuits Lab✸	1.0
ET	330	Dynamics✸	3.0
ET	332	Strength of Materials✸	3.0
ET	344	Thermodynamics✸	3.0
		Total	**18.0**

FALL 2023

ENG	470	Engineering Management✸	3.0
ET	350	Electrical Machinery✸	3.0
ET	350L	Electrical Machinery Lab✸	1.0
ET	400	Instrumentation and Measurement✸	3.0
ET	400L	Instrumentation and Measurement Lab✸	1.0
ET	442	Heating, Ventilation, and A/C✸	2.0
ET	442L	Heating, Ventilation, and A/C Lab✸	1.0
GOV	200	American Government	3.0
		[American Institutions II Elective] (Area D-Lower Div)	
		Total	**17.0**

SPRING 2021

		Humanities Elective (Area C2-Lower Div)	3.0
CHE	205	Chemistry of Plant Processes✸ (Area B1)	3.0
DL	105	Marine Survival	1.0
DL	105L	Marine Survival Lab	1.0
DL	105X	USCG Lifeboatman's Exam	0.0
EGL	100	English Composition (Area A2) **"G4"**	3.0
FF	200	Basic/Advanced Marine Firefighting	0.0
LIB	100	Info Fluency in the Digital World (Area E)	2.0
MTH	210	Calculus I (Area B4)	4.0
NAU	104	Shipboard Security and Responsibility	1.0
		Total	**18.0**

SPRING 2022

		American Institutions I Elective (Area D-Lower Div)	3.0
EGL	110	Speech Communication (Area A1) **"G4"**	3.0
EPO	235	Steam Plant Watch Team Management✸	1.0
EPO	312	Turbines✸	3.0
ET	230	Properties of Materials✸	2.0
ET	232	Statics✸	3.0
PHY	205	Engineering Physics II (Area B1)	4.0
		Total	**19.0**

SPRING 2023

EGL	300	Advanced Writing	(3.0)
EPO	310	Plant Operations III	1.0
EPO	315	Manufacturing Processes II	1.0
EPO	321	Introduction to Power Generation Plants✸	1.0
ET	340	Fluid Mechanics✸	3.0
ET	340L	Fluid Mechanics Lab✸	1.0
ET	342	Refrigeration and Air Conditioning✸	2.0
ET	342L	Refrigeration and Air Conditioning Lab✸	1.0
ET	370	Electronics✸	3.0
ET	370L	Electronics Lab✸	1.0
		Total	**14.0**

SPRING 2024

		Social Science Elective (Area D-Upper Div)	3.0
ENG	472	Facilities Management✸	3.0
ET	460	Automation✸	3.0
ET	460L	Automation Lab✸	1.0
ET	490	Power Engineering Technology✸	3.0
ET	490L	Power Engineering Technology Lab✸	1.0
HUM	310	Engineering Ethics (Area C2-Upper Div)	3.0
		Total	**17.0**

SUMMER CRUISE 2021

CRU	150	Sea Training I	8.0
EPO	220	Diesel Engineering I✸	2.0
		Total	**10.0**

SUMMER CO-OP 2022

CEP	270	FET Co-Op I	3.0
		Total	**3.0**

SUMMER CO-OP 2023

CEP	370	FET Co-Op II	3.0
		Total	**3.0**

CSU Writing Proficiency Requirements may be met by passing the Graduate Writing Exam, or passing EGL 300 Advanced Writing.

"G4" "Golden 4" Courses (Must receive a "C-" or higher)

✸ Courses in Major (CGPA = 2.0 is required)

STUDENTS ENTERING IN 2020
MARINE ENGINEERING TECHNOLOGY MAJOR
DIVISIONS 1&2
CURRICULUM

5/4/20
Subject to Change

Total Units: 159

FALL 2020

CHE	110	General Chemistry (Area B1)	3.0
CHE	110L	General Chemistry Lab (Area B3)	1.0
ENG	100	Engineering Graphics▶	2.0
EPO	110	Plant Operations I▶	1.0
EPO	125	Introduction to Marine Engineering✸	3.0
EPO	125L	Introduction to Marine Engineering Lab✸	1.0
EPO	213	Welding Lab▶	1.0
ET	110	Introduction to Engineering Technology✸	1.0
MTH	100	College Algebra and Trigonometry (Area B4) **"G4"**	4.0
PE	101	Swim Competency Exam	0.0
PE	102	Beginning/Intermediate Swimming	(0.5)
		Total	**17.0**

FALL 2021

COM	220L	Programming Applications for ET Majors Lab	1.0
EGL	220	Critical Thinking	3.0
		[Critical Thinking Elective] (Area A3) **"G4"**	
EPO	210	Plant Operations II▶	1.0
EPO	214	Boilers▶✸	3.0
EPO	215	Manufacturing Processes I▶	1.0
EPO	230	Steam Plant System Operations▶✸	1.0
MTH	211	Calculus II (Area B4)	4.0
PHY	200	Engineering Physics I (Area B1)	3.0
PHY	200L	Engineering Physics I Lab (Area B3)	1.0
		Total	**18.0**

FALL 2022

		Humanities Elective (Area C-Upper Div)	3.0
ET	230L	Properties of Materials Lab✸	1.0
ET	250	Electrical Circuits✸	3.0
ET	250L	Electrical Circuits Lab▶✸	1.0
ET	330	Dynamics✸	3.0
ET	332	Strength of Materials✸	3.0
ET	344	Thermodynamics✸	3.0
		Total	**17.0**

FALL 2023

ENG	430	Naval Architecture▶✸	3.0
ENG	470	Engineering Management✸	3.0
ET	350	Electrical Machinery✸	3.0
ET	350L	Electrical Machinery Lab▶✸	1.0
ET	400	Instrumentation and Measurement✸	3.0
ET	400L	Instrumentation and Measurement Lab✸	1.0
GOV	200	American Government	3.0
		[American Institutions II Elective] (Area D-Lower Div)	
		Total	**17.0**

SPRING 2021

		American Institutions I Elective (Area D-Lower Div)	3.0
		Humanities Elective (Area C2-Lower Div)	3.0
DL	105	Marine Survival▶	1.0
DL	105L	Marine Survival Lab▶	1.0
DL	105X	USCG Lifeboatman's Exam	0.0
EGL	100	English Composition (Area A2) **"G4"**	3.0
FF	200	Basic/Advanced Marine Firefighting▶	0.0
LIB	100	Info Fluency in the Digital World (Area E)	2.0
MTH	210	Calculus I (Area B4)	4.0
NAU	104	Shipboard Security and Responsibility▶	1.0
		Total	**18.0**

SPRING 2022

EGL	110	Speech Communication (Area A1) **"G4"**	3.0
EPO	235	Steam Plant Watch Team Management▶✸	1.0
EPO	312	Turbines▶✸	3.0
ET	230	Properties of Materials✸	2.0
ET	232	Statics✸	3.0
PHY	205	Engineering Physics II (Area B1)	4.0
		Total	**16.0**

SPRING 2023

EGL	300	Advanced Writing	(3.0)
EPO	310	Plant Operations III▶	1.0
EPO	315	Manufacturing Processes II	1.0
EPO	322	Diesel Engineering II/Simulator✸	1.0
EPO	322L	Diesel Engineering II/Simulator Lab▶✸	1.0
ET	340	Fluid Mechanics✸	3.0
ET	340L	Fluid Mechanics Lab✸	1.0
ET	342	Refrigeration and Air Conditioning✸	2.0
ET	342L	Refrigeration and Air Conditioning Lab▶✸	1.0
ET	370	Electronics▶✸	3.0
ET	370L	Electronics Lab✸	1.0
		Total	**15.0**

SPRING 2024

		Social Science Elective (Area D-Upper Div)	3.0
EPO	217	Shipboard Medical▶	1.0
ET	460	Automation✸	3.0
ET	460L	Automation Lab▶✸	1.0
ET	490	Power Engineering Technology✸	3.0
ET	490L	Power Engineering Technology Lab✸	1.0
HUM	310	Engineering Ethics (Area C2-Upper Div)	3.0
		Total	**15.0**

SUMMER CRUISE 2021

CRU	150	Sea Training I▶	8.0
EPO	220	Diesel Engineering I✸	2.0
		Total	**10.0**

SUMMER CRUISE 2022

CRU	250	Sea Training II	8.0
		Total	**8.0**

SUMMER CRUISE 2023

CRU	350	Sea Training III▶	8.0
		Total	**8.0**

THIRD ASSISTANT ENGINEER'S/OICEW LICENSE REQUIRED FOR GRADUATION

CSU Writing Proficiency Requirements may be met by passing the Graduate Writing Exam, or passing EGL 300 Advanced Writing.

"G4" "Golden 4" Courses (Must receive a "C-" or higher)
▶ STCW Courses (Must receive a "C-" or higher, or "CR")
✸ Courses in Major (CGPA = 2.0 is required)

Please inform the Registrar's Office if you choose an alternate option.
Otherwise your Academic Advisement Report will be incorrect.

STUDENTS ENTERING IN 2020
MECHANICAL ENGINEERING MAJOR
THIRD ASSISTANT ENGINEER'S LICENSE OPTION
DIVISIONS 1&2
CURRICULUM

5/4/20
Subject to Change

Total Units: 162

THIRD ASSISTANT ENGINEER'S LICENSE COURSES ARE BOLDED. ADDITIONAL UNITS MUST BE ADDED TO TOTAL FOR EACH SEMESTER.

FALL 2020

CHE	110	General Chemistry (Area B1)	3.0
CHE	110L	General Chemistry Lab (Area B3)	1.0
EGL	100	English Composition (Area A2) **"G4"**	3.0
EGL	120	Technical Communication❋ (Area A1) **"G4"**	3.0
ENG	110	Introduction to Engineering and Technology❋	1.0
EPO	110	Plant Operations I▶	1.0
EPO	125	Introduction to Marine Engineering	3.0
EPO	213	Welding Lab▶	1.0
MTH	210	Calculus I (Area B4) **"G4"**	4.0
PE	101	Swim Competency Exam	0.0
PE	102	Beginning/Intermediate Swimming	(0.5)
		Total	**20.0**

FALL 2021

ENG	210	Engineering Computer Programming	2.0
EPO	**210**	**Plant Operations II▶**	**1.0**
EPO	215	Manufacturing Processes I▶	1.0
ME	220	Computer Aided Engineering▶❋	2.0
ME	230	Engineering Materials❋	3.0
ME	232	Engineering Statics❋	3.0
MTH	212	Calculus III (Area B4)	4.0
PHY	205	Engineering Physics II (Area B1)	4.0
		Total	**19.0**

FALL 2022

Life Science Elective (Area B2)			3.0
EPO	**235**	**Steam Plant Watch Team Management▶**	**1.0**
EPO	**312**	**Turbines▶**	**3.0**
EPO	**322**	**Diesel Engineering II/Simulator**	**1.0**
EPO	**322L**	**Diesel Engineering II/Simulator Lab▶**	**1.0**
ME	340	Engineering Fluid Mechanics❋	3.0
ME	350	Electromechanical Machinery❋	3.0
ME	350L	Electromechanical Machinery Lab▶❋	1.0
ME	360	Instrumentation and Measurement Systems❋	2.0
ME	360L	Instr. and Measurement Systems Lab❋	1.0
		Total	**13.0**

FALL 2023

American Institutions I Elective (Area D-Lower Div)			3.0
Social Science Elective (Area D-Lower Div)			3.0
ENG	**430**	**Naval Architecture▶❋**	**3.0**
ME	349	Fluid/Thermal Lab❋	2.0
ME	394	Fluid/Thermal Design❋	3.0
ME	492	Project Design I❋	2.0
ME	492L	Project Design I Lab❋	1.0
STEM	2	Stem Course (See Box)❋	3.0
		Total	**17.0**

SPRING 2021

Humanities Elective (Area C2-Lower Div)			3.0
DL	105	Marine Survival▶	1.0
DL	105L	Marine Survival Lab▶	1.0
DL	105X	USCG Lifeboatman's Exam	0.0
EGL	220	Critical Thinking	3.0
[Critical Thinking Elective] (Area A3) **"G4"**			
FF	**200**	**Basic/Advanced Marine Firefighting▶**	**0.0**
MTH	211	Calculus II (Area B4)	4.0
NAU	104	Shipboard Security and Responsibility▶	1.0
PHY	200	Engineering Physics I (Area B1)	3.0
PHY	200L	Engineering Physics I Lab (Area B3)	1.0
		Total	**17.0**

SPRING 2022

ENG	250	Electrical Circuits and Electronics▶❋	3.0
ENG	250L	Electrical Circuits and Electronics Lab▶❋	1.0
EPO	**214**	**Boilers▶**	**3.0**
EPO	**230**	**Steam Plant System Operations▶**	**1.0**
ME	240	Engineering Thermodynamics❋	3.0
ME	330	Engineering Dynamics❋	3.0
ME	332	Mechanics of Materials❋	3.0
MTH	215	Differential Equations (Area B4)	4.0
		Total	**17.0**

SPRING 2023

EGL	300	Advanced Writing	(3.0)
EPO	**310**	**Plant Operations III▶**	**1.0**
EPO	**343**	**Refrigeration & A/C▶**	**1.0**
ME	339	Material/Mechanical Lab❋	2.0
ME	344	Heat Transfer❋	3.0
ME	392	Mechanical Design❋	3.0
ME	460	Automatic Feedback Control▶❋	2.0
ME	460L	Automatic Feedback Control Lab❋	1.0
ME	490	Engineering Design Process❋	3.0
STEM	1	Stem Course (See Box)❋	3.0
		Total	**17.0**

SPRING 2024

Humanities Elective (Area C-Upper Div)			3.0
EPO	**217**	**Shipboard Medical▶**	**1.0**
GOV	200	American Government	3.0
[American Institutions II Elective] (Area D-Lower Div)			
HUM	310	Engineering Ethics (Area C2-Upper Div)	3.0
ME	429	Manufacturing Processes Lab❋	1.0
ME	494	Project Design II❋	2.0
ME	494L	Project Design II Lab❋	1.0
STEM	3	Stem Course (See Box)❋	3.0
		Total	**16.0**

SUMMER CRUISE 2021

CRU	150	Sea Training I (Engine)▶	8.0
EPO	220	Diesel Engineering I	2.0
		Total	**10.0**

SUMMER CRUISE 2022

CRU	250	Sea Training II	8.0
		Total	**8.0**

SUMMER CRUISE 2023

CRU	350	Sea Training III (Engine)▶	8.0
		Total	**8.0**

THIRD ASSISTANT ENGINEER'S/OICEW LICENSE REQUIRED FOR GRADUATION

CSU Writing Proficiency Requirements may be met by passing the Graduate Writing Exam, or passing EGL 300 Advanced Writing.

"G4" "Golden 4" Courses (Must receive a "C-" or higher)
▶ STCW Courses (Must receive a "C-" or higher, or "CR")
❋ Courses in Major (CGPA = 2.0 is required)

STEM COURSES

Energy Design Stem
1 - ME 440 Advanced Fluids & Thermodynamics (Spring 2023)❋
2 - ME 442 Heating, Ventilation, and A/C Design (Fall 2023)❋
3 - ME 444 Energy Systems Design (Spring 2024)❋

Mechanical Design Stem
1 - ME 436 Mechatronic System Design (Spring 2023)❋
2 - ME 430 Mechanical Vibrations (Fall 2023)❋
3 - ME 432 Machinery Design (Spring 2024)❋

Please inform the Registrar's Office if you choose an alternate option.
Otherwise your Academic Advisement Report will be incorrect.

STUDENTS ENTERING IN 2020
MECHANICAL ENGINEERING MAJOR
ME OPTION – DIVISIONS 1&2
CURRICULUM

5/4/20
Subject to Change

Total Units: 152

FALL 2020

CHE	110	General Chemistry (Area B1)	3.0
CHE	110L	General Chemistry Lab (Area B3)	1.0
EGL	100	English Composition (Area A2) **"G4"**	3.0
EGL	120	Technical Communication❋ (Area A1) **"G4"**	3.0
ENG	110	Introduction to Engineering and Technology❋	1.0
EPO	110	Plant Operations I	1.0
EPO	125	Introduction to Marine Engineering	3.0
EPO	213	Welding Lab	1.0
MTH	210	Calculus I (Area B4) **"G4"**	4.0
PE	101	Swim Competency Exam	0.0
PE	102	Beginning/Intermediate Swimming	(0.5)
		Total	**20.0**

FALL 2021

ENG	210	Engineering Computer Programming	2.0
EPO	215	Manufacturing Processes I	1.0
ME	220	Computer Aided Engineering❋	2.0
ME	230	Engineering Materials❋	3.0
ME	232	Engineering Statics❋	3.0
MTH	212	Calculus III (Area B4)	4.0
PHY	205	Engineering Physics II (Area B1)	4.0
		Total	**19.0**

FALL 2022

Life Science Elective (Area B2)			3.0
ME	340	Engineering Fluid Mechanics❋	3.0
ME	350	Electromechanical Machinery❋	3.0
ME	350L	Electromechanical Machinery Lab❋	1.0
ME	360	Instrumentation and Measurement Systems❋	2.0
ME	360L	Instr. and Measurement Systems Lab❋	1.0
		Total	**13.0**

FALL 2023

American Institutions I Elective (Area D-Lower Div)			3.0
Social Science Elective (Area D-Lower Div)			3.0
ME	349	Fluid/Thermal Lab❋	2.0
ME	394	Fluid/Thermal Design❋	3.0
ME	492	Project Design I❋	2.0
ME	492L	Project Design I Lab❋	1.0
STEM	2	Stem Course (See Box)❋	3.0
		Total	**17.0**

SPRING 2021

Humanities Elective (Area C2-Lower Div)			3.0
DL	105	Marine Survival	1.0
DL	105L	Marine Survival Lab	1.0
DL	105X	USCG Lifeboatman's Exam	0.0
EGL	220	Critical Thinking	3.0
[Critical Thinking Elective] (Area A3) **"G4"**			
FF	200	Basic/Advanced Marine Firefighting	0.0
MTH	211	Calculus II (Area B4)	4.0
NAU	104	Shipboard Security and Responsibility	1.0
PHY	200	Engineering Physics I (Area B1)	3.0
PHY	200L	Engineering Physics I Lab (Area B3)	1.0
		Total	**17.0**

SPRING 2022

ENG	250	Electrical Circuits and Electronics❋	3.0
ENG	250L	Electrical Circuits and Electronics Lab❋	1.0
ME	240	Engineering Thermodynamics❋	3.0
ME	330	Engineering Dynamics❋	3.0
ME	332	Mechanics of Materials❋	3.0
MTH	215	Differential Equations (Area B4)	4.0
		Total	**17.0**

SPRING 2023

EGL	300	Advanced Writing	(3.0)
ME	339	Material/Mechanical Lab❋	2.0
ME	344	Heat Transfer❋	3.0
ME	392	Mechanical Design❋	3.0
ME	460	Automatic Feedback Control❋	2.0
ME	460L	Automatic Feedback Control Lab❋	1.0
ME	490	Engineering Design Process❋	3.0
STEM	1	Stem Course (See Box)❋	3.0
		Total	**17.0**

SPRING 2024

Humanities Elective (Area C-Upper Div)			3.0
GOV	200	American Government	3.0
[American Institutions II Elective] (Area D-Lower Div)			
HUM	310	Engineering Ethics (Area C2-Upper Div)	3.0
ME	429	Manufacturing Processes Lab❋	1.0
ME	494	Project Design II❋	2.0
ME	494L	Project Design II Lab❋	1.0
STEM	3	Stem Course (See Box)❋	3.0
		Total	**16.0**

SUMMER CRUISE 2021

CRU 150 Sea Training I (Engine)		8.0
EPO 220 Diesel Engineering I		2.0
	Total	**10.0**

SUMMER CO-OP 2022

CEP 250 ME Co-Op I		3.0
	Total	**3.0**

SUMMER CO-OP 2023

CEP 350 ME Co-Op II		3.0
	Total	**3.0**

CSU Writing Proficiency Requirements may be met by passing the Graduate Writing Exam, or passing EGL 300 Advanced Writing.

"G4" "Golden 4" Courses (Must receive a "C-" or higher)
❋ Courses in Major (CGPA = 2.0 is required)

STEM COURSES

Energy Design Stem
1 - ME 440 Advanced Fluids & Thermodynamics (Spring 2023)❋
2 - ME 442 Heating, Ventilation, and A/C Design (Fall 2023)❋
3 - ME 444 Energy Systems Design (Spring 2024)❋

Mechanical Design Stem
1 - ME 436 Mechatronic System Design (Spring 2023)❋
2 - ME 430 Mechanical Vibrations (Fall 2023)❋
3 - ME 432 Machinery Design (Spring 2024)❋

Total Units: 159

STUDENTS ENTERING IN 2020
MARINE TRANSPORTATION MAJOR
CURRICULUM

7/22/20
Subject to Change

FALL 2020

COM	100	Introduction to Computers	2.0
DL	105	Marine Survival▶❋	1.0
DL	105L	Marine Survival Lab▶❋	1.0
DL	105X	USCG Lifeboatman's Exam▶❋	0.0
DL	109	Industrial Equipment and Safety❋	1.0
DL	115	Marlinspike▶❋	1.0
FF	200	Basic/Advanced Marine Firefighting▶[1&2]	0.0
MTH	100	College Algebra and Trigonometry (Area B4)	4.0
NAU	103	Introduction to Marine Transportation❋	3.0
NAU	104	Shipboard Security and Responsibility▶❋	1.0
NAU	105	Ship Structure▶❋	2.0
PE	101	Swim Competency Exam	0.0
PE	102	Beginning/Intermediate Swimming	(0.5)
		Total	**16.0**

FALL 2021

American Institutions I Elective (Area D-Lower Div) [3&4]			3.0
DL	111	Ship Operations II▶❋	1.0
DL	225	Radar/ARPA▶❋[1&2]	2.0
DL	225L	Radar/ARPA Lab▶❋[1&2]	2.0
EGL	220	Critical Thinking	3.0
[Critical Thinking Elective] (Area A3) **"G4"**			
NAU	102	Navigation I▶❋	4.0
NAU	102L	Navigation I Lab❋	0.0
NAU	230	Rules of the Road▶❋	2.0
PHY	100	Physics I (Area B1)	3.0
PHY	100L	Physics I Lab (Area B3)	1.0
		Total	**18.0 OR 17.0**

FALL 2022

Arts Elective (Area C1-Lower Div)			3.0
Humanities Elective (Area C2-Lower Div) [1&2]			3.0
DL	301	Navigation Piloting Lab❋[1&2]	1.0
DL	310	Marine Supervisory Lab❋	1.0
EGL	300	Advanced Writing	(3.0)
NAU	302	Advanced Navigation▶❋	3.0
NAU	302L	Advanced Navigation Lab❋	0.0
NAU	320	Tank Vessel Operations▶❋	3.0
NAU	330	Meteorology▶❋ (Area B-Upper Div)	3.0
NAU	335	ECDIS▶❋[3&4]	2.0
NAU	335L	ECDIS Lab▶❋[3&4]	1.0
		Total	**17.0 OR 16.0**

FALL 2023

Humanities Elective (Area C- Upper Div)			3.0
DL	305	Tug and Barge❋[3&4]	1.0
DL	405	Shipboard Medical▶❋[1&2]	1.0
DL	405L	Shipboard Medical Lab▶❋[1&2]	1.0
DL	410	Ship Handling▶❋[1&2]	1.0
DL	420	Watchstanding Simulation▶❋	2.0
GOV	200	American Government	3.0
[American Institutions II Elective] (Area D-Lower Div)			
HUM	400	Ethics (Area C-Upper Div)	3.0
NAU	410	License Seminar❋	2.0
NAU	410L	License Seminar Lab❋	0.0
NAU	415	Transportation Security▶❋	2.0
		Total	**18.0 OR 16.0**

SPRING 2021

CHE	105	Introductory Chemistry (Area B1)	3.0
CHE	105L	Introductory Chemistry Lab (Area B3)	1.0
DL	100	Small Craft Operations❋	1.0
DL	110	Ship Operations I▶❋	1.0
DL	120	Cargo Operations▶❋	1.0
ECO	100	Macroeconomics (Area D-Lower Div)	3.0
EGL	100	English Composition (Area A2) **"G4"**	3.0
EGL	110	Speech Communication (Area A1) **"G4"**	3.0
FF	200	Basic/Advanced Marine Firefighting▶[3&4]	0.0
NAU	110	Seamanship▶❋	3.0
		Total	**19.0**

SPRING 2022

American Institutions I Elective (Area D-Lower Div) [1&2]			3.0
Life Science Elective (Area B2)			3.0
DL	240	GMDSS▶❋	2.0
DL	240L	GMDSS Lab▶❋	1.0
DL	225	Radar/ARPA▶❋[3&4]	2.0
DL	225L	Radar/ARPA Lab▶❋[3&4]	2.0
NAU	205	Ship Stability▶❋ (Area B4) **"G4"**	3.0
NAU	240	Electricity/Electronics❋	3.0
NAU	240L	Electricity/Electronics Lab❋	1.0
		Total	**16.0 OR 17.0**

SPRING 2023

Humanities Elective (Area C2-Lower Div) [3&4]			3.0
DL	301	Navigation Piloting Lab❋[3&4]	1.0
DL	311	Marine Management Lab❋	1.0
DL	320	Introduction to Bridge Simulation▶❋	2.0
NAU	120	Marine Engineering❋	3.0
NAU	300	Celestial Navigation❋	4.0
NAU	300L	Celestial Navigation Lab❋	0.0
NAU	325	Cargo Vessel Operations▶❋	3.0
NAU	335	ECDIS▶❋[1&2]	2.0
NAU	335L	ECDIS Lab▶❋[1&2]	1.0
		Total	**16.0 OR 17.0**

SPRING 2024

Social Science Elective (Area D-Upper Div)			3.0
DL	305	Tug and Barge❋[1&2]	1.0
DL	405	Shipboard Medical▶❋[3&4]	1.0
DL	405L	Shipboard Medical Lab▶❋[3&4]	1.0
DL	410	Ship Handling▶❋[3&4]	1.0
LAW	315	Admiralty Law	2.0
MGT	310	Port and Terminal Management	3.0
NAU	400	Advanced Maritime Topics❋ **CHOOSE THIS**	3.0
NAU	420	Maritime Casualty Seminar❋ **OR THIS**	3.0
NAU	430	Liquefied Gas Cargos❋ **OR BOTH OF**	2.0
NAU	430L	Liquefied Gas Cargos Lab❋ **THESE**	1.0
MT	Capstone❋ (Area E)		3.0
		Total	**15.0 OR 17.0**

SUMMER CRUISE 2021

CRU	100 Sea Training (Deck)▶	8.0
	Total	**8.0**

SUMMER CRUISE 2022

CRU	200 Sea Training II (Deck)	5.0
CRU	200L Sea Training II Lab (Deck)	3.0
	Total	**8.0**

SUMMER CRUISE 2023

CRU	300 Sea Training III (Deck)▶	8.0
	Total	**8.0**

THIRD MATE'S/OICNW LICENSE REQUIRED FOR GRADUATION

CSU Writing Proficiency Requirements may be met by passing the Graduate Writing Exam, or passing EGL 300 Advanced Writing.

[1&2] Divisions 1&2 take course
[3&4] Divisions 3&4 take course

"G4" "Golden 4" Courses (Must receive a "C-" or higher)
▶ STCW Courses (Must receive a "C-" or higher, or "CR")
❋ Courses in Major (CGPA = 2.0 is required)

NOTE: Course content/curriculum may be modified to meet STCW or other regulatory requirements.

STUDENTS ENTERING IN 2020
GLOBAL STUDIES AND MARITIME AFFAIRS MAJOR
CURRICULUM

REVISED 11/3/
Subject to Chan

Total Units: 120

FALL 2020

Foreign Language I Elective (Area C2-Lower Div)			3.0
Mathematics Elective (Area B4) **"G4"**			4.0
ECO	100	Macroeconomics❋ (Area D-Lower Div)	3.0
EGL	100	English Composition (Area A2) **"G4"**	3.0
GMA	105	Ocean Politics❋ (Area D)	3.0
LIB	100	Info Fluency in Digital World (Area E)	2.0
PE	101	Swim Competency Exam	0.0
PE	102	Beginning/Intermediate Swimming	(0.5)
		Total	**18.0**

SPRING 2021

Foreign Language II Elective (Area C2-Lower Div)			3.0
Physical Science Elective (Area B1)			3.0
Lab Activity Elective* (Area B3)			1.0
EGL	220	Critical Thinking	3.0
[Critical Thinking Elective] (Area A3) **"G4"**			
GMA	100	International Relations❋ (Area D)	3.0
MTH	107	Elementary Statistics❋ (Area B4-Lower Div	3.0
		Total	**16.0**

FALL 2021

Arts Elective (Area C1-Lower Div)			3.0
GMA	215	Comparative Politics❋ (Area D)	3.0
GOV	200	American Government	3.0
[American Institutions II Elective] (Area D-Lower Div)			
		Major Elective❋❋	3.0
		Total	**12.0**

SPRING 2022

American Institutions I Elective (Area D-Lower Div)			3.0
EGL	110	Speech Communication (Area A1) **"G4"**	3.0
GMA	220	Comparative Maritime Politics❋ (Area D)	3.0
MPM	190	T.S.G.B./International Experience Prep❋	1.0
		Major Elective❋❋	3.0
		Total	**13.0**

SUMMER 2022

CEP	330	GSMA Co-Op❋	3.0
MPM	195	T.S.G.B./Int'l Experience Special Topics❋	3.0
		Total	**6.0**

FALL 2022

Life Science Elective (Area B2)			3.0
EGL	300	Advanced Writing	(3.0)
GMA	300	U.S. Foreign Policy❋ (Area D)	3.0
GMA	350	Political Geography❋ (Area D)	3.0
		Major Elective❋❋	3.0
		Total	**12.0**

SPRING 2023

Lifelong Learning Elective (Area E)			3.0
IBL Elective❋			3.0
GMA	330	Maritime Security❋ (Area D)	3.0
HIS	300	Maritime History of the U.S.❋ (Area D-Upper Div)	3.0
HUM	325	Globalization of Culture❋ (Area C2-Upper Div)	3.0
		Total	**15.0**

FALL 2023

GMA	405	International Maritime Organizations❋ (Area D)	3.0
GMA	460	Senior Thesis❋	3.0
GMA	460L	Senior Thesis Research Lab❋	1.0
		Major Elective❋❋	3.0
		Major Elective❋❋	3.0
		Total	**13.0**

SPRING 2024

GMA	230	U.S. Maritime Policy❋ (Area D)	3.0
GMA	461	Senior Qualifying Exams❋	3.0
HUM	400	Ethics❋ (Area C2-Upper Div)	3.0
		Major Elective❋❋	3.0
		Major Elective❋❋	3.0
		Total	**15.0**

CSU Writing Proficiency Requirements may be met by passing the Graduate Writing Exam, or passing EGL 300 Advanced Writing.

"G4" "Golden 4" Courses (Must receive a "C-" or higher)
❋ Required Courses in Major (CGPA = 2.0 is required)
❋❋ Elective Courses in Major (CGPA – 2.0 is required)

* Lab Activity may be associated with either a Life Science or a Physical Science course.

STUDENTS ENTERING IN 2020
OCEANOGRAPHY MAJOR
CURRICULUM

6/10/20
Subject to Change

Total Units: 120

FALL 2020

Lifelong Learning & Self-Development Elective (Area E)			3.0
CHE	110	General Chemistry I✱ (Area B1)	3.0
CHE	110L	General Chemistry I Lab✱ (Area B3)	1.0
EGL	100	English Composition (Area A2) **"G4"**	3.0
OCN	100	Marine Biology✱ (Area B2)	3.0
OCN	100L	Marine Biology Lab✱ (Area B3)	1.0
PE	101	Swim Competency Exam	0.0
PE	102	Beginning/Intermediate Swimming	(0.5)
			Total 14.0

FALL 2021

EGL	110	Speech Communication (Area A1) **"G4"**	3.0
GOV	200	American Government	3.0
[American Institutions II Elective] (Area D-Lower Div)			
MTH	107	Elementary Statistics✱ (Area B4) **"G4"**	3.0
OCN	200	Intro to Ocean. I: Geo & Chem✱ (Area B1)	3.0
PHY	100	Physics I✱ (Area B1)	3.0
PHY	100L	Physics I Lab✱ (Area B3)	1.0
			Total 16.0

FALL 2022

Free Elective			3.0
Humanities Elective (Area C2-Upper Div)			3.0
COM	210	Programming for Scientific Computing✱	2.0
COM	210L	Oceanography Computer Prog. Lab✱	1.0
OCN	305	Intro to Ocean Science Research✱	1.0
OCN	320	Oceans and Climate✱ (Area B1-Upper Div)	3.0
OCN	330	Marine Microbial Ecology✱	3.0
			Total 16.0

FALL 2023

Arts Elective (Area C1-Lower Div)			3.0
OCN Elective✱✱			3.0
EGL	301	Project-Based Writing for Science✦	3.0
OCN	340	Chemical Oceanography✱	3.0
			Total 12.0

SPRING 2021

CHE	210	General Chemistry II✱	3.0
CHE	210L	General Chemistry II Lab✱	1.0
EGL	220	Critical Thinking	3.0
[Critical Thinking Elective] (Area A3) **"G4"**			
MTH	210	Calculus I✱ (Area B4)	4.0
OCN	110	Marine Ecology✱ (Area B2)	3.0
OCN	110L	Marine Ecology Lab✱ (Area B3)	1.0
			Total 15.0

SPRING 2022

American Institutions I Elective (Area D-Lower Div)			3.0
Humanities Elective (Area C2-Lower Div)			3.0
OCN	210	Intro to Ocean. II: Bio & Phys✱ (Area B1)	3.0
OCN	200L	Intro to Oceanography Lab✱ (Area B3)	1.0
PHY	105	General Physics II✱ (Area B1)	3.0
PHY	105L	General Physics II Lab✱ (Area B3)	1.0
			Total 14.0

SPRING 2023

GMA	320	Ocean Environmental Mgmt (Area D-Upper Div)	3.0
HUM	400	Ethics✱ (Area C2-Upper Div)	3.0
OCN	310	Oceanographic Instruments and Analysis✱	2.0
OCN	310L	Oceanographic Instruments and Analysis Lab✱	1.0
OCN	350	Physical Oceanography✱	3.0
			Total 12.0

SPRING 2024

Free Elective			3.0
Free Elective			3.0
OCN Elective✱✱			3.0
OCN Elective✱✱			3.0
Social Science Elective (Area D-Upper or Lower Div)			3.0
			Total 15.0

SUMMER 2023

OCN	300	Global Education: OCN✱+	3.0
OCN	380	Directed Research/Co-Op✱++	1.0
OCN	380L	Directed Research/Co-Op Lab✱++	2.0
			Total 6.0

"G4" "Golden 4" Courses (Must receive a "C-" or higher)

✦Meets CSU Graduate Writing Assessment Requirement (GWAR).

✱ Courses in Major (CGPA = 2.0 is required)

✱✱Elective Courses in Major (CGPA = 2.0 is required)

+OCN 300 Global Education: OCN will occur in summer of junior or senior year.

++OCN 380 Directed Research/Co-Op and OCN 380L Directed Research/Co-Op Lab may be completed in spring or summer of junior year.

STUDENTS ENTERING IN 2020
BUSINESS ADMINISTRATION MAJOR
INTERNATIONAL BUSINESS AND LOGISTICS
CURRICULUM

5/4/20
Subject to Change

Total Units: 120

FALL 2020

Foreign Language I Elective (Area C2-Lower Div)		3.0
BUS 120 The Environment of Modern Business❋		3.0
[Lifelong Learning & Self Development Elective] (Area E)		
COM 100 Introduction to Computers		(2.0)
ECO 100 Macroeconomics❋ (Area D-Lower Div)		3.0
EGL 100 English Composition (Area A2) **"G4"**		3.0
MTH 100 College Algebra and Trigonometry (Area B4) **"G4"**		4.0
PE 101 Swim Competency Exam		0.0
PE 102 Beginning/Intermediate Swimming		(0.5)
	Total	**16.0**

SPRING 2021

Foreign Language II Elective (Area C2-Lower Div)		3.0
Physical Science Elective (Area B1)		3.0
Lab Activity Elective* (Area B3)		1.0
BUS 165 Business Decision Analysis		3.0
ECO 101 Microeconomics❋ (Area D-Lower Div)		3.0
EGL 220 Critical Thinking		3.0
[Critical Thinking Elective] (Area A3) **"G4"**		
	Total	**16.0**

FALL 2021

BUS 100 Accounting Principles I: Financial❋		3.0
EGL 110 Speech Communication (Area A1) **"G4"**		3.0
GOV 200 American Government		3.0
[American Institutions II Elective] (Area D-Lower Div)		
MGT 205 Organizational Behavior and Labor Relations❋		3.0
MTH 205 Calculus for Business (Area B4)		3.0
	Total	**15.0**

SPRING 2022

American Institutions I Elective (Area D-Lower Div)		3.0
BUS 101 Accounting Principles II: Managerial❋		3.0
BUS 300 International Business		3.0
MGT 305 Information Systems Management❋		3.0
MPM 190 TSGB/International Experience Prep		1.0
MTH 107 Elementary Statistics❋ (Area B4)		3.0
	Total	**16.0**

SUMMER 2022

MPM 195 T.S.G.B./Int'l Experience Special Topics❋+		3.0
	Total	**3.0**

FALL 2022

BUS 200 Introduction to Marketing❋		3.0
BUS 310 Financial Management❋		3.0
EGL 300 Advanced Writing		(3.0)
LAW 100 Business Law❋		3.0
MGT 340 Global Logistics❋		3.0
MGT 410 Quantitative Managerial Methods❋ (Area B-Upper Div)		3.0
	Total	**15.0**

SPRING 2023

Life Science Elective (Area B2)		3.0
BA/IBL Major Elective❋❋		3.0
LAW 300 International Law❋ (Area D-Upper Div)		3.0
MGT 415 Operations Management❋		3.0
	Total	**12.0**

SUMMER 2023

CEP 300 Business Industry Co-Op		3.0
	Total	**3.0**

FALL 2023

BA/IBL Major Elective❋❋		3.0
BUS 405 Leadership and Group Dynamics❋		3.0
MGT 400 Strategic Management❋		3.0
MGT 420 Supply Chain Management❋		3.0
	Total	**12.0**

SPRING 2024

Arts Elective (Area C1-Lower Div)		3.0
BUS 301 International Business II-Country Research Analysis & Global Marketing❋		3.0
HUM 400 Ethics (Area C-Upper Div)		3.0
MGT 440 Logistics Case Analysis❋		3.0
	Total	**12.0**

CSU Writing Proficiency Requirements may be met by passing the Graduate Writing Exam, or passing EGL 300 Advanced Writing.

"G4" "Golden 4" Courses (Must receive a "C-" or higher)
❋ Required Courses in Major (CGPA = 2.0 is required)
❋❋ Elective Courses in Major (CGPA – 2.0 is required)

* Lab Activity may be associated with either a Life Science or a Physical Science course.

+ Special Topics course for International Experience will be determined by the itinerary and instructor expertise, after consultation with the International Business and Logistics Dept.

GENERAL EDUCATION COMMITTEE RECOMMENDATION FORM

REQUEST FOR "AREA A: ENGLISH LANGUAGE COMMUNICATION AND CRITICAL THINKING" DESIGNATION

TO: **_____, Chair, Curriculum Committee**

FROM: **_____, Chair, General Education Committee**

DATE: _____

SUBJECT: **Curriculum Change Request: _____**

Proposed Course Subject:
Proposed Course Title:
Submitted by:
Date Submitted:

GE COMMITTEE SUMMARY

In the space provided, please include the following information: when the committee met, who was in attendance, who was absent (and for what reason), a record of the vote/decision, and a brief summary of the committee discussion (including justifications for decisions and dissenting opinions):

When reviewing courses, the GE Committee considers how well a course accords with the description of the subject area in EO1100, and whether or not the course will require that students satisfy the Cal Maritime General Education Learning Outcomes:

EO1100 Description of Area A: Oral Communication (A1), Written Communication (A2), and Critical Thinking (A3)	GE Committee Discussion Notes
"Area A requires 9 semester units or 12 quarter units in oral communication in the English language (A1), written communication in the English language (A2), and critical thinking (A3). Campuses shall not exceed these unit requirements. Students taking courses in fulfillment of Subareas A1 and A2 will develop knowledge and understanding of the form, content, context and effectiveness of communication. Students will develop proficiency in oral and written communication in English, examining communication from the rhetorical perspective and practicing reasoning and advocacy, organization, and accuracy. Students will enhance their skills and abilities in the discovery, critical evaluation, and reporting of information, as well as reading, writing, and listening effectively. Coursework must include active participation and practice in both written communication and oral communication in English. In critical thinking (Subarea A3) courses, students will understand logic and its relation to language; elementary inductive and deductive processes, including an understanding of the formal and informal fallacies of language and thought; and the ability to distinguish matters of fact from issues of judgment or opinion. In A3 courses, students will develop the abilities to analyze, criticize, and advocate ideas; to reason inductively and deductively; and to reach well-supported factual or judgmental conclusions."	

Cal Maritime GE Learning Outcomes: Area A	GE Committee Discussion Notes
GELO 1: Demonstrate proficiency in oral communication in English, examining communication from the rhetorical perspective and practicing reasoning and advocacy, organization, and accuracy.	
GELO 2: Demonstrate proficiency in written communication in English, examining communication from the rhetorical perspective and practicing reasoning and advocacy, organization, and accuracy.	
GELO 3: Demonstrate ability to analyze, criticize, and advocate ideas; to reason inductively and deductively; and to reach well-supported conclusions.	

When reviewing courses, the GE Committee also considers the "IGETC Standards, Policies & Procedures for Intersegmental General Education Transfer Curriculum, Version 2.0" (updated May 2019) and the "Guiding Notes for General Education Course Reviewers" (updated October 2019) which were "developed based on recommendations from the faculty and staff who review course outlines proposed for lower-division general education credit in the University of California (UC) and the California State University (CSU)."

IGETC Standard for Communication, Composition, and Critical Thinking Courses	GE Committee Discussion Notes
10.1.3 Oral Communication: Instruction approved for fulfillment of the requirement in oral communication is to be designed to emphasize the content of communication as well as the form and should provide an understanding of the psychological basis and the social significance of communication, including how communication operates in various situations. Applicable courses should view communication as the process of human symbolic interaction focusing on the communicative process from the rhetorical perspective: reasoning and advocacy, organization, accuracy; the discovery, critical evaluation and reporting of information; reading and listening effectively as well as speaking and writing. This must include faculty-supervised, faculty-evaluated oral presentations in the presence of others (physically or virtually). Interpersonal communication courses are not a natural fit in the oral communication area, but a few have incorporated significant faculty-supervised, faculty-evaluated practice in speaking with others; added at least a small component of traditional rhetoric; and won placement in the oral communication area. 10.1.1 English Composition [Written Communication]: A first-semester course in English reading and written composition must include substantial instruction and practice in expository essay writing at the college level with a minimum of 6,000 words. Courses should also require a substantial amount of reading of significant literature. Successful completion of the course in A first-semester course in English reading and written composition must include substantial instruction and practice in expository essay writing at the college level with a minimum of 6,000 words. Courses should also require a substantial amount of reading of significant literature. [*Note: CSU requirement does not include a minimum number of words.*] 10.1.1a Courses That Do Not Fulfill the English Composition Requirement, including but not limited to: • English as a Second Language courses *(ESL)* with content that is exclusively remedial. • Writing courses designed to meet the needs of a particular major, *(e.g., Writing for Accountants, Journalism, Business Writing/Communication).*	

10.1.2 Critical Thinking and Composition [Critical Thinking]: The second semester of English composition may be met by those courses in critical thinking taught in a variety of disciplines which provide, as a major component, instruction in the composition of substantial essays and require students to write a sequence of such essays. Successful completion of the course in reading and written composition shall be prerequisite to the course in Critical Thinking/English Composition. Written work shall be evaluated for both composition and critical thinking. Texts chosen in this area should reflect an awareness of cultural diversity. A minimum of 6,000 words of writing is required. Instruction in critical thinking is to be designed to achieve an understanding of the relationship of language to logic, which should lead to the ability to analyze, criticize, and advocate ideas, to reason inductively and deductively, and to identify the assumptions upon which particular conclusions depend. The minimal competence to be expected at the successful conclusion of instruction in critical thinking should be the ability to distinguish fact from judgment, and belief from knowledge; to use elementary inductive and deductive processes; and to recognize common logical errors or fallacies of language and thought. [*Note: CSU requirement does not include a minimum number of words.*]	

The GE Committee votes on whether or not a course should be classified as "General Education" based on the criteria above. However, the committee should preserve a record of any discussion regarding potential impact across the university, overlaps with existing courses, concerns about assessment (including recommendations regarding learning outcomes, assessment plans, etc.), and anything else the committee deems important for the Curriculum Committee to consider in the space below:

Additional Discussion Notes

GENERAL EDUCATION COMMITTEE RECOMMENDATION FORM

REQUEST FOR "AREA B1-3: SCIENTIFIC INQUIRY" DESIGNATION

TO: **_____, Chair, Curriculum Committee**

FROM: **_____, Chair, General Education Committee**

DATE: _____

SUBJECT: **Curriculum Change Request: _____**

Proposed Course Subject:
Proposed Course Title:
Submitted by:
Date Submitted:

GE COMMITTEE SUMMARY

In the space provided, please include the following information: when the committee met, who was in attendance, who was absent (and for what reason), a record of the vote/decision, and a brief summary of the committee discussion (including justifications for decisions and dissenting opinions):

When reviewing courses, the GE Committee considers how well a course accords with the description of the subject area in EO1100, and whether or not the course will require that students satisfy the Cal Maritime General Education Learning Outcomes:

EO1100 Description of Area B 1-3: Physical Science (B1), Life Science (B2), Laboratory Activity (B3)	GE Committee Discussion Notes
In Subareas B1-B3, students develop knowledge of scientific theories, concepts, and data about both living and non-living systems. Students will achieve an understanding and appreciation of scientific principles and the scientific method, as well as the potential limits of scientific endeavors and the value systems and ethics associated with human inquiry. The nature and extent of laboratory experience is to be determined by each campus through its established curricular procedures.	

Cal Maritime GE Learning Outcomes: Area B1-B3 Scientific Reasoning	GE Committee Discussion Notes
GELO 4: Apply scientific principles and the scientific method to data about both living and non-living systems.	

When reviewing courses, the GE Committee also considers the "IGETC Standards, Policies & Procedures for Intersegmental General Education Transfer Curriculum, Version 2.0" (updated May 2019) and the "Guiding Notes for General Education Course Reviewers" (updated October 2019) which were "developed based on recommendations from the faculty and staff who review course outlines proposed for lower division general education credit in the University of California (UC) and the California State University (CSU)."

IGETC Standard for Area B Courses	GE Committee Discussion Notes
10.5 Physical and Biological Sciences Requirement: "Courses must emphasize experimental methodology, the testing of hypotheses, and the power of systematic questioning, rather than only the recall of facts. Courses that emphasize the interdependency of the sciences are especially appropriate for non-science majors." / "Students must develop a comprehension of the basic concepts of physical and biological sciences, and a sophisticated understanding of science as a human endeavor, including the limitations as well as the power of scientific inquiry." 10.5.1 Courses that Do Not Fulfill the Requirement: Acceptable courses *must* focus on teaching the basic concepts of biological sciences. Human Nutrition, Horticulture, Forestry, Health, and Human Environment courses were determined to have a narrow or applied focus and therefore unacceptable for this area. Courses which emphasize the major concepts of the discipline, including biochemical and physiological principles, will be considered. Courses which do not focus on the core concepts of a physical science discipline, such as Energy and the Way We Live, are not acceptable. Courses which survey both the physical and biological sciences but are not comparable in depth and scope to a traditional science course or focus on a particular subject will not satisfy [the requirement]. 10.5.2 Laboratory Science Requirement: "The intent of the IGETC laboratory science requirement is that students take at least one physical or biological science course incorporating a laboratory component. Since the experimental methodology and hypothesis testing taught in a lab builds on the principles presented in the lecture portion of the course, the two must be related. Therefore, the laboratory must correspond to one of the lecture courses taken to fulfill this IGETC requirement. A student cannot use lecture courses in two subjects and a laboratory in a third subject. It is expected that the lecture course is a prerequisite or co-requisite of the laboratory course. Lecture and lab courses may have separate course numbers. Lab science courses must include a clearly identified lab manual in the course outline.	

The GE Committee votes on whether or not a course should be classified as "General Education" based on the criteria above. However, the committee should preserve a record of any discussion regarding potential impact across the university, overlaps with existing courses, concerns about assessment (including recommendations regarding learning outcomes, assessment plans, etc.), and anything else the committee deems important for the Curriculum Committee to consider in the space below:

Additional Discussion Notes

GENERAL EDUCATION COMMITTEE RECOMMENDATION FORM

REQUEST FOR "AREA B4: QUANTITATIVE REASONING" DESIGNATION

TO: _____**, Chair, Curriculum Committee**

FROM: _____**, Chair, General Education Committee**

DATE: _____

SUBJECT: Curriculum Change Request: _____

Proposed Course Subject:
Proposed Course Title:
Submitted by:
Date Submitted:

GE COMMITTEE SUMMARY

In the space provided, please include the following information: when the committee met, who was in attendance, who was absent (and for what reason), a record of the vote/decision, and a brief summary of the committee discussion (including justifications for decisions and dissenting opinions):

When reviewing courses, the GE Committee considers how well a course accords with the description of the subject area in EO1100, and whether or not the course will require that students satisfy the Cal Maritime General Education Learning Outcomes:

EO1100 Description of Area B4: Mathematics/Quantitative Reasoning	GE Committee Discussion Notes
Through courses in Subarea B4 students shall demonstrate the abilities to reason quantitatively, practice computational skills, and explain and apply mathematical or quantitative reasoning concepts to solve problems. Courses in this Subarea shall include a prerequisite reflective only of skills and knowledge required in the course. In addition to traditional mathematics, courses in Subarea B4 may include computer science, personal finance, statistics or discipline-based mathematics or quantitative reasoning courses, for example. Satisfaction of CSU GE Area B4 Mathematics /Quantitative Reasoning shall fulfill CSU graduation requirements for mathematics/quantitative reasoning, exclusive of mathematics/quantitative reasoning courses necessary for satisfaction of major requirements.	

Cal Maritime GE Learning Outcomes: Area B4	GE Committee Discussion Notes
GELO 5: Demonstrate ability to reason quantitatively.	
GELO 6: Explain and apply mathematical or quantitative reasoning concepts to solve problems.	

When reviewing courses, the GE Committee also considers the "IGETC Standards, Policies & Procedures for Intersegmental General Education Transfer Curriculum, Version 2.0" (updated May 2019) and the "Guiding Notes for General Education Course Reviewers" (updated October 2019) which were "developed based on recommendations from the faculty and staff who review course outlines proposed for lower division general education credit in the University of California (UC) and the California State University (CSU)."

IGETC Standard for Area B4 Courses	GE Committee Discussion Notes
10.2 Mathematics and Quantitative Reasoning: The Mathematical Concepts and Quantitative Reasoning requirement shall be fulfilled by completion of a one-term course in baccalaureate level mathematics or statistics, with a stated prerequisite of intermediate algebra or equivalent.* Courses outside the discipline of math using the application of statistics may be used to fulfill this requirement, as long as the course has intermediate algebra or equivalent* as a prerequisite. An appropriate course in statistics must emphasize the mathematical basis of statistics, probability theory and estimation, application and interpretation, uses and misuses, and the analysis and criticism of statistical arguments in public discourse. The prerequisite for Mathematics courses is intermediate algebra or equivalent; the equivalent should cover the content and mathematical practices of the Common Core State Standards for Mathematics, or CCSSM. Statistics course prerequisites/co-requisites should be consistent with CCSSM math standards and teach the skills and knowledge without which the student is highly unlikely to succeed in college-level statistics. For details see the UCTCA Guidelines for Mathematics and Statistics: https://www.ucop.edu/transfer-articulation/transferable-course-agreements/tca- policy/regulations-by-subject-area.html Courses approved to fulfill this requirement must focus on quantitative analysis and the ability to use and criticize quantitative arguments. Symbolic Logic, Computer Programming, Mathematics for Teachers and survey courses such as Math in Society, were deemed unacceptable to fulfill the Mathematical Concepts and Quantitative Reasoning requirement. "Stretch" Mathematics or Statistics courses (i.e., blended courses that include both transferable content and remedial content) may be approved only if both/all courses in the "stretch" course sequence are successfully completed with "C" grade (2.0 on a 4.0 scale) or higher (or the equivalent) and the transferable course content is otherwise comparable to a 'standard' Mathematics or Statistics course.	

The GE Committee votes on whether or not a course should be classified as "General Education" based on the criteria above. However, the committee should preserve a record of any discussion regarding potential impact across the university, overlaps with existing courses, concerns about assessment (including recommendations regarding learning outcomes, assessment plans, etc.), and anything else the committee deems important for the Curriculum Committee to consider in the space below:

Additional Discussion Notes

GENERAL EDUCATION COMMITTEE RECOMMENDATION FORM

REQUEST FOR "AREA C: ARTS AND HUMANITIES" DESIGNATION

TO: _____**, Chair, Curriculum Committee**

FROM: _____**, Chair, General Education Committee**

DATE: _____

SUBJECT: Curriculum Change Request: _____

Proposed Course Subject:
Proposed Course Title:
Submitted by:
Date Submitted:

GE COMMITTEE SUMMARY

In the space provided, please include the following information: when the committee met, who was in attendance, who was absent (and for what reason), a record of the vote/decision, and a brief summary of the committee discussion (including justifications for decisions and dissenting opinions):

When reviewing courses, the GE Committee considers how well a course accords with the description of the subject area in EO1100, and whether or not the course will require that students satisfy the Cal Maritime General Education Learning Outcomes:

EO1100 Description of Area C: Arts (C1) and Humanities (C2):	GE Committee Discussion Notes
"Area C requires 12 semester units or 18 quarter units among the arts, literature, philosophy and foreign languages. Campuses shall not exceed these unit requirements. Across the disciplines in Area C coursework, students will cultivate intellect, imagination, sensibility and sensitivity. 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. Students will cultivate and refine their affective, cognitive, and physical faculties through studying works of the human imagination. Activities may include participation in individual aesthetic, creative experiences; however, Area C excludes courses that exclusively emphasize skills development. In their intellectual and subjective considerations, students will develop a better understanding of the interrelationship between the self and the creative arts and of the humanities in a variety of cultures. Students may take courses in languages other than English in partial fulfillment of this requirement if the courses do not focus solely on skills acquisition but also contain a substantial cultural component. This may include literature, among other content."	

Cal Maritime GE Learning Outcomes: Area C	GE Committee Discussion Notes
GELO 7: Evaluate aesthetic experiences subjectively as well as objectively.	
GELO 8: Demonstrate awareness of the relation between the arts [C1] and their cultural contexts. [*Applies to C1 courses only.*]	
GELO 9: Demonstrate awareness of the relation between literary and philosophical texts [C2] and their cultural contexts. [*Applies to C2 courses only.*]	

When reviewing courses, the GE Committee also considers the "IGETC Standards, Policies & Procedures for Intersegmental General Education Transfer Curriculum, Version 2.0" (updated May 2019) and the "Guiding Notes for General Education Course Reviewers" (updated October 2019) which were "developed based on recommendations from the faculty and staff who review course outlines proposed for lower-division general education credit in the University of California (UC) and the California State University (CSU)."

IGETC Standard for Humanities Courses	GE Committee Discussion Notes
10.3.3 Courses That Fulfill the Humanities Requirement: Acceptable Humanities courses are those that encourage students to analyze and appreciate works of philosophical, historical, literary, aesthetic and cultural importance. Advanced foreign language courses may be approved if they include literature or cultural aspects. Theater and film courses may be approved if taught with emphasis on historical, literary, or cultural aspects. Logic courses may be accepted if the focus is not solely on technique but includes the role of logic in humanities disciplines." 10.3.4 Courses That Do Not Fulfill the Humanities Requirement: Courses such as English Composition, Logic, Speech, Creative Writing, Oral Interpretation, Readers Theatre, and all elementary language other than English courses are skills or performance courses that do not meet the specifications for IGETC.	

C2 Humanities Description (from the CSU "Guiding Notes for General Education Course Reviewers")	GE Committee Discussion Notes
• students learn to analyze and appreciate works of philosophical and cultural importance • course serves as a pathway to a broader understanding of the human condition • course will help students confidently understand and articulate their own subjective intellectual experiences • creative writing courses if they include reading and analysis of works of literature • geography, history, and art courses if outline indicates a strong cultural content and exploration of subjective human experience • art history courses • language courses should evoke a sympathetic response to the acquired culture (courses in languages other than English that contain a substantial cultural component; not focused solely on skills acquisition)	

The GE Committee votes on whether or not a course should be classified as "General Education" based on the criteria above. However, the committee should preserve a record of any discussion regarding potential impact across the university, overlaps with existing courses, concerns about assessment (including recommendations regarding learning outcomes, assessment plans, etc.), and anything else the committee deems important for the Curriculum Committee to consider in the space below:

Additional Discussion Notes

GENERAL EDUCATION COMMITTEE RECOMMENDATION FORM

REQUEST FOR "AREA D: SOCIAL SCIENCES" DESIGNATION

TO: **_____, Chair, Curriculum Committee**

FROM: **_____, Chair, General Education Committee**

DATE: _____

SUBJECT: **Curriculum Change Request: _____**

Proposed Course Subject:
Proposed Course Title:
Submitted by:
Date Submitted:

GE COMMITTEE SUMMARY

In the space provided, please include the following information: when the committee met, who was in attendance, who was absent (and for what reason), a record of the vote/decision, and a brief summary of the committee discussion (including justifications for decisions and dissenting opinions):

When reviewing courses, the GE Committee considers how well a course accords with the description of the subject area in EO1100, and whether or not the course will require that students satisfy the Cal Maritime General Education Learning Outcomes:

EO1100 Description of Area D: Social Sciences	GE Committee Discussion Notes
"Area D requires 12 semester units or 18 quarter units dealing with human social, political and economic institutions and behavior, and their historical background. Students shall complete courses from at least two different disciplines, and one upper-division Area D course is required. Campuses shall not exceed these unit requirements. Students learn from courses in multiple Area D disciplines that human social, political and economic institutions and behavior are inextricably interwoven. Through fulfillment of the Area D requirement, students will develop an understanding of problems and issues from the respective disciplinary perspectives and will examine issues in their contemporary as well as historical settings and in a variety of cultural contexts. Students will explore the principles, methodologies, value systems and ethics employed in social scientific inquiry. Courses that emphasize skills development and professional preparation are excluded from Area D."	

Cal Maritime GE Learning Outcomes: Area D	GE Committee Discussion Notes
GELO 10: Identify and explain the links between human social, political and economic institutions and behavior.	
GELO 11: Analyze social problems and issues in their contemporary as well as historical settings and in a variety of cultural contexts.	
GELO 12: Explore the principles, methodologies, value systems and ethics employed in social scientific inquiry.	

When reviewing courses, the GE Committee also considers the "IGETC Standards, Policies & Procedures for Intersegmental General Education Transfer Curriculum, Version 2.0" (updated May 2019) and the "Guiding Notes for General Education Course Reviewers" (updated October 2019) which were "developed based on recommendations from the faculty and staff who review course outlines proposed for lower-division general education credit in the University of California (UC) and the California State University (CSU)."

IGETC Standard for Area 4: Social and Behavioral Sciences Courses	GE Committee Discussion Notes
10.4 Subject Area 4: Social and Behavioral Sciences: courses dealing with individual behavior in human social, political, and economic institutions. Students develop understanding of the perspectives and research methods of the social and behavioral sciences. Problems and issues in these areas should be examined in their contemporary, historical, and geographical settings. Students who have completed this requirement shall have been exposed to a pattern of coursework designed to help them gain an understanding and appreciation of the contributions and perspectives of men, women and of ethnic and other minorities and a comparative perspective on both Western and non-Western societies. The material should be presented from a theoretical point of view and focus on core concepts and methods of the discipline rather than on personal, practical, or applied aspects. 10.4.1 Courses That Do Not Fulfill the Social and Behavioral Sciences Requirement Only courses taught from the perspective of a social or behavioral science are approved. Consequently, courses such as Physical Geography and Statistics do not meet the IGETC specifications for this area and are not approved. Community colleges may resubmit these courses in a more appropriate area. Courses with a practical, personal, or applied focus are not approved. Administration of Justice courses may be approved if the content focuses on core concepts of the social and behavioral sciences.	

Social Sciences Description (from the CSU "Guiding Notes for General Education Course Reviewers")	GE Committee Discussion Notes
Uses social scientific techniques of experimentation and empirical evidence to explore human experience Includes theoretical perspectives and focus on core concepts and methods of the discipline, including quantitative and qualitative analysis Examine groups of people and patterns of behavior and social dynamics Students learn how to practice social science, and not just understand what social scientists have concluded Course leads to a broad understanding of social science, and not just the discipline within it Students are learning more than pre-professional skills	

The GE Committee votes on whether or not a course should be classified as "General Education" based on the criteria above. However, the committee should preserve a record of any discussion regarding potential impact across the university, overlaps with existing courses, concerns about assessment (including recommendations regarding learning outcomes, assessment plans, etc.), and anything else the committee deems important for the Curriculum Committee to consider in the space below:

Additional Discussion Notes

GENERAL EDUCATION COMMITTEE RECOMMENDATION FORM

REQUEST FOR "AREA E: LIFELONG LEARNING AND SELF-DEVELOPMENT" DESIGNATION

TO: **_____, Chair, Curriculum Committee**

FROM: **_____, Chair, General Education Committee**

DATE: **_____**

SUBJECT: **Curriculum Change Request: _____**

Proposed Course Subject:
Proposed Course Title:
Submitted by:
Date Submitted:

GE COMMITTEE SUMMARY

In the space provided, please include the following information: when the committee met, who was in attendance, who was absent (and for what reason), a record of the vote/decision, and a brief summary of the committee discussion (including justifications for decisions and dissenting opinions):

When reviewing courses, the GE Committee considers how well a course accords with the description of the subject area in EO1100, and whether or not the course will require that students satisfy the Cal Maritime General Education Learning Outcomes:

EO1100 Description of Area E: Lifelong Learning and Self-Development	GE Committee Discussion Notes
Area E requires 3 semester units (4 quarter units) of study, and campuses shall not exceed this unit requirement. This requirement is designed to equip learners for lifelong understanding and development of themselves as integrated physiological, social, and psychological beings. Physical activity may be included, if it is an integral part of the study elements described herein. Content may include topics such as student success strategies, human behavior, sexuality, nutrition, physical and mental health, stress management, information literacy, social relationships and relationships with the environment, as well as implications of death and dying or avenues for lifelong learning. Courses in this area shall focus on the development of skills, abilities and dispositions.	

Cal Maritime GE Learning Outcomes: Area E	GE Committee Discussion Notes
GELO 13: Demonstrates ability to pursue knowledge and solve problems independently.	
GELO 14: Applies knowledge and skills from one context to another.	
GELO 15: Identify, access, and evaluate appropriate sources of information.	

When reviewing courses, the GE Committee also considers the "IGETC Standards, Policies & Procedures for Intersegmental General Education Transfer Curriculum, Version 2.0" (updated May 2019) and the "Guiding Notes for General Education Course Reviewers" (updated October 2019) which were "developed based on recommendations from the faculty and staff who review course outlines proposed for lower-division general education credit in the University of California (UC) and the California State University (CSU)."

IGETC Standard for Area E	GE Committee Discussion Notes
There is no IGETC Counterpart to Area E.	

Area E Description (from the CSU "Guiding Notes for General Education Course Reviewers")	GE Committee Discussion Notes
Lifelong Learning and Self-Development With the exception of courses in physical activity (detailed below), reviewers expect courses in Area E to include three kinds of inquiry: sociological, physiological, and psychological. • Courses should address all three areas for *more than a few years of a human lifespan*. The consideration doesn't need to extend from cradle to grave, but study should include more than early childhood or the octogenarian experience, in order to provide the breadth expected of general education. • Courses that focus on a single learning skill (e.g., library use, computer literary, or first aid) are not appropriate for GE. **Sociological:** • In this context, the relationships between an individual and broader society. **Physiological:** • The human body as an integrated organism with systemic functions such as movement, nutrition, growth, reproduction, and aging. **Psychological:** • The study of the mental processes that create consciousness, behavior, emotions, and intelligence. **Physical Activity:** • Physical activity courses (except for special-topics or directed studies courses) are acceptable in Area E. Students may not complete Area E using only physical activity courses. Participating institutions are asked to limit the number of physical-activity units they count when certifying a student for Area E. *Note: Courses in personal finance are no longer considered for CSU Area E. Personal finance courses that are currently approved for Area E had their CSU Breadth GE status removed effective fall 2018. CCCs may submit revised personal finance courses for Subarea B4 consideration during the CSU GE Breadth/IGETC review period.*	

The GE Committee votes on whether or not a course should be classified as "General Education" based on the criteria above. However, the committee should preserve a record of any discussion regarding potential impact across the university, overlaps with existing courses, concerns about assessment (including recommendations regarding learning outcomes, assessment plans, etc.), and anything else the committee deems important for the Curriculum Committee to consider in the space below:

Additional Discussion Notes