GENERAL EDUCATION TASK FORCE REPORT AND RECOMMENDATIONS: CREATING A STUDENT-FOCUSED AND DISTINCTIVE PROGRAM AT CAL POLY

General Education Task Force California Polytechnic State University, San Luis Obispo

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Introduction and Charge

Cal Poly conducted a formal review of the General Education (GE) Program between 2014 and 2016. The previous GE Program Review occurred in 2006. In support of the most recent effort, the General Education Governance Board (GEGB) worked with members of various programs and departments, the Academic Senate, and Academic Programs and Planning to prepare a Self-Study report. The Self-Study summarized assessment and evaluation results and outlined strategic priorities. In early 2016, a Program Review Committee reviewed the GE Self-Study and completed a site visit. This four-person committee included three external reviewers and one Cal Poly faculty member. The committee submitted a GE Program Review Report on April 21, 2016. The report includes an evaluation of the Cal Poly GE Program as well as suggestions for program development. The report concludes with eight "key recommendations" for consideration by Cal Poly.

In November 2016, the Provost requested applications to serve on the "Task Force for General Education (GE) Design." The General Education Task Force (GETF), as it is now recognized, was formed to review the results of GE Program Review and to provide recommendations regarding a new vision for GE at Cal Poly. The Provost provided five specific imperatives when outlining the GETF's charge:

- To envision a meaningful and coherent GE program that provides students with the opportunity to understand themselves, their place in the world, and their field of study.
- To design a comprehensible GE program whose value and structure are clearly evident to students, staff, and faculty.
- To provide GE program flexibility to prevent unnecessary barriers to student degree progress.
- To integrate considerations of diversity and inclusion, using Cal Poly's Diversity Learning Objectives and US Cultural Pluralism Policy as starting points for discussion.
- To internationalize the GE program in content and by providing increased opportunities for students to develop language and cultural competency skills.

The Provost formed the GETF in February 2017, and the group had its first meeting shortly thereafter. The Provost directed the GETF to develop its recommendations by Spring 2018. In May 2017, the GETF and GEGB agreed on a "Memorandum of Understanding (MOU): Statement of Collaboration and Communication" to work together and share information while addressing the goal of GE redesign and innovation. This MOU reiterated the fact that any revisions to the GE program and/or curriculum must undergo the standard curricular review process outlined in the Academic Senate Bylaws.

The following GETF report summarizes the work of the task force between February 2017 and June 2018 and presents a list of eleven (11) program recommendations. The recommendations are detailed in Appendix A and B. The recommendations focus on the following five areas, as related to the GE Program: curriculum structure, pathways and integration, pedagogy and course design, message and outreach, and program management and assessment.

General Education Task Force Membership

The GETF included students, faculty, and staff members representing all six of Cal Poly's colleges as well as the GEGB, the Office of University Diversity and Inclusion, University Advising, University Registrar, and Academic Programs and Planning. A membership roster is provided in Appendix C of this report.

CSU Executive Order 1100

The Chancellor's Executive Order 1100 – CSU General Education Breadth Requirements establishes a common understanding of the minimum requirements for CSU General Education Breadth and provides for the certification of coursework completed by transfer students at regionally accredited institutions. Executive Order 1100 (EO 1100) defines five required distribution areas (GE Areas A through E) and the units assigned to each. The order specifies that every baccalaureate candidate complete 48 semester units (72 quarter units) of GE coursework. EO 1100 provides some flexibility in the minimum requirements, especially for high-unit degree programs (i.e., total units exceeding 180 quarter units).

In August 2017, the Chancellor issued a revised Executive Order 1100, herein referred to as EO 1100-R. The revised order incorporated changes to help better clarify requirements, ensure equitable opportunity for student success, and streamline graduation requirements. This revised policy was made effective Fall 2018.

Cal Poly's GE program does not comply with EO 1100-R in several respects. For example, the current curriculum template includes GE areas and subareas not specified in the CSU GE Breadth requirements (e.g., Area F: Technology). On April 17, 2018, the CSU issued a memorandum clarifying the need to discontinue this practice ("Clarification on Executive Order 1100-Revised", Loren Blanchard, Executive Vice Chancellor). Over the past year, the GEGB and Academic Programs and Planning have worked together with the CSU to understand the requirements of EO 1100-R, identify ways in which the Cal Poly GE Program does not meet these requirements, and develop solutions to meet any new and/or clarified requirements.

The GETF Co-Chairs participated in discussions regarding EO 1100-R and strategies for meeting CSU requirements; however, the task force did not assist in developing or implementing near-term solutions. The GETF has focused on developing a long-term vision for GE at Cal Poly. The group has researched EO 1100 and EO 1100-R to support their deliberations and the development of GE recommendations. The GETF recommendations presented in this report support and comply with the minimum requirements presented in EO 1100-R.

General Education Task Force Work and Activities

The GETF held its first meeting on February 21, 2017. Over the next 16 months, the group reviewed relevant documents, consulted with stakeholders, researched GE best practices,

developed their recommendations, and addressed other important tasks. A timeline is presented in Figure 1.

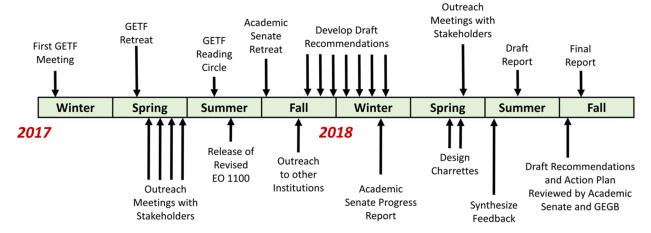


Figure 1 – Timeline of GETF Work and Activities, Winter 2017 through Spring 2018.

The primary work and activities of the GETF are listed and briefly described below:

- **Program Review Documents and Recommendations:** The GETF members reviewed documents from GE Program Review, including the GE Self-Study Report (2015) and the GE Program Review Report (2016). The task force reflected on the conclusions of these studies when developing the GETF recommendations.
- CSU General Education Breadth Requirements: The GETF members studied CSU Executive Order 1100 and reviewed the revised version (EO 1100-R) when it was released in August 2017. The task force considered these minimum requirements and constraints during their GE design discussions and when developing the GETF recommendations.
- Regular Task Force Meetings: The GETF held 27 meetings between February 2017 and June 2018. These meetings typically lasted 50 to 100 minutes. The meetings provided time for the task force members to reflect on GE best practices, review and analyze feedback from stakeholders, develop guiding principles for their work, share and reflect on their own experiences with Cal Poly GE, propose new ideas for GE courses and curricula, and examine potential recommendations.
- **GE Task Force Half-Day Retreat:** The GETF held a half-day retreat on April 21, 2017. The retreat provided the task force with the opportunity develop as a team. The group spent this meeting reflecting on the GE Program Review results, identifying potential initiatives and recommendations related to GE design, and establishing short- and long-term goals.
- Summer Reading Circle: During Summer 2017 the GETF Co-Chairs and several task force members met to discuss several books and articles on GE design (and redesign). The reading list included *General Education Essentials: A Guide for College Faculty* by

Hanstedt and Rhodes (2012) and *Revising General Education – And Avoiding the Potholes* by Gaston and Gaff (2009). The readings and discussions proved valuable in preparing the following year's work.

- Researching GE Best Practices: The GETF tasked each member with researching other GE programs throughout the U.S. and Canada. The members shared their findings with the group to inspire discussion and new design ideas. In Fall 2017, the GETF Co-Chairs and other task force members completed conference calls with GE program leaders and designers at CSU Chico, Virginia Tech, and Rochester Institute of Technology. The call participants answered questions and reflected on recent work to revise their GE programs. In February 2017, the GETF Co-Chairs, the GEGB Chair, and representatives from Academic Programs and Planning attended the AAC&U Annual Meeting in Phoenix on "General Education and Assessment: Design Thinking for Student Learning."
- Academic Senate Retreat: The GETF worked with the Academic Senate to organize and facilitate a half-day GE workshop in September 2017, which was held in conjunction with the Academic Senate's annual fall retreat. The workshop included a general discussion of GE at Cal Poly, the work of the GEGB, and the goals of the GETF. The retreat participants worked in breakout groups to answer questions and discuss a vision for GE at Cal Poly.
- Outreach to Stakeholders: From April 2017 to May 2018, the GETF Co-Chairs and several task force members met formally with student, faculty, and staff groups representing GE stakeholders. Appendix D summarizes these meetings and presentations. In total, 36 meetings were held. The primary objective of these stakeholder meetings was to solicit feedback regarding GE at Cal Poly. The GETF typically asked three questions: (1) What are your hopes for GE at Cal Poly? (2) What concerns or fears do you have regarding GE revision or redesign? (3) What ideas do you have regarding GE innovation and/or redesign? The GETF summarized stakeholder feedback in a database that can be made available upon request (see Appendix E).
- **GE Design Charrettes:** In May 2018 the GETF held four design charrettes to present their draft GE recommendations and solicit feedback from stakeholders. These charrettes are discussed in a subsequent section of this report.
- Consultation with the Academic Senate and Academic Programs and Planning: In 2018, the GETF Co-Chairs attended regular meetings (approximately one per month) with the Academic Senate Chair (Dustin Stegner), the Associate Vice Provost for Academic Programs and Planning (Bruno Giberti), and the Senior Vice Provost for Academic Affairs (Mary Pedersen). The GEGB Chair (Brenda Helmbrecht) attended several of these meetings. During these meetings, the GETF Co-Chairs reported on progress and answered questions.

Guiding Principles

The GETF developed a set of guiding principles based on internal discussions, discussions with the GEGB, conversations with stakeholders, research into current best practices, and recommendations from GE Program Review. The following principles helped guide the task force during deliberations and the development of program recommendations.

At Cal Poly, the GETF seeks a General Education Program that:

- 1. Provides a structure that enables, encourages, and strengthens meaning making.
- 2. Strives to make its structure and requirements clear to all stakeholders.
- 3. Advances the university mission by emphasizing values inherent in diversity and inclusivity.
- 4. Builds upon our unique strengths as a comprehensive polytechnic institution and distinguishes itself through innovation, Learn By Doing, and collaboration.
- 5. Evolves, adapts, and improves through the use of well-defined educational objectives, efficient assessment, and evidence-based decision-making.

Draft Recommendations and Design Charrettes

The GETF developed a set of draft set of twelve (12) GE recommendations and shared them with the campus community in Spring 2018. In developing these recommendations, the task force drew on ideas and feedback collected during regular discussions with program stakeholders. In addition, the group reflected on a set of five (5) guiding principles (see above), its own deliberations and discussions, research into best practices, conversations with peer institutions, and feedback collected during program review. The GETF originally drafted over 20 recommendations related to the following areas: curriculum structure, pathways and integration, pedagogy and course design, message and outreach, and program management and assessment. The group eventually prioritized 12 recommendations for presentation and discussion.

Over a two-week period in May 2018, the GETF hosted four design charrettes to present the draft GE recommendations and solicit feedback from stakeholders. These charrettes consisted of two-hour poster presentations and were held in the Advanced Technology Laboratories and the Kennedy Library Atrium. A compilation of the charrette posters is included in Appendix F. The posters summarize the 12 draft GE recommendations. The charrettes were advertised to the campus community in the weeks preceding the events. The GETF sent a charrette announcement and flier to all of the instructors teaching GE courses during Spring 2018.

The charrettes provided an open forum for discussion of the proposed recommendations. The GETF Co-Chairs and several members made themselves available during each charrette to answer questions and solicit feedback. Attendees were encouraged to provide feedback by posting adhesive notes on the individual posters. In addition, attendees were asked to highlight (with adhesive dots) up to five recommendations and/or ideas they liked or felt positively about.

After each design charrette, the GETF logged feedback, comments, and questions noted on the posters. The task force presented clean and unmarked posters at the beginning of each charrette. The GETF summarized stakeholder feedback collected during the design charrettes. This feedback is compiled and organized in a database that can be made available upon request (see Appendix G).

General Education Task Force Recommendations

Based on continued discussions and feedback collected during the design charrettes, the GETF has proposed a final list of eleven (11) recommendations, which are listed below.

I. <u>Curriculum Structure</u>

- 1. Reevaluate and redesign the GE subject area educational objectives. (see p. A-1)
- 2. Require learning related to diversity and inclusion in all GE subject areas. (p. A-5)
- 3. Establish a single GE curriculum that (as far as is possible) is consistent for all Cal Poly students. (p. A-8)

II. Pathways and Integration

- 1. Integrate interdisciplinary learning opportunities and experiences into GE to address contemporary issues and real-world problems at the lower- and upper-division levels. (p. A-11)
- 2. Create combinations of 2-7 linked GE courses in different subject areas to provide students with opportunities to make more coherent and meaningful connections, and to provide students with opportunities to complete formal pathways and/or minors. (p. A-15)

III. Pedagogy and Course Design

1. Champion and support the broad application of Learn By Doing pedagogies and high-impact learning practices in GE. (p. A-18)

IV. Message and Outreach

- 1. Incorporate content and/or advising into foundational, lower-division GE courses to foster student learning related to GE mission, objectives, structure, value, and experiences. (p. A-21)
- 2. Redesign advising tools (e.g., curriculum sheets, degree flowcharts, PolyProfile, dashboards, DPR, etc.) to illustrate and promote an integrative, meaningful, and connected GE curriculum. (p. A-23)
- 3. Rename the Cal Poly "General Education" Program to better reflect its goals, objectives, and strengths, and have all campus materials refer to GE subject areas and subareas by their names (rather than letters and numbers). (p. A-25)
- 4. Select and mentor GE liaisons, ambassadors, advocates, or advisors (students, faculty, and staff) in each campus program, department, and college. (p. A-27)

V. Program Management and Assessment

1. Provide the GE Program with the resources necessary to support a full-time director/chair, a staff member, and office space, thus allowing for the appropriate expansion of administrative responsibilities under the GE Program (e.g., redesign of GE subject areas, development and management of pilot initiatives, advocacy efforts, course renewal, enrollment management, scheduling, space and learning environment issues, innovative and sustainable assessment, etc.). (p. A-29)

Each recommendation is described in more detail in Appendix A of this report. Included in this appendix are separate worksheets for each recommendation. Each worksheet summarizes the following:

- Guiding Principles Informing this Recommendation: The GETF Guiding Principles (1 through 5) that are most closely linked with the recommendation.
- Program Development Options: Additional background information regarding the recommendation and ideas for implementation of recommendation at Cal Poly.
- Rationale for this Recommendation: Reasons why the GETF selected the recommendation and believes it is important.
- Potential Challenges and Concerns During Development and Implementation: Anticipated concerns and/or challenges regarding the recommendation, as raised by GETF members and stakeholders.
- Task Force Priority Ranking: A low, medium, or high priority ranking for the recommendation, as defined by the GETF members.

Additional information regarding the GETF recommendations is included in Appendix B. This appendix includes example GE pathways proposed by Cal Poly stakeholders and supports Recommendation II.2. Books, articles, and other publications consulted by members of the Task Force and providing context for the recommendations and findings included in this report are listed in a Bibliography, which is included as Appendix H.



REEVALUATING AND REDESIGNING GE AREA OBJECTIVES GE Task Force Recommendation: Curriculum Structure #1 of 3

Task Force Priority Ranking		
Low	Medium	High
·		X

Reevaluate and redesign the GE subject area educational objectives.

Guiding Principles informing this recommendation: 1 2 3 4 5

- ❖ The GETF recommends that our GE Program commit to a large-scale rethinking of GE area educational objectives and criteria, and that each subject area be rebuilt accordingly. This action is even more important with the CSU's April 2018 clarifications of Executive Order 1100-R and the changes to our GE system that these call for. We recommend that this process be carried out in a manner that:
 - is consistent with the subject area definitions and distribution model specified in EO 1100-R;
 - best fulfills Cal Poly's GE Program Learning Objectives (PLOs) and CSU GE requirements;
 - incorporates and integrates Cal Poly's University, Diversity, and Sustainability Learning Objectives;
 - recognizes the importance of high-impact educational practices and information literacy across the GE curriculum;
 - maximizes student flexibility;
 - resolves the present redundancies between the official Educational Objectives (EOs) and Criteria (CRs) for each GE area;
 - provides CRs that support EOs and do not restrict appropriate access to specific areas; and
 - best enables the **Pathways and Integration** recommendations in **Section II** of these recommendations.
- ❖ The GETF recommends a three-step review and redesign process that would work from the CSU GE requirements and reconstruct new sets of educational objectives for each GE area. The three steps are:
 - (1) Appointing GE Educational Objective Work Groups for Areas A-E: These work groups would include 5-7 faculty members from disciplines and departments (no more than one member per department) that either currently offer courses or could reasonably offer courses in the subject area. The work groups would take 3-4 months to craft objectives based on guidelines and principles noted above. Efforts would be made to ensure broad work group membership and participation by T/TT faculty and lecturers across all of Cal Poly's colleges.
 - (2) (After approval of educational objectives by the Academic Senate) Opening each GE area to new course proposals: At this point, the GE Educational Objective Work Groups would work to communicate key ideas and features of each GE area to colleges and departments.
 - (3) Designing a schedule for area work groups to review all existing GE courses for agreement with the GE Program Learning Objectives (PLOs) and the new GE area educational objectives. This GE "refresh" program could be carried out in a staged process: for example, reviewing courses by GE area or in chronological order of their original approval by GE.
- ❖ The GETF recommends that this process of redesign also sets the goal of having all Cal Poly students meet the upper-division requirements for GE Areas B, C, and D, as specified in CSU EO 1100-R, and without increasing GE requirements for any program. (See **Recommendation I.3.**)
- ❖ In GE Areas A, C and D, this redesign should include special attention to new educational objectives relating to global themes and international cultural competencies.

Program Development Options (continued):

- ❖ In GE Area C, this redesign should include special attention to the question of how to allow more opportunities for course credit in Languages Other Than English.
- ❖ In each GE area (and perhaps especially Areas A and E), this redesign should include special attention to new educational objectives requiring some amount of learning and discussion related to GE and its importance to a Cal Poly education. (See Recommendation IV.1 and GE PLO#4.)
- ❖ The GETF and this recommendation support the ongoing work of the GEGB to evaluate and redesign educational objectives and criteria related to technology learning (formerly Area F).
- ❖ During this redesign process, the GEGB and colleagues in each GE area should also reevaluate whether existing AP exam policies fit our GE Program Learning Objectives and whether some AP exams that presently count for GE credits should be reclassified as applicable to elective credit.

Rationale for this Recommendation:

- ❖ Elements of Cal Poly's GE course template and subject area distribution do not comply with CSU Executive Order 1100-R ("General Education Breadth Requirements Revised," August 2017). These concerns were clarified by the CSU in April 2018.
- ❖ The Cal Poly GE Program, educational objectives, and criteria have not been formally reviewed and revised in about 20 years.
- ❖ Strengthening Cal Poly's portfolio of academic programs, including General Education, is a Strategic Priority (#4) under the draft 2018-2023 Cal Poly Strategic Plan (September 10, 2018).
- ❖ The GEGB developed and approved the GE Program Learning Objectives (PLOs) in 2014. The PLOs have not yet been fully incorporated into the course review and approval process. In addition, when approved, the PLOs were considered somewhat aspirational. It is time for the GE subject areas, objectives, and criteria to be further developed and redesigned with the GE PLOs in mind.
- ❖ In response to GE Program Review (in 2016), the review team recommended that Cal Poly consider restructuring the GE subareas to increase flexibility in requirements, while still complying with CSU EO 1100-R.
- ❖ In response to GE Program Review (in 2016), the GEGB prioritized a review of GE course requirements and criteria/expected outcomes with the GE areas, integration of the previously approved GE PLOs, and integration of issues related to diversity/inclusivity, technology, etc.
- At this point in the history of the American university, many now question the old myth/practice of "coverage," where individual courses provide all that a student will need to know in a discipline. (Others sometimes refer to this approach as "inoculation," where a single course on a given topic or in a given discipline in and of itself provides students with some critical information or awareness that does not need to be addressed again.) With lifelong learning as a University Learning Objective, instructors should no longer proceed from the assumption that all of a student's learning will end when they leave Cal Poly. Or, in other words, it is not the responsibility of an instructor in a GE course to feel that they have 40 hours to teach students everything they will ever need to know about a given subject. Likewise, GE area educational objectives should not be constructed based on these antiquated assumptions. Freeing ourselves from myths of "coverage," or of GE as a checklist where individual disciplinary squares are filled in until the student is fully educated, will allow us to pursue more innovative forms of learning in GE (as explained more in Section II of these recommendations). One article that discusses this approach is: Lendol Calder, "Uncoverage: Toward a Signature Pedagogy for the History Survey," Journal of American History 92.4 (March 2006): 1358-1370.

Rationale for this Recommendation (continued):

- ❖ Our GE program must address global themes and international cultural competencies in new ways, since, as defined in the EO 1100-R course distribution requirements, subject Area D cannot include the D2 (Political Economy) and D3 (Comparative Social Institutions) subareas. In our current GE system, these subareas include most of the global learning objectives and criteria. Two articles which are helpful in understanding the significance of global learning are:
 - Jill E. Blondin and Rachel Gable, "Global Learning as Liberal Learning for All Majors," *Peer Review* 20.1 (Winter 2018), https://www.aacu.org/peerreview/2018/Winter/VCU
 - Stephanie Doscher and Hilary Landorf, "Universal Global Learning, Inclusive Excellence, and Higher Education's Greater Purpose," *Peer Review* 20.1 (Winter 2018), https://www.aacu.org/peerreview/2018/Winter/FIU
- ❖ Adam Weinberg, President of Denison University, recently wrote an article titled "Globalizing the Liberal Arts," in which he made the following three points about the importance of a "deeply global" college experience:
 - 1. Across the professions, cross-cultural competencies, and other global attributes are growing in importance.
 - 2. Our civic futures locally, regionally, and globally will depend upon citizens who understand issues as global and complex, and who see difference as a source of strength for complex problem-solving.
 - 3. Being globally literate, confident, and engaged opens up endless possibilities to add meaning to one's life. (*LinkedIn Pulse*, 2 October 2018, http://bit.ly/2IRB6yC)

These could be considered important guiding principles for a Cal Poly GE Program that retains a global emphasis despite the changes in EO 1100-R.

- ❖ Many Cal Poly GE Program stakeholders believe the program could be improved by providing more credit options for studying Languages Other Than English. Given Cal Poly's current GE structure, community college transfer students have more options to study Languages Other Than English for GE credit under Area C, when compared with non-transfer Cal Poly students.
- ❖ Offering more opportunities for language study to count towards GE Arts and Humanities (Area C) credit would help our students to build global competencies, improve their analytical skills, distinguish themselves as potential employees, and become more cultured and empathetic citizens. Students with more experience in Languages Other Than English may be more likely to participate in, and also get more out of, study abroad and international experiences.
- ❖ The GE curriculum will not succeed if we simply assume that students will by themselves figure out the significance of the program. Instead, we strongly recommend the formalization of in-class learning and discussion of the GE Program and its importance to a Cal Poly education.
- ❖ CSU Executive Order No. 1036 ("Systemwide Admission Eligibility and/or Baccalaureate Credit Awarded for External Examinations, Experiential Learning, and Instruction in Non-Collegiate Settings," July 2008) states in Section 1.2.3.1, "For their students who enter as freshmen, campuses shall establish policies specifying whether the credits earned by passing standardized external examinations or systemwide examinations shall be applicable as general education, major, or elective credits." This provides opportunity for the GEGB and the Educational Objective Work Groups to review how AP exams are currently counted for GE credit.

- * Redesigning the GE educational objectives is a significant effort. Cal Poly will need to find and commit resources to this project so that faculty have the time necessary to complete their work.
- * Revision and redesign of the GE educational objectives will likely need to occur rather quickly (i.e., within months), given the Cal Poly catalog review cycle/schedule and the need to comply with CSU EO 1100-R.
- Some existing programs and departments will be more impacted than others when considering changes to the GE template and distribution of courses within the GE areas/subareas. Affected programs should be identified and consulted early in the revision process. The GE Educational Objective Work Groups, GEGB, Academic Senate, and Academic Programs & Planning should work closely with these groups to develop and implement effective solutions.
- ❖ With regard to GE credit in Languages Other Than English, the World Languages and Cultures Department would need to develop a plan for meeting potentially higher demand. The GE Program would also need to assess existing language courses to identify those meeting the GE educational objectives for GE Area C (i.e. those courses that "do not focus solely on skills acquisition but also contain a substantial cultural component").
- ❖ Instructors in GE courses may be reluctant to "give up" class time or to add new assignments relating to the meaning of the GE curriculum and its significance to a 21st-century university education. This reluctance is understandable, but we hope that the GE Educational Objective Work Groups would work to explain to faculty colleagues the importance of explicit attention to GE within GE courses themselves.

DIVERSITY LEARNING AND INSTRUCTION GE Task Force Recommendation: Curriculum Structure #2 of 3 Require learning related to diversity and inclusion in all GE subject areas. Guiding Principles informing this recommendation: 1 2 3 4 5

- ❖ Educational Objectives for each GE Area should address <u>in some way</u> Cal Poly's Diversity Learning Objectives. The DLOs, as revised in 2017, are as follows:
 - 1. Demonstrate an understanding of relationships between diversity, inequality, and social, economic, and political power both in the United States and globally.
 - 2. Demonstrate an understanding of contributions made by individuals from diverse and/or underrepresented groups to our local, national, and global communities.
 - 3. Critically examine their own attitudes about diverse and/or underrepresented groups.
 - 4. Consider perspectives of diverse groups to inform reasonable decisions.
 - 5. Function as members of society and as professionals with people who have ideas, beliefs, attitudes, and behaviors that are different from their own.
- ❖ The GETF believes that the Cal Poly community can work together to determine which values relating to diversity and inclusion are central to a Cal Poly education, and how we can integrate these ideas most effectively into GE.
- ❖ The GE Educational Objective Work Groups (see **Recommendation I.1**) should work to ensure that learning related to diversity and inclusion be a feature of lower- and upper-division GE coursework. We encourage each group to think creatively about how learning related to diversity and inclusion can best be instituted in each GE area. However, this is too important at this historical moment for any area to "opt out."
- The GE Educational Objective Work Groups must seek input from the Office of University Diversity and Inclusion (OUDI), the OUDI Curricular Strategy Group, the Center for Teaching, Learning, and Technology (CTLT), and our college-specific faculty/student diversity committees.
- Faculty, programs, and departments with interests and expertise related to sustainability should take an active role in helping to extend diversity learning to all GE subject areas. By definition, sustainability addresses environmental, economic, and social factors, and therefore often links with topics such as environmental justice, community building, cultural preservation, diversity, and inclusion. An opportunity exists now for Cal Poly faculty to collaborate in addressing diversity and sustainability learning across the GE curriculum. The following reference includes numerous examples of how sustainability has been incorporated into GE courses and program curricula to address diversity learning and social justice issues: Peggy Barlett and Geoffrey Chase, eds., Sustainability in Higher Education: Stories and Strategies for Transformation (MIT Press, 2013). Susan Santone also presents ideas on this topic in Reframing the Curriculum: Design for Social Justice and Sustainability (Routledge, 2019).
- ❖ The GETF supports ongoing work by the USCP Review Committee, GEGB, and Academic Senate Curriculum Committee to review, evaluate, and renew existing courses with a USCP designation. We should learn from the USCP experience (development, implementation, review, redesign) in addressing this GETF recommendation.

Program Development Options (continued):

- * Resources like CTLT's TIDE (Teaching Inclusion and Diversity Everywhere) will be invaluable in helping GE instructors understand how to incorporate diversity principles and inclusion practices into any course.
- The GETF recommends the development of interdisciplinary GE linked courses, pathways, and minors related to diversity, inclusion, social justice, sustainability, and other important topics (see **Recommendation II.2**) as means for addressing diversity learning across the GE curriculum.

Rationale for this Recommendation:

- The members of the GETF and many GE stakeholders have identified diversity learning and instruction as a primary element of any GE redesign efforts.
- ❖ Students hurt, traumatized, confused and upset by the latest outbreak of racist behavior at Cal Poly are looking to the GE Program to help make Cal Poly a diverse and inclusive university.
- ❖ Many courses presently offered in GE do an excellent job in educating our students about diversity and inclusion. However, it is not clear how or where these topics are approached at a programmatic level. Thinking about diversity and inclusion at the program and area levels is needed if our GE curriculum is to meet urgent expectations.
- ❖ Developing a rich campus culture of diversity and inclusion is a Strategic Priority (#3) under the draft 2018-2023 Cal Poly Strategic Plan (September 10, 2018; http://strategicplanning.calpoly.edu/). Specifically, Goal #3C states: "Prepare all students for their future through an education the includes diversity learning and reflects the principles of Inclusive Excellence." The GE curriculum provides the opportunity to reach all students in this work.
- Creating an engaged, vibrant, and healthy community is a Strategic Priority (#5) under the draft 2018-2023 Cal Poly Strategic Plan. Specifically, Goal #5A states: "Develop an ethos of social responsibility in every campus community member, with an emphasis on students." Diversity and sustainability learning relate directly to this strategic priority. The GE curriculum provides the opportunity to reach all students in this work.
- ❖ In response to GE Program Review (in 2016), the GEGB prioritized the integration of issues related to diversity/inclusivity into the GE curriculum.
- The GE Program is an important factor in whether Cal Poly will live up to its promise of providing opportunities for all Californians, regardless of race, ethnicity, gender, sexual orientation, national origin, ability, socio-economic status, or religion.

Potential Challenges and Concerns during Development and Implementation:

❖ It may be difficult for instructors in some GE areas to understand how diversity and inclusion can be incorporated into their courses. It will likely take a sustained effort to educate instructors how this can be done and to ensure that this is indeed present throughout the GE curriculum. Additional resources may be needed for instructor workshops and professional development.

- ❖ Goals for diversity learning and instruction need to be considered at the program and area levels, which will require effective communication and coordination between the GEGB and all of the GE Area Educational Objective Work Groups. This recommendation proposes diversity learning across the entire program and all subject areas. With this recommendation, we do not imply that all DLOs be addressed in each and every GE area (or subarea). Thoughtful design is needed to effectively and efficiently distribute diversity learning objectives and outcomes across the GE curriculum.
- The divided and politicized nature of American society in 2018 means that many discussions regarding diversity and inclusion can be tense, fraught, and exhausting for instructor and student alike. However, this does not mean that we should wait for a "better time" to have these discussions; Cal Poly as an institution is already behind in this regard. OUDI, CTLT, and instructors already teaching in this area have identified many resources and methods that support diversity learning and instruction. More recent articles that help explain how these subjects can be addressed effectively and meaningfully in the classroom include:
 - Kathleen F. Gabriel, "Five Ways to Promote a More Inclusive Classroom," *Faculty Focus*, 21 May 2018, http://bit.ly/2KCCwwl
 - Angie Chuang, "Woke 101: If Starbucks struggled to teach about race, can universities' diversity curriculums do better?" *Grade Point* blog, *Washington Post*, 13 June 2018, https://wapo.st/2B2qRYe

Task Force Priority Ranking SINGLE CONSISTENT GE CURRICULUM Medium Low High GE Task Force Recommendation: Curriculum Structure #3 of 3 X Establish a single GE curriculum that (as much as is possible) is consistent for all Cal Poly students.

2 3 **Guiding Principles informing this recommendation:** 5

- ❖ Cal Poly is unique for having three separate GE curricula: one for students from the College of Liberal Arts and the Liberal Arts and Engineering Studies and Liberal Studies programs, one for students from the College of Engineering (except for LAES students), and one for students from our other four colleges (except for LS students). There are understandable reasons for administering these different GE curricula. However, members of the GETF feel that Cal Poly would be better served by a GE curriculum based on ideas of consistency (as much as is possible) across all degree programs and colleges.
- One of the most important benefits of a more consistent GE curriculum would be a requirement that all Cal Poly students take 12 upper-division units in GE, as per CSU standards. Currently, most Cal Poly students take 12 units of upper-division GE courses in subareas C4 (Arts and Humanities, writing-intensive), D5 (Society and the Individual, writing-intensive), and F/B7 (Technology). However, students enrolled in engineering programs are only required to take eight upper-division GE units in subareas C4 and B6 (Science and Mathematics elective).
- The GETF feels strongly that our GE pattern should be redesigned and made more flexible so that all Cal Poly students take three of these high-impact upper-division GE courses, without adding units to the high-unit engineering curricula. One solution could be that engineering students' Area D "exemption" comes at the lower-division level instead of upper-division.
- The one difference that will likely continue to exist between CENG students' GE curriculum and that of all of Cal Poly's other students comes in subarea B6 (Science and Mathematics Upper-Division Elective for Engineers only). All other students will take an upper-division course in subarea F/B7 (Technology), but this is still a more "unified" program in that all Cal Poly students would be doing upper-division work in Areas B, C, and D. This minor difference in upper-division Area B coursework hopefully would be less subject to misunderstanding than the current "exemptions" that engineering students receive from GE D5 and F/B7.
- The CSU GE template, which is based on the semester system, consists of 48 semester units, or 16 courses. The fact that our GE curriculum consists of 72 quarter units, or 18 courses, allows Cal Poly to offer two extra courses within GE, which allows for some added flexibility in attempting to achieve this recommendation. The GETF recommends that the GEGB and GE Educational Objective Work Groups seriously consider how this leeway could be used to provide a more unified GE curriculum. In the CSU GE template, Areas B, C, and D consist of 12 semester units each. Because this number translates to 18 quarter units, Cal Poly may choose whether these areas consist of 16 or 20 units (as long as they, together with Areas A and E, add to 72 total units). This leeway also provides the opportunity, if Areas B, C, and D are set at 16 units each, to offer 8 elective GE units that students could take in any area they wish. Such a "GE electives" program could be tested using a pilot, perhaps with students who participate in a GE pathway. (See Recommendation II.2.)

Rationale for this Recommendation:

❖ Many GE stakeholders at Cal Poly have long felt that defining GE curricula differently by college and/or program gives the wrong impression about the importance of GE and the university's commitment to writing as well as learning in the humanities and social sciences. It seems clear that many Cal Poly students internalize incorrect ideas and assumptions about the different curricula available, and that these misunderstandings contribute to already strong patterns of "majorism." As noted on Cal Poly's "Advancing Cultural Change: Emergent Findings" website,

"One third of respondents to the 2014 OUDI Campus Climate Survey indicated they had been the targets of exclusionary conduct related to their major field of study. Students call this exclusionary conduct 'majorism,' meant to insult or reject non-engineering knowledge and the pursuit of liberal arts education. Majorism is an epistemic bias that grants prestige to technical fields and demeans socially applied education. Majorism is found both between colleges and within colleges. ACC findings suggest connections between majorism, students' career aspirations and gender and race segregation in major fields of study both in the student body and faculty ranks." (https://socialsciences.calpoly.edu/advancing-cultural-change/emerging-findings)

The GETF believes that unifying the GE curriculum could do much to reverse these longstanding negative trends.

- ❖ Upper-division GE courses are designed to be sites of high-impact practices such as: writing-intensive courses, collaborative assignments and projects, undergraduate research, community-based learning, capstone projects, and culminating experiences. These are important elements of a university education and should not be understood as optional or not applicable to certain majors. Research on capstone projects in GE includes the article by Peggy Redman, "Going Beyond the Requirement: The Capstone Experience," *Peer Review* 15.4 (Fall 2013).
- ❖ The necessary adjustments that will come with the new GE curriculum called for by the April 2018 clarifications to CSU Executive Order 1100 make this an opportune time to make this change.
- ❖ A preponderance of recent research shows that U.S. employers are eager to hire college graduates with stronger written and oral communication skills, global and intercultural fluency, and leadership skills. For example:
 - Loretta Jackson-Hayes, "We don't need more STEM majors. We need more STEM majors with liberal arts training," *Washington Post*, 18 February 2015, https://wapo.st/2ATSfHw
 - Jeremy Bauer-Wolf, "Overconfident Students, Dubious Employers," *Inside Higher Ed*, 23 February 2018, http://bit.ly/2ORkSYO
 - Jeffrey J. Selingo, "Forget coding. It's the soft skills, stupid. And that's what schools should be teaching," *Washington Post*, *Grade Point* blog, 20 April 2018, https://wapo.st/2M3mG3t

Upper-division GE courses using high-impact practices like those described above are ideal places for our students to improve in these areas.

The popularity among CENG majors of courses like ISLA 303 Values and Technology (GE C4; "Humanistic investigation into the theoretical and practical applications of technology with specific reference to the social effects of technological change") suggests that these same students would have similar interests in GE Area D courses that grapple with ideas of science, technology, sustainability, society, and the individual.

Rationale for this Recommendation (continued):

- * "Student equity" was a fundamental issue in the recent revision to CSU Executive Order 1100 on GE. Upper-division GE coursework seems central enough to a comprehensive polytechnic university curriculum that this should be seen as an important step in that direction. Student equity for our undergraduates as well as our community college transfer students would be well served by the goal of unifying the GE curriculum across our different colleges.
- ❖ In response to GE Program Review (in 2016), the review team recommended building connections into the structures of both GE and major programs to strengthen the relation between GE and the major. The review team suggested using upper division GE capstone courses as one way of creating such connections.
- ❖ In response to GE Program Review (in 2016), the Cal Poly GE Governance Board prioritized that Cal Poly investigate opportunities to create more flexibility in the GE pattern (by examining Cal Poly's structure and requirements as compared to those required by the CSU in EO 1100).
- ❖ Cal Poly students from all majors see intellectual and career value in pursuing minors. Existing minors and those potentially proposed as pathways (See **Section II** of these recommendations) include upper-division course requirements. Some existing minors include upper-division course options that count toward GE subareas C4, D5, and F/B7. Requiring a consistent upper-division GE curriculum could provide added flexibility and incentive to those students wishing to complete minors (or GE pathways).

- Redesigning the GE curriculum and changing the distribution of units to subject areas B, C, and D represents a significant effort requiring considerable reflection, discussion, and planning. Decisions on the distribution of units within the GE curriculum will need to be made early in the redesign process. This effort will require effective communication and coordination between the GEGB and all of the GE Area Educational Objective Work Groups.
- ❖ Given the number of high-unit degree programs on campus, it will be difficult to design a single GE curriculum that is consistent for all Cal Poly students. The GEGB and GE Area Educational Objective Work Groups will need to consult with faculty in the high-unit degree programs to understand constraints, potential obstacles, and options for creative solutions.
- ❖ Any decision on the (re)distribution of units within the GE curriculum will need to consider the needs of community college transfer students entering high-unit degree programs. Equity and fairness must be considered when considering redesign options and GE certification for these students.

INTERDISCIPLINARY LEARNING

GE Task Force Recommendation: Pathways & Integration #1 of 2

Task Force Priority Ranking		
Low	Medium	High
		X

Integrate interdisciplinary learning opportunities and experiences into GE to address contemporary issues and real-world problems at the lower- and upper-division levels.

Guiding Principles informing this recommendation: 1 2 3 4 5

- ❖ The GETF recommends steps be taken at the college level to make joint offerings of GE courses easier to facilitate. An interdisciplinary approach to GE will only be successful if faculty members are encouraged in meaningful ways to participate in joint and team-teaching offerings and to innovate in these directions. Colleges, departments, and scheduling staff should work to make sure that serious educational proposals that would benefit students in these directions are not derailed because of minor inefficiencies or technical inconveniences (i.e., disputes over how WTUs are awarded, etc.).
- ❖ Modify the existing educational objectives for all GE Areas (i.e., A through E) to include specific outcomes and best practices related to interdisciplinary learning. (See **Recommendation I.1**)
- ❖ Develop a set of criteria for developing and approving "I-Courses" in the GE Program. This idea is based on the University of Maryland GE Program's signature "I-Series," which is made up of interdisciplinary courses that "spark the imagination, demand intellect, and inspire innovation. They challenge students to wrestle with big questions, and examine the ways that different disciplines address them." (See http://www.gened.umd.edu/i-series/iseries.html.) Cal Poly should develop criteria that include minimum standards or requirements related to team teaching, course topics, learning objectives, assessment methods, and collaboration across colleges and/or programs.
- * "I-Courses" would be evaluated for GE using a value-added approach where a possible lack of specific disciplinary coverage is balanced by the opportunity for students to understand real-world problems from diverse perspectives.
- Provide sustained workload incentives for instructional teams assigned to "I-Courses".
- Solicit, develop, and approve "I-Courses" for all of the existing GE Areas (i.e., A through E) at the lower- and upper-division levels. These courses should also be integrated into GE pathways and minor programs to promote student interest and reward achievement. Where possible, incorporate these courses into existing interdisciplinary programs and experiences.
- ❖ Consider integrating a First-Year Experience (three courses and 12 units) into Cal Poly's GE program. The First-Year Experience (FYE) would be cohort-based, where a group of about 30 first-year students take three linked GE courses together over three quarters. These courses could come from any three GE Areas, and could include one "I-Course" as explained above. This recommendation takes advantage of the existing system of full-year block scheduling to create a meaningful and interdisciplinary themed FYE. Student and faculty participation in linked courses in a FYE would also help seed the idea that this is a viable format for courses beyond the first year. The GETF recommends that this FYE format begin with a pilot program of a limited number of linked courses, with incoming first-year students given the opportunity to sign up to participate and to indicate preferred areas of study through summer surveys.

Program Development Options (continued):

- ❖ The GETF supports the GEGB's ongoing development of a fast-track curricular mechanism for reviewing, approving, and teaching one-time or limited-time GE courses focused on contemporary issues. A set of UNIV course numbers (ex. 111-115, 311-315: one lower-division and one upper-division course for each GE area) could be assigned for proposed courses on socially, culturally, scientifically, and/or technologically current topics. As per past UNIV criteria, these courses "should be multidisciplinary or interdisciplinary, team-taught (or have the potential to be taught at different times) by identified individuals from different colleges."
- ❖ Interdisciplinary learning opportunities could also be achieved by linking two or three GE courses together for cohorts of students, with some courses offered in large-enrollment format and others as smaller classes. This would allow students to incorporate different learning styles and be exposed to different pedagogies while within established cohorts.

Rationale for this Recommendation:

- ❖ Interdisciplinary courses on issues of contemporary interest would allow students to learn how people from different academic disciplines collaborate to solve "real-world" problems. Students around campus consistently expressed to GETF members their interest in these types of courses and approaches. Courses and experiences like this would improve meaning making for students, allowing them to follow their passions in intellectual ways while introducing them to innovative pedagogies.
- ❖ In response to GE Program Review (in 2016), the review team suggested that Cal Poly provide "opportunities for students to explore big questions that interest them from multiple disciplinary perspectives across several GE areas."
- ❖ GE Program Learning Objective (PLO) #5 states: "Collaborate with people of different backgrounds, values, and experience." In response to GE Program Review (in 2016), the Cal Poly GEGB prioritized that Cal Poly work to integrate the previously approved GE PLOs. In addition, the GEGB prioritized that Cal Poly provide meaning making opportunities for students.
- ❖ Interdisciplinary courses would draw on Cal Poly faculty interests, abilities, and expertise while encouraging collaborative work across programs, departments, and colleges. Faculty members continue to express interest in teaching interdisciplinary courses.
- ❖ Other universities have implemented successful interdisciplinary programs and courses under general education. For example, the University of California Commission on General Education has recommended, "As one alternative to the dominant structure of general education—a sprawl of cafeteria-style breadth requirements—we recommend the creation of structured interdisciplinary bundles of courses on timely intellectual and applied issues, made available to students as discrete, named sets and identified as such on students' transcripts." (General Education in the 21st Century: A Report of the University of California Commission on General Education, 2007). Or, see other articles such as:
 - Brian A. Vander Schee, "Changing General Education Perceptions through Perspectives and the Interdisciplinary First-Year Seminar," *International Journal of Teaching and Learning in Higher Education* 23.3 (2011)
 - Thomas Hothem, "Integrated General Education and the Extent of Interdisciplinarity: The University of California–Merced's Core 1 Curriculum," *Journal of General Education* 62.2-3 (2013)

Rationale for this Recommendation (continued):

- ❖ Members of the GETF and program stakeholders believe the GE Program will be improved by providing more interdisciplinary learning experiences.
- An opportunity exists to learn from recently implemented interdisciplinary experiences (e.g., the Science, Technology & Society Minors Program in our College of Liberal Arts) to provide improved learning experiences for students.
- Strengthening our portfolio of academic programs is a Strategic Priority (#4) under the draft 2018-2023 Cal Poly Strategic Plan (September 10, 2018; http://strategicplanning.calpoly.edu/). Specifically, Goal #4D states: "Address real-world problems, both local and global, through interdisciplinary and international experiences, as well as, community and industry partnerships." Interdisciplinary learning experiences in GE will provide opportunities in this area.
- ❖ Cohort learning is well understood to help first-year and first-generation college students. One useful model is the University of Toronto's First-Year Learning Communities (FLC) Program, which has set goals to:
 - 1. Help students connect with each other, with faculty and staff, and the many opportunities available on campus.
 - 2. Help students navigate their transition from high school to university.
 - 3. Help students understand and develop the strategies and skills needed to be a successful university student.
 - 4. Help students adjust to the teaching style at university including becoming familiar with the culture and expectations of the institution and the expectations of instructors, and how to be successful in an environment where students are responsible for their own learning.
 - 5. Help students make new friends and develop a supportive peer network, including forming and sustaining a successful study group.
 - 6. Introduce students to the university resources, facilities, and services that will assist them to achieve their personal and academic goals.
 - 7. Promote the idea that a university education is more than attending classes, thus encourage students to participate in out-of-class campus activities.
 - 8. Create an atmosphere within the FLC that minimizes anxiety, promotes positive attitudes, and stimulates an excitement for learning.
 - 9. Enhance each student's sense of belonging and identity with the University.

(See Corey A. Goldman, "A Cohort-based Learning Community Enhances Academic Success and Satisfaction with University Experience for First-Year Students," *The Canadian Journal for the Scholarship of Teaching and Learning* 3.2, December 2012.)

- ❖ Cal Poly's current cohort format, organized around social groups set by WOW and University Housing, is effective and popular. Cohorts explicitly organized around GE learning could help recenter academics and study practices within the way that students understand the Cal Poly experience.
- ❖ Establishing GE-based student cohorts would help to emphasize the centrality of the GE Program at Cal Poly. These cohorts would also help the program to achieve stated goals of meaning-making and active student engagement with GE learning objectives.

- There may be limits on funding that make it difficult to provide sustained workload incentives for interdisciplinary instructional teams and team-taught courses.
- ❖ Cohort experiences will be difficult to implement for a number of reasons, including scheduling constraints imposed by the different majors, campus classroom space constraints, and varied levels of GE credit earned by incoming students via AP exams. GE cohort experiences at Cal Poly should be piloted on a smaller-scale to investigate best practices and feasibility.

DEVELOPMENT OF LINKED GE PATHWAYS GE Task Force Recommendation: Pathways and Integration #2 of 2

Task Force Priority Ranking		
Low	Medium	High
		X

Create combinations of 2-7 linked GE courses in different subject areas to provide students with opportunities to make more coherent and meaningful connections, and to provide students with opportunities to complete formal pathways and/or minors.

Guiding Principles informing this recommendation:	1	2	3	4	5
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- ❖ GE course pathways could be linked together in many different configurations: 2-to-3-course GE Connections, 4-5-course GE Concentrations, and perhaps all the way to 6-7-course GE Minor Programs. These different types of pathways would be advertised in clear and appealing ways. Completion of a pathway would be denoted on a student's transcript.
- Existing minor programs could develop GE pathways that would help attract students and perhaps assist them in completing their full minor requirements in a timely fashion.
- ❖ GE pathways could be used to create more integrated upper-division GE capstone experiences, thus providing one more high-impact educational practice within the GE curriculum.
- Specific upper-division pathways could be constructed to allow upper-division transfer students to take part in this option. This would help meet the CSU goal of a GE program that provides equitable opportunity for all students.
- ❖ Before moving forward with this recommendation, there is a lot that can be learned from other programs and institutions that have implemented pathway-like programs in GE. For example, CSU Chico recently assessed its new GE program after 5+ years experimenting with GE pathways. In addition, Virginia Tech just implemented a GE pathway program after several years of study and planning. Here at Cal Poly, we can learn from existing interdisciplinary minor programs.
- Novel pathway formats could be proposed, such as pathways that include a course from each of the six colleges, or that provide a distinctive Cal Poly "brand" for our GE program.
- ❖ For example, a group that includes members of the Academic Senate Sustainability Committee has proposed a four-course "Sustainability Concentration" that incorporates GE courses approved under the Cal Poly Sustainability Catalog (SUSCAT). Details regarding this pathway are found in Appendix B: General Education Pathways Supplement. In their proposal, the authors show how students from different colleges and majors might customize their sustainability pathway to complement their own interests and major course of study.
- ❖ The **Pathways Supplement** includes additional ideas for GE pathways, including "East Asia," "Migration and Migrants," "Global Studies," and "Food, Culture, and Politics." Many other GE pathways could be investigated, given student interests and the expertise of Cal Poly faculty. Students proposed several interesting pathway topics during the 2018 GETF Design Charrettes.
- Articipation in GE pathways should not be forced on our students or faculty members; GE should retain a non-pathway option for students who are not interested in completing one of the available pathways.
- As an incentive and to enable student participation, some sort of registration priority or permission process could be made available for GE pathway students for courses that are part of their pathway.
- ❖ The existence of GE pathways could be leveraged to design summer GE programs or packages encouraging student enrollment in Cal Poly GE classes.

Rationale for this Recommendation:

- Cal Poly has experts in so many important fields that we would have the potential to create worldclass pathways in fields combining social, artistic, scientific, and technological modes of inquiry. These pathways could motivate our students to apply an energy, interest, curiosity and spirit of engagement to their GE courses.
- ❖ Linking courses into GE pathways would create the most authentic type of integrated learning experience. Religious historian Jonathan Z. Smith proclaimed an "iron law": "Students shall not be expected to integrate anything that the faculty can't or won't!" Jerry Gaff of AAC&U explained Smith's point more: "The rationale behind his proclamation is that integration of knowledge is not likely to occur *unless* the faculty model it in the classroom, they help students to acquire the skills to do it on their own, and they award credit for its achievement." (Jerry G. Gaff, "Overcoming Barriers: Interdisciplinary Studies in Disciplinary Institutions," *Issues In Integrative Studies* 12 [1994]: 169-180.) This approach does ring true to the experienced instructor.
- ❖ The present GE program is organized into subject areas that ideally could help students make connections between courses taken in different GE areas. Few GE courses, however, are set up to allow students to make these connections in any but the most incidental of ways. Also, few departments or programs have worked with each other to craft connections between courses in different GE subject areas. Consequently, many students do not experience GE as any kind of coherent program, but simply as a series of 18 random and unconnected disciplinary survey courses.
- ❖ In response to GE Program Review (in 2016), the GEGB prioritized a review of GE pathways, course patterns, minors, and themes as a way of improving meaning making for students.
- ❖ Pathways could help solve the common problem of student disengagement with GE and the common discourse that GE is "irrelevant."
- The use of GE pathways could provide for more predictable registration flows and patterns (for that number of students participating in them).
- ❖ Pathways could aid in the construction of meaningful academic connections between STEM and non-STEM learning, and between coursework and current world issues, helping students to become more socially and politically engaged. An author in the *Chronicle of Higher Education* recently wrote (citing a professor at Penn State Mont Alto), "colleges often allow students to experience other disciplines only glancingly. Students often see general-education requirements as little more than hoops to jump through ... and 'that's our fault,' since colleges have done a poor job of explaining how students might benefit from meeting them. But integration ... doesn't simply mean sampling a bunch of unrelated courses. It's about helping students draw explicit connections between them." (Beckie Supiano, "How Colleges Can Help STEM Students Think More Broadly," *Chronicle of Higher Education*, 9 May 2018, http://bit.ly/2P4J1vk.)

Potential Challenges and Concerns during Development and Implementation:

The design of a GE pathway program will require considerable thought and effort. Other institutions (e.g., CSU Chico) have experienced mixed success when rolling out a completely new university-wide pathway program from scratch. There is a lot to learn about how such a program might be implemented at Cal Poly. A scaled pilot program with a limited number of students would likely be the best way of investigating and developing GE pathways at Cal Poly. Such a program would require resources. The pilot would allow the GEGB to work with programs, departments, University Advising, the Registrar's Office, various curricular committees, and others to develop curricula, admissions procedures and standards, enrollment strategies, academic standards, tracking tools, assessment plans, etc.

- ❖ The successful introduction of substantial and appealing GE pathways will likely depend on how the GE subject area educational objectives are revised (See **Recommendation I.1**) and the structure of the GE curriculum/template (See **Recommendation I.3**).
- ❖ A common criticism of the pathway system is the possibility that students may not be able to enroll in pathway courses they are interested in due to high enrollment, schedule conflicts, or other factors. As a result, students may choose to (or unintentionally) delay graduation while waiting to enroll in a pathway course. However, if this was determined to be a problem, it could probably be addressed within the registration system via another version of "block scheduling," giving students access to GE courses they need for timely graduation (if not for their desired pathway). In addition, pathways will need to be flexible and designed with multiple course options/paths. In developing GE pathways, we can learn from those who have developed and managed minor programs on campus.
- There is some concern that participation in and commitment to a GE pathway could effectively result in less choice and exposure to fewer new ideas than the typical GE experience. However, we suggest that the educational value gained from this model would in most cases outweigh the lack of choice in selecting themed courses from two to seven GE areas. In addition, students would still be able to complete their GE requirements following a non-pathway option. Improved advising, messaging, and outreach (See Recommendations IV.1, IV.2, and IV.3) would help students to be intentional in their exploration of new ideas under GE and to understand the educational value associated with both pathway and non-pathway GE options.

LEARN BY DOING AND HIGH-IMPACT PRACTICES GE Task Force Recommendation: Pedagogy/Course Design #1 of 1

Task Force Priority Ranking		
Low	Medium	High
	X	

Champion and support the broad application of Learn By Doing pedagogies and high-impact learning practices in GE.

Guiding Principles informing this recommendation: 1 2 3 4 5

- ❖ Cal Poly should recruit and encourage instructors with expertise and experience in high-impact educational practices to teach GE courses, mentor GE instructors, and participate in GE governance. First-year seminars and experiences, writing-intensive courses, collaborative assignments and projects, undergraduate research, diversity and global learning, service learning, and capstone courses and projects are typically considered high-impact educational practices. For example, see George D. Kuh, High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter (Association of American Colleges & Universities, 2008).
- ❖ Provide opportunities (see **Recommendation II.1**) and incentives to promote the development and implementation of cohort experiences, interdisciplinary collaboration, first-year seminars, and other high-impact experiences in lower-division GE courses.
- ❖ Promote and develop interdisciplinary GE learning experiences and joint course offerings (see **Recommendation II.1**), especially those that involve the polytechnic disciplines (e.g., science, technology, engineering, agriculture, architecture, and mathematics) where many high-impact educational practices have been tested and established.
- ❖ Provide professional development opportunities and incentives for instructors to incorporate more high-impact educational practices into existing or proposed GE courses. Form a faculty community of practice that researches and advocates for high-impact and Learn By Doing practices in GE course instruction.
- ❖ Develop a best practice guide for implementing high-impact educational practices in large enrollment GE courses.
- ❖ Implement the Graduation Writing Requirement (GWR) Task Force recommendations for course capacity, course requirements, and instructor requirements for teaching GWR-approved upper-division courses.
- ❖ Allocate the resources necessary to limit enrollment in writing intensive GE courses to no more than 25 students.
- ❖ Establish Learn By Doing or high-impact practices criteria for developing, approving, and identifying GE courses in the curriculum that focus on writing, service learning, diversity learning, global perspectives, research, and/or project-based learning. Identify courses meeting the criteria for the above categories (and/or others) in the Cal Poly catalog. Model this process after the one currently used to identify courses in the Cal Poly Sustainability Catalog (https://suscat.calpoly.edu/).
- Add a section to the GE course proposal form where instructors describe how they use Learn By Doing and high-impact educational practices to address course and program learning objectives.

Rationale for this Recommendation:

- ❖ A Learn By Doing-centered approach would help Cal Poly to develop a distinctive GE program that is closely linked with the university's mission. Enhancing the success of all Cal Poly students is a Strategic Priority (#1) under the draft 2018-2023 Cal Poly Strategic Plan (September 10, 2018; http://strategicplanning.calpoly.edu/). Specifically, Goal #1A states: "Maintain and enhance Cal Poly's signature pedagogy of Learn By Doing." The GE curriculum provides the opportunity to reach all students in this work.
- ❖ In response to GE Program Review (in 2016), the review team recommended encouraging faculty to incorporate more Learn By Doing pedagogies in GE courses. The review team emphasized that this approach can promote greater student engagement, better understanding of the relevance of course content, and increased awareness of connections between GE and students' majors.
- ❖ The benefits and efficacy of more active, high-impact educational practices in GE instruction are well established. For example, following the 2007 National Survey of Student Engagement (NSSE), using information from 313,000 randomly selected first- and fourth-year students at 610 American and Canadian four-year colleges and universities, NSSE Director and Indiana University Bloomington professor George Kuh stated, "The results clearly show that colleges and universities should do everything possible to encourage undergraduates to participate in at least two high-impact activities, one in the first year and one later in their studies. Such experiences will better prepare students for a productive, satisfying lifetime of continuous learning." ("IU study" 2007)
- ❖ Emphasizing high-impact learning practices in GE provides Cal Poly students with the opportunity to experience Learn By Doing across their entire program of study (i.e., GE, support, and major courses). Therefore, the opportunity exists to develop a distinctive GE program that is closely and authentically linked with the university's mission. This is a Strategic Priority (Goal #4A) under the draft 2018-2023 Cal Poly Strategic Plan.
- ❖ Emphasizing Learn By Doing practices throughout the GE program will also help add to its prestige. Many stakeholders understand the lack of Learn By Doing experiences in GE to be a marker of that curriculum's lower significance. The university's serious commitment to Learn By Doing pedagogy dictates that (1) GE courses (not only courses in the major) are designed to incorporate these same methods, and (2) these efforts need to be supported by the colleges and university.
- ❖ Members of the GETF and program stakeholders believe the GE Program will be more engaging with broad implementation of high-impact educational practices in GE instruction. Many high-impact practices, when combined with well-designed reflections, have the potential to help students understand the value and relevance of GE in relation to a major course of study. (See GE PLO #4.)
- ❖ In response to GE Program Review, the external review team and the Cal Poly GE Governance Board recommended Cal Poly provide meaning-making opportunities (like high-impact educational experiences) for students.
- ❖ GE PLOs #2, #3, #5, and #6 emphasize learning related to written communication, sciences, technology, diversity, and global issues, which all relate in different ways to high-impact educational practices. In response to GE Program Review, the Cal Poly GEGB set as a priority continued efforts to integrate the previously approved GE PLOs.

- Limiting enrollments in courses that are writing intensive and/or focused on Learn By Doing potentially requires additional instructors and resources.
- ❖ Commitment to Learn By Doing pedagogies throughout the GE curriculum could disrupt a common approach where programs offer large-enrollment, introductory survey courses focused on lectures and multiple-choice examinations. Learn By Doing can and should be incorporated into these classrooms, but it will be challenging.
- ❖ NSSE states (citing Kuh 2008), "High-Impact Practices (HIPs) share several traits: They demand considerable time and effort, facilitate learning outside of the classroom, require meaningful interactions with faculty and students, encourage collaboration with diverse others, and provide frequent and substantive feedback. As a result, participation in these practices can be life-changing." (http://nsse.indiana.edu/html/high_impact_practices.cfm). Their first point here is of the utmost importance: implementation of high impact practices across the GE curriculum will require considerable time and effort.

Task Force Priority Ranking LOWER-DIVISION INSTRUCTION AND LEARNING RELATED Medium Low High TO GE MISSION, OBJECTIVES, STRUCTURE, VALUE, AND **EXPERIENCES** X GE Task Force Recommendation: Message and Outreach #1 of 4 Incorporate content and/or advising into foundational, lower-division GE courses to foster student learning related to mission, objectives, structure, value, and experiences. **Guiding Principles informing this recommendation:** 2 3 4 5

Program Development Options:

- ❖ Instructors in lower-division GE courses should be asked to devote some amount of class time to the topic of the GE Program itself, the role that their particular course plays in the program, and how these courses are meant to link together as a coherent 72-unit learning experience over four years.
- Provide instructors with guidance on GE messaging. Assist instructors in developing course syllabiand class discussions/assignments that focus on GE messaging.
- ❖ Members of the proposed GE Educational Objective Work Groups could help departments and instructors offering courses in the foundational lower-division GE courses to develop learning objectives (See **Recommendation I.1**), modules, materials, and assignments that will help students to better understand GE as a coherent program equal in importance to the major.
- The GE Program Learning Objectives (PLOs) should be listed in all GE course syllabi. In addition, the PLOs should be mapped to the course learning objectives.
- Formalize this requirement by including it as a new section on the GE course proposal form.

Rationale for this Recommendation:

- The centrality of the major in Cal Poly culture makes it necessary for instructors, advisors, department chairs/heads, and others to work to establish the importance of the GE curriculum.
- The GE curriculum will not succeed if we simply assume that students will by themselves figure out the significance of the program. As mentioned in **Recommendation II.2**, according to Jerry Gaff of AAC&U, "integration of knowledge is not likely to occur *unless* the faculty model it in the classroom [and] they help students to acquire the skills to do it on their own." This reinforcement in the classroom could help students to understand much better the importance of GE and liberal education in general at a comprehensive polytechnic university.
- ❖ It is important for first-year students to learn directly from their instructors about the importance of the GE curriculum, which constitutes about 40% of each of our degree programs. Devoting a small amount of time in lower-division courses would go a long way toward making this early impression on our students and countering the major-centric messages they may receive from others. Over time, hopefully GE could work with CTLT to create standard modules that could be used in different courses to help students gain an authentic understanding of their GE curriculum and coursework.
- ❖ In response to GE Program Review (in 2016), the review team recommended that Cal Poly identify ways to make the goals of GE more transparent to students. The team recommended a more comprehensive strategy than in place at the time and noted that transparency in GE (and other courses) can improve student learning. The review team also recommended strengthening connections between GE and the major.

Rationale for this Recommendation (continued):

- ❖ In response to GE Program Review (in 2016), the GEGB prioritized GE messaging as a key issue, moving forward. They recommended strengthening the role of GE advising and better articulating the value of GE to students. This work relates directly to GE PLO #4, which states that students should "Understand the value of a general education in relation to a major course of study."
- ❖ A brief and thoughtfully developed introduction to the Cal Poly GE Program would be a much better alternative to the current approach, where there is no substantive introduction/discussion and many students quickly accept GE as a series of mindless obstacles to "knock out" and "get over with." Improved program branding (See **Recommendation IV.3**) would help in this process as well.

- ❖ GE messages will need to be consistent across campus. This will require careful coordination and regular follow-up between instructors, advisors, staff in Academic Affairs, staff in Student Affairs, student leaders, and others.
- Some instructors may resent the loss of classroom time to ideas and themes seen as "outside" of disciplinary content.
- ❖ Instructors will see a slight increase in workload, at least initially, in developing their GE syllabi and when planning and grading discussions/assignments. This might be considered a burden for some instructors, but collaboration with departmental, GE, and CTLT colleagues could help mitigate this potential issue.

GE ADVISING TOOLS AND INCENTIVES

GE Task Force Recommendation: Message and Outreach #2 of 4

Task Force Priority Ranking		
Low	Medium	High
		X

Redesign advising tools (e.g., curriculum sheets, degree flowcharts, PolyProfile, dashboards, DPR, etc.) to illustrate and promote an integrative, meaningful, and connected GE curriculum.

Guiding Principles informing this recommendation: 1 2 3 4 5

Program Development Options:

- ❖ Department curriculum sheets and flowcharts can be designed in ways that better illustrate the centrality of the GE Program to each Cal Poly student's university studies, and the different relationships between GE and the major.
- ❖ PolyProfile, degree progress report (DPR), and other online advising tools can be re/designed to highlight GE achievements and provide more information about student progress through the GE curriculum, beyond just the units completed.
- ❖ Transcripts can be designed to recognize student accomplishments related to GE, such as completion of general requirements, certifications denoting completion of pathways, outstanding academic performance in the GE curriculum, etc.
- ❖ Provide students with the ability to develop a GE course plan in PolyPlanner.
- ❖ Once the new GE template begins to take shape, a work group consisting of advisors, staff from the Office of the Registrar, faculty, and students should be formed to discuss specific strategies for implementing new GE advising tools.

Rationale for this Recommendation:

- ❖ Program curriculum sheets and flowcharts are presented in ways that tend to marginalize the GE curriculum and the importance of these courses. Unintentional though this may be, this does become one more influential location where students learn to dismiss GE and its relation to their majors.
- PolyProfile has become an important tool in Cal Poly's advising discourse and system of academic progress; this makes it a logical place to emphasize students' progress toward GE requirements. A separate "GE Progress" chart could help students better understand this part of the curriculum.
- ❖ Several American universities are experimenting with more visually innovative transcripts that are more than lists of abbreviations and grade points. Instead, transcripts are being designed that do more to embed students' different kinds of competencies and emphasize other kinds of educational experiences, in order to maximize the value to students of their degrees. As Helen Chen (Stanford University) and Thomas Black (Johns Hopkins University) write, "The opacity of the official college transcript is another reminder of the more institution-centric history of higher education. With the shift to student-centricity comes a demand for new and more flexible approaches to communicating student achievements, knowledge and outcomes." ("Clear as Mud: Finding Ways to Improve Upon the College Transcript," *The EvoLLLution*, 17 April 2018, http://bit.ly/20Vdwnc). Also see: Jimmy Montchal, "Elon University's Experiential Transcript What the Future Looks Like," *Parchment*, 26 May 2016, http://bit.ly/2vY7euw.
- ❖ In response to GE Program Review (in 2016), the review team recommended that Cal Poly build connections between GE and majors and identify ways to make the goals of GE more transparent.
- ❖ In response to GE Program Review (in 2016), the GEGB prioritized GE messaging as a key issue. They recommended strengthening the role of GE advising and better managing the GE message through redesigned flow charts and other advising tools.

- The work required to support this recommendation would not be trivial. Additional resources would be needed to support University Advising, the Registrar's Office, and other programs during redesign efforts and subsequent implementation.
- ❖ Effective revision of these documents would require each academic department and program to rethink the importance of GE to their curriculum, and how their major or program builds on skills and competencies taught in GE courses. An approach to curricular mapping between major and GE can be found in: Nuria M. Cuevas, Alexei G. Matveev and Khadijah O. Miller, "Mapping General Education Outcomes in the Major: Intentionality and Transparency," *Peer Review* 12.1 (Winter 2010).

GE PROGRAM AND AREA NAMES

GE Task Force Recommendation: Message and Outreach #3 of 4

Task Force Priority Ranking		
Low	Medium	High
		X

Rename the Cal Poly "General Education" Program to better reflect its goals, objectives, and strengths, and have all campus materials refer to GE subject areas and subareas by their names (rather than letters and numbers).

Guiding Principles informing this recommendation: 1 2 3 4 5

- ❖ A new name should be chosen for "General Education" to better describe the significance of this core, interdisciplinary, connected, and specific 72-unit breadth learning experience.
- Renaming and "rebranding" efforts can only be addressed <u>after</u> the approval and implementation of structural and pedagogical changes and additions. (See **Sections I, II, and III** of these recommendations.) The redesigned program should inform the new program name and area/subarea titles. The GETF feels strongly that a renaming or rebranding of GE that did not include significant changes to the content of the program would be a mistake.
- Faculty, advisors and staff should be strongly encouraged to describe GE areas and subareas by their actual subject names, e.g. "Science and Mathematics" (instead of "Area B"), "American Institutions" (instead of "D1").
- ❖ All published materials (including the Cal Poly Catalog, PASS, degree progress report, flowcharts, curriculum sheets, etc.) should emphasize the full names of the GE areas and subareas and should eliminate (or limit) the "letter/number" shorthand.
- ❖ Cal Poly could consider the development of symbols and/or infographics to describe the GE program, areas, subareas, and pathways (see **Recommendation II.2**) in a visual manner.
- ❖ All GE stakeholders could be encouraged to participate in contests to rename the program or to develop meaningful symbols, images, and/or graphics.
- ❖ More background on the question of how to name a program of core university requirements can be found in the following article: Stephen H. Bowen, "Reality Check: What's in a Name? The Persistence of 'General Education," *Peer Review* 7.1 (Fall 2004), http://bit.ly/2L2lNCU.
- An example of a GE curriculum that is presented in a more conceptual and explanatory manner has been implemented at San Diego State University. Their GE curriculum and areas are outlined as follows:
 - Communications and Critical Thinking (9 semester units)
 - Foundations (28 units)
 - Natural Sciences and Quantitative Reasoning
 - Social and Behavioral Sciences
 - Humanities
 - American Institutions (3 units)
 - Explorations (9 units, upper-division)

Rationale for this Recommendation:

- Renaming the program provides Cal Poly with the opportunity to more clearly convey intentions, purpose, meaning, and distinction. Other colleges and universities have been successful in this regard, when addressing branding efforts related to general education.
- Few students have any idea of the logic behind the organization of our GE program, or even of the names of the GE areas. It is clear that this contributes to students' understandings of their GE curriculum as arcane, bureaucratic, unrelated to their major course of study, and one more requirement to "knock out." Knowledge of the areas that add up to completion of the GE program would help students to understand the ways that these areas and classes are meant to fit together. Faculty, advisors and staff can contribute to this understanding of GE by referring to more substantive ideas than merely "A2" or "C1."
- ❖ In response to the 2016 GE Program Review, the GEGB recommended that Cal Poly investigate GE branding opportunities (e.g., changing the program name) and consider new and/or improved ways of "managing the messaging" of the GE program.
- ❖ For some, the idea of "General Education" has unfortunately become associated with ideas of the humdrum, the irrelevant, the hindrance, and the superficial. "General" is not a compelling educational category. The term unfortunately obscures all of the powerful and specific ways our GE courses help students to see the world.
- ❖ As Bowen writes in "Reality Check," "general" is the "least informative" term used to describe core university requirements: "the term is vague and may be assumed by some to indicate a lack of intentionality. Others will make the association with the common use of 'general' to connote introductory-level material." On the other hand, he also writes that "it is the term most widely used in higher education [and] the most readily recognized."

- ❖ Printed and online information, forms, advising materials, etc. may be more difficult to format with full GE area and subarea names. In addition, it will take some resources and effort to make changes to these existing documents.
- Lliminating GE area letter and number designations entirely might make things confusing when communicating with prospective students, advising transfer students, and working with others outside of Cal Poly.
- Some may find it pretentious or onerous to refer to students' GE curricular requirements in this manner.

SELECTION OF GE LIAISONS AND AMBASSADORS ACROSS CAMPUS

Task Force Priority Ranking
Low Medium High
X

GE Task Force Recommendation: Message and Outreach #4 of 4

Select and mentor GE liaisons, ambassadors, advocates, or advisors (students, faculty, and staff) in each campus program, department, and college.

Guiding Principles informing this recommendation: 1 2 3 4 5

Program Development Options:

- ❖ Academic programs, departments, and colleges should all select colleagues to serve as liaisons to and advocates for the GE Program. Liaisons or advocates will help facilitate more effective GE communication across the university. They will serve as reliable sources of information on the philosophies behind and the structure of the GE Program.
- ❖ GE liaisons or advocates could be expected (or required) to participate and offer guidance during program- or department-level curricular/course review, development, assessment, and approval efforts related to GE. This group of connected GE advocates and stewards would be expected to facilitate effective communication between the GEGB and other campus organizations. This group would also encourage and help to facilitate interdisciplinary collaboration between programs and departments.
- ❖ GE liaisons or advocates could be expected to complete GE-related professional development workshops and attend periodic meetings led by the GEGB.
- ❖ Work as a GE liaison or advocate should be valued highly and considered seriously in the RPT process as service to the department, college, and university.
- ❖ Presumably, a liaison or advocate would be selected by each of the 60+ programs on campus.
- ❖ Other individuals in units that serve as a public face of the university, like Student Ambassadors (at the college and university level), WOW, Admissions, Student Affairs, University Advising, University Communications, and Cal Poly Athletics, should be included in this work.
- ❖ Each academic program and department should be actively encouraged to participate in GE at this level.

Rationale for this Recommendation:

- ❖ Many faculty colleagues, including those who teach GE courses, do not have a close working knowledge of the GE Program, including its requirements, foundational ideas, responsibilities, and constraints. As a result, the GETF found that many stakeholders around campus held incorrect understandings of the role of the GEGB, the purpose of GE requirements and learning objectives, the relationship between CSU and Cal Poly GE requirements, and the program's guiding principles. Including every department and program in the GE leadership structure in this way could go a long way toward getting past common and harmful mischaracterizations and misunderstandings, and also toward making sure that courses in the GE Program meet program and area learning objectives.
- ❖ If the GE Program is to be one that is valued by all students, faculty and staff on campus, then real campuswide participation should be encouraged in the programmatic nature of GE (that is, more than a department simply teaching courses in GE). This hopefully would lead to more programs and departments developing and offering GE courses.

Rationale for this Recommendation (continued):

- ❖ GE governance and committee models and structures at other universities typically include only college-level representation. A shift toward program- and department-level representation and advocacy would represent a unique innovation for a university the size of Cal Poly. The concept is worthy of exploration and could distinguish the university as a leader in GE collaboration.
- ❖ In response to GE Program Review (in 2016), the review team recommended "sponsorship of cross-campus and cross-departmental forums in which faculty including both those teaching GE courses and those teaching only or predominantly major courses can discuss the broader learning outcomes for all students and ways in which different parts of the curriculum contribute to advancing these outcomes."
- ❖ In response to GE Program Review (in 2016), the GEGB prioritized that Cal Poly investigate opportunities to educate the campus regarding GE and strengthen the role of advising.
- ❖ Having a campuswide group of connected GE advocates and stewards will help to encourage and facilitate interdisciplinary collaboration between programs and departments. Interdisciplinary learning opportunities in GE are discussed in **Recommendation II.1**.
- ❖ Work associated with the GE Program should provide considerable value to the individual's department. There should be no misunderstanding that this is just "one more committee" to be filled.

Potential Challenges and Concerns during Development and Implementation:

- ❖ Coordination of this large group of individuals will take time and effort. As a result, potential impacts to GEGB workload/resources will need to be carefully evaluated. This mission and charge of this group will need to be clearly developed and defined upfront so that the members use their time efficiently and provide value to students, faulty, and staff.
- ❖ It will take time and resources to recruit and develop advocates, ambassadors, liaisons, etc.

EXPANSION OF GE PROGRAM RESPONSIBILITIES GE Task Force Recommendation: Program Management #1 of 1

Task Force Priority Ranking			
Low	Medium	High	
		X	

Provide the GE Program with the resources necessary to support a full-time director/chair, a staff member, and office space, thus allowing for the appropriate expansion of administrative responsibilities under the GE Program (e.g., redesign of GE subject areas, development and management of pilot initiatives, advocacy efforts, course renewal, enrollment management, scheduling, space and learning environment issues, innovative and sustainable assessment, etc.).

Guiding Principles informing this recommendation:	1	2	3	4	5
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Program Development Options:

- ❖ The university should devote more funding and resources to the GE Program to support the increased responsibilities and new initiatives recommended by program review and many campus GE stakeholders.
- ❖ The GE administrative structure should be expanded to include "area" committees or work groups led by Chairs who receive some amount of assigned time. These committees will be crucial to carrying out the expanded responsibilities recommended by the GETF and much of the work proposed in **Sections I, II, III, and IV** of these recommendations.
- The program should sponsor annual awards to recognize outstanding GE-related achievements by students, faculty, and staff.

Rationale for this Recommendation:

- ❖ More funding would allow the expansion of the administrative responsibilities of the GE Program, including the following tasks and initiatives: introduction of a GE course renewal process, a GE role in enrollment management and scheduling, further development of innovative and sustainable program assessment, the development and management of pilot initiatives, ongoing work to develop appropriate policies for online and hybrid GE courses, advocacy efforts with academic and other university units, and management of the new structures that will be created within GE.
- ❖ The present GE administrative arrangement is in part a result of emergency measures taken during California's 2008-12 budget crisis. Other emergency measures from that historical moment, like faculty and staff furloughs, were abandoned long ago. However, the GE Program has never recovered from this measure.
- ❖ The previous GE administrative arrangement in effect from the late 1990s through the 2000s included a GE Director and a GE Area Chair and Committee for each of three combined areas: A/C, B/F and D/E. This structure allowed for more convenient, direct, and effective engagement between the GE Program, colleges, departments, and programs.
- ❖ In response to GE Program Review (in 2016), the review team and the Cal Poly GE Governance Board (GEGB) recommended the development and implementation of a GE Course Renewal process as well as continued integration of the previously approved GE Program Learning Objectives. The GETF supports this recommendation. In addition, the review team encouraged consideration of more ambitious goals related to assessment. Resources currently available to the GEGB are not sufficient to support sustained initiatives and innovation in these areas. The success of both of these items likely depends on an expansion of the administrative responsibilities of the GE Program.

Rationale for this Recommendation (continued):

❖ The Cal Poly GE Program serves over 20,000 students, and GE courses represent about 40% of every student's degree requirements. Therefore, a significant number of Cal Poly students and faculty are involved in the GE Program each quarter. For example, during Spring 2018, Cal Poly offered 972 sections of GE courses with a total GE enrollment of 33,821 students. The resources currently allocated to GE are insufficient for a program of this scope and importance, especially given the redesign efforts that will take place over the next three to five years.

Potential Challenges and Concerns during Development and Implementation:

- ❖ There is limited space available on campus to accommodate a new office for Cal Poly General Education.
- Additional funds will need to be found or reallocated to support increased staff and faculty workload associated with this recommendation.
- The proposed organizational structure depends on the ability to recruit faculty committee members who are committed to the GE tasks and responsibilities outlined herein.
- ❖ Policies and procedures for overseeing and evaluating the expanded GE office and its staff would need to be developed.

APPENDIX B – GENERAL EDUCATION PATHWAYS SUPPLEMENT: SAMPLE PATHWAYS

General Education Pathways Supplement: Sample Pathways

Presented in this Pathway Supplement are five <u>DRAFT</u> ideas for how pathways might be incorporated into GE at Cal Poly. The pathway subjects are: (1) Sustainability; (2) Migration and Migrants; (3) East Asia; (4) Food, Culture, Politics; and (5) Global Studies.

1. The following is an extended example of a four-course (16 unit) *Sustainability* **GE Pathway-Concentration**, as proposed by members of the Academic Senate Sustainability Committee.

The Sustainability GE Pathway consists of 16 quarter units of identified sustainability-focused or -related courses. Courses eligible for the sustainability pathway must be courses listed in the Cal Poly Sustainability Catalogue (SUSCAT), all of which have been approved for inclusion in SUSCAT the Academic Senate Sustainability Committee (ASSC). We suggest that courses not listed in SUSCAT that have sufficient sustainability-focused or -related content should be allowed by student and instructor petition. Ideally, and eventually, all courses that complete the sustainability pathway will be listed as SUSCAT courses.

Cal Poly defines sustainability as "the ability of natural and social systems to survive and thrive together to meet current and future needs." More broadly, sustainability thinking is understood to consider social, economic and environmental perspectives when analyzing and addressing complex issues. The proposed Sustainability GE Pathway is designed to provide students with a deeper understanding of challenges and possibilities related to sustainability, including (but not limited to) the impact of economic systems on social justice and environmental degradation, the efforts and relationships among environmental justice, cultural preservation, human health and well-being, and diversity and inclusion.

Couched within Cal Poly's rich history of "learn by doing," the Sustainability GE Pathway addresses Cal Poly's sustainability learning objectives with questions such as:

- How do we define sustainability?
- How do natural, economic, and social systems interact to enable or prevent sustainability?
- What local, national, and global sustainability challenges do we face, and how can an interdisciplinary approach help address these challenges?
- How can sustainability principles affect the development of personal and professional values?

Students who complete the sustainability pathway will be prepared to critically and practically address the need for innovations that improve the human experience while safeguarding our diverse natural and cultural resources.

The list below specifies the courses eligible for the Sustainability GE Pathway by area. (NOTE: GE Area A: Communications courses are foundational and not included in this pathway; however, faculty could be teaching these courses with sustainability related content.). In order to complete the pathway, students would choose one class from three of the four following areas, plus one upper-division GE course from the following:

Area B: Science and Mathematics

ASCI 112 Principles of Animal Science (B2)

BIO 227 Wildlife conservation Biology (B2)

BIO 112 Environmental Biology & Conservation (B5)

BOT 311 Plants, People, & Civilization (B5, upper-division)

LA 220 Landscape Ecology: Concepts, Issues, and Interrelationships (B5)

PSC 201 Physical Oceanography (B5)

SS 121 Introductory Soil Science (B5)

AEPS 315 Organic Crop Production (cross-listed as AEPS/AG 315) (B7)

AG 330 Cal Poly Land: Nature, Technology, & Society (cross-listed as AG/ISLA/UNIV 330) (B7)

AG 350 The Global Environment (cross-listed as AG/EDES/ENGR/ISLA/SCM/UNIV 350) (B7)

AG 360 Holistic Management (cross-listed as AG/ASCI 360) (B7)

BRAE 348 Energy for a Sustainable Society (B7)

CM 317 Sustainability & the Built Environment (B7)

HIST 359 Living in a Material World (cross-listed as HIST/MATE 359) (B7)

HNRS 392 Appropriate Technology for the World's People: Design (cross-listed as HNRS/PSC/UNIV 392) (B7)

ITP 330 Packaging Fundamentals (B7)

ITP 341 Packaging Polymers & Processing (B7)

ME 320 Consumer Energy Guide (B7)

MSCI 307 World Aquaculture: Applications, Methodologies, & Trends (B7)

NR 312 Technology of Wildland Fire Management (B7)

POLS 333 World Food Systems (cross-listed as POLS/UNIV 333) (B7)

Area C: Arts and Humanities

PHIL 340 Environmental Ethics (upper-division)

Area D: Society and the Individual

GEOG 150 Introduction to Cultural Geography (lower-division)

ANT 345 Human Behavioral Ecology (upper-division)

GEOG 301 Geography of Resource Utilization (upper-division)

HNRS 391 Appropriate Technology for the World's People: Development (cross-listed as HNRS/PSC/UNIV 391) (upper-division)

NR 323 Human Dimensions in Natural Resources Management (upper-division)

NR 324 Social Dimensions of Sustainable Food & Fiber Systems (upper-division)

PSY 311 Environmental Psychology (upper-division)

Area E: Lifelong Learning and Self-Development

FSN 250 Food & Nutrition: Customs & Culture

Listed below are three sample outlines with specific courses for how students in different majors might complete the Sustainability GE Pathway.

Sample pathway a CIVIL ENGINEERING major might choose:

Area B: LA 220 Landscape Ecology: Concepts, Issues, & Interrelationships

Area C: PHIL 340 Environmental Ethics

Area D: GEOG 301 Geography of Resource Utilization or NR 323 Human Dimensions in Natural Resources Management

SUSCAT course in the CE major: CE 527 Sustainable Mobility

Sample pathway a COMMUNICATION STUDIES major might choose:

Area B: BIO 112 Environmental Biology and Conservation or BOT 311 Plants, People & Civilization Area C: PHIL 340 Environmental Ethics

Area D: GEOG 150 Introduction to Cultural Geography or NR 324 Social Dimensions of Sustainable Food & Fiber Systems

SUSCAT course in the COMS major: COMS 390 Environmental Rhetoric, <u>or</u> POLS 333 World Food Systems (GE Area B7) <u>or</u> UNIV 350 The Global Environment (GE B7) <u>or</u> COMS 316 Intercultural Communication (GE D upper-division)

Sample pathway a POLITICAL SCIENCE major might choose:

Area B: BIO 227 Wildlife Conservation Biology (B2) or BOT 311 Plants, People, and Civilization (B5); POLS 333 World Food Systems (B7) or BRAE 348 Energy for a Sustainable Society (B7) or EDES 350 The Global Environment (B7) or PSC 320 Energy Society & the Environment (B7) Area C: PHIL 340 Environmental Ethics (upper-division)

Area D: UNIV 391 Appropriate Technology for the World's People: Development or NR 323 Human Dimensions in Natural Resources Management or GEOG 301 Geography of Resource Utilization (upper-division)

2. The following is a possible five-course (20 unit) *Migration and Migrants* **GE Pathway-Concentration**:

Area C: Arts and Humanities, upper-division (select one)

DANC 321 Cultural Influence on Dance in America

ENGL 346 Ethnic American Literature

ES 300 Chicano/a Non-fiction Literature

Area D: Society and the Individual, lower-division (select two)

ES 241 Survey of Indigenous Studies

ES 242 Survey of Africana Studies

ES 243 Survey of Latino/a Studies

ES 244 Survey of Asian American Studies

Area D: Society and the Individual, upper-division (select one)

ECON 303 Economics of Poverty, Discrimination, and Immigration

HIST 308 The Trans-Atlantic Slave Trade

Area E: Lifelong Understanding and Self-Development (select one)

FSN 250 Food and Nutrition: Customs and Culture KINE 255 Personal Health: A Multicultural Perspective

3. The following is a possible three-course (12 unit) *East Asia* GE Pathway-Connection. This pathway would allow students who are not able to take the Chinese or Japanese language classes required for the Asian Studies minor to take linked lower- and upper-division GE courses that build on each other in meaningful ways.

Area C: Arts and Humanities, upper-division (select one)

PHIL 362 East Asian Philosophy RELS 307 Buddhism

Area D: Society and the Individual, lower-division

HIST 221 World History, Beginnings to 1000

Area D: Society and the Individual, upper-division (select one)

HIST 310 East Asian Culture/Civilization HIST 319 South/Southeast Asia

4. The following is a possible four-course (16 unit) *Food, Culture, Politics* **GE Pathway-Concentration**:

Area B: Science and Mathematics, upper-division (select one)

AEPS 315 Organic Crop Production AEPS/BOT 329 Plants, Food, and Biotechnology BOT 311 Plants, People, and Civilization ESRC 335 Soil, Water, and Civilization POLS 333 World Food Systems

Area C: Arts and Humanities, upper-division

PHIL 340 Environmental Ethics

Area D: Society and the Individual, upper-division (select one)

GEOG 301 Geography of Resource Utilization NR 324 Social Dimensions of Sustainable Food and Fiber Systems

Area E: Lifelong Understanding and Self-Development

FSN 250 Food and Nutrition: Customs and Culture

5. The following is a possible five-course (20 unit) *Global Studies* **GE Pathway-Concentration**, as proposed by members of the International Advisory Committee.

Drawing from Cal Poly's vision for internationalization, a Global Studies GE Pathway would provide foundational experiential learning, teaching, service and scholarship opportunities – with a "global theme" – both at home and abroad. Its goal is to best equip our graduates to solve complex global challenges in a sustainable, ethical and inclusive manner.

A Global Studies GE Pathway could encourage students, faculty and staff to critically evaluate themselves, their cultures, values and place in the world. It would support the International Advisory Committee's efforts to produce Cal Poly graduates who are global systems thinkers and doers and ultimately positive forces in the world.

Students participating in the Global Studies GE Pathway would (1) choose five courses with a global outlook from the six GE areas listed below, and (2) participate for at least one quarter in one of the more than 400 sponsored programs in 75 countries available via the Cal Poly International Center (https://abroad.calpoly.edu).

Area B: Science and Mathematics, upper-division (select one)

BOT 311 Plants, People and Civilization (B5)
AG/EDES/ENGR/GEOG/ISLA/SCM 350 The Global Environment (B7)

Area C: Arts and Humanities, lower-division (select one)

ENGL 230 Masterworks of British Literature through the Eighteenth Century

GER 201 Intermediate German

FR 201 Elementary French I

JPNS 201 Elementary Japanese I

ITAL 201 Elementary Italian I

Area C: Arts and Humanities, upper-division (select one)

ART 311 Art History - Nineteenth Century Art

ART 318 Asian Art Topics: National, Religious, and Intellectual Movements

WLC 310 Humanities in World Cultures

WLC 312 Humanities in Chicano/a Culture

MUS 324 Music and Society

Area D: Society and the Individual, lower-division (select one)

ANT 201 Cultural Anthropology

ES 242 Survey of Africana Studies

ES 243 Survey of Latino/a Studies

ES 244 Survey of Asian American Studies

GEOG 150 Human Geography

HIST 210 World History I

HIST 214 Political Economy of Latin America and the Middle East

HIST 223 World History, 1800 - Present

Area D: Society and the Individual, upper-division (select one)

BUS 311 Managing Technology in the International Legal Environment CRP 334 Cities in a Global World

ECON 303 Economics of Poverty, Discrimination and Immigration

ECON 304 Comparative Economic Systems

GEOG 308 Global Geography

GEOG 370 Geography of Latin America

POLS 325 Global Political Issues

APPENDIX C – GETF MEMBERSHIP ROSTER

Name	Representative	Department, Program, or Unit	
Gregg Fiegel	Co-Chair	Civil Engineering	
Bruno Giberti	Administrative	Academic Programs & Planning	
Brenda Helmbrecht	GE Governance Board	English	
Denise Isom	Administrative	University Diversity & Inclusion and Ethnic Studies	
Beena Khurana	OCOB	Business Administration and MBA Programs	
Laura Lodolo	Student, CSM	Biological Sciences	
Josh Machamer	CLA	Theatre & Dance	
Margot McDonald	CAED	Architecture	
Beth Merritt Miller	Administrative	University Advising	
Sarah Morningred	Student, CLA	English	
Andrew Morris	Co-Chair	History	
Dan Peterson	CAFES	Animal Science	
Peter Schuster	CENG	Mechanical Engineering	
Cem Sunata	Administrative	University Registrar	
Stamatis Vokos	CSM	Physics	
Haley Warner	Student, CAFES	Agricultural Communication	
Melinda Weaver	Administrative Support	Academic Programs & Planning	
Katie Tool (ret.)	Administrative Support	Academic Programs & Planning	

APPENDIX D – SUMMARY OF GETF OUTREACH WORK, 2017-19

Academic Senate Executive Committee: 25 April 2017, presentation

Associate Deans: 26 April 2017, presentation

ASI Special Board of Directors Workshop: 3 May 2017, presentation

International Center Director Cari Moore: 8 May 2017, meeting

Mustang Success Center: 12 May 2017, presentation CLA College Council: 16 May 2017, presentation CAFES Management: 16 May 2017, presentation

CAFES Ag Student Ambassadors: 18 May 2017, presentation

Academic Senate incoming Chair Dustin Stegner: 18 May 2017, meeting

CENG Curriculum Committee: 19 May 2017, presentation

COSAM College Council: 23 May 2017, presentation

CAED Department Chairs: 23 May 2017, presentation

CENG Department Chairs: 23 May 2017, presentation

Inter Housing Council: 25 May 2017, presentation

Academic Senate Curriculum Committee: 25 May 2017, presentation

OCOB Peer Advisors: 30 May 2017, presentation English Department: 30 May 2017, presentation CAFES Student Council: 30 May 2017, presentation

EOP Staff, including CAS and SSS: 31 May 2017, presentation

Engineering Student Council: 31 May 2017, presentation

OCOB Undergraduate Programs Committee: 1 June 2017, presentation

Philosophy Department: 1 June 2017, presentation

COSAM Curriculum Committee: 5 June 2017, presentation

Kennedy Library Leadership and Faculty: 7 June 2017, presentation

CAED Student Council: 7 June 2017, presentation GE Governance Board: 8 June 2017, presentation OCOB Area Chairs: 13 June 2017, presentation

Center for Teaching, Learning & Technology: 7 September 2017, meeting

CLA Student Diversity Council: 24 October 2017, meeting

University Writing & Rhetoric Center: 30 October 2017, meeting

CLA Faculty Diversity Council: 22 January 2018, meeting

Academic Senate: 6 February 2018, presentation

Academic Senate Sustainability Committee: 13 February 2018, meeting ASI Special Board of Directors Workshop: 7 May 2018, presentation

Mustang Success Center: 11 May 2018, meeting GE Governance Board: 15 May 2018, meeting

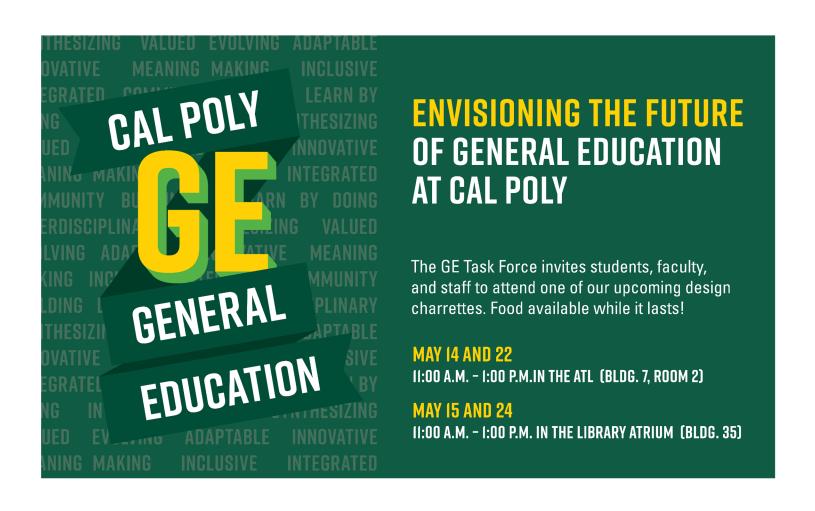
APPENDIX E – DATABASE OF STAKEHOLDER OUTREACH AND COMMENTS

Available online and by request

APPENDIX F – GE DESIGN CHARRETTE POS	STER COMPILATION

GE Task Force Poster Presentation: DRAFT Recommendations

Design Charrettes



Spring 2018

GENERAL EDUCATION TASK FORCE AND CHARGE

In February of 2017, the Provost formed the General Education (GE) Task Force in response to GE Program Review and the review team's conclusions and recommendations. The Task Force includes students, faculty, and staff members representing all six of Cal Poly's colleges as well as the GE Governance Board, the Office of University Diversity and Inclusion, University Advising, University Registrar, and Academic Programs and Planning. The Provost charged the Task Force with recommending a new vision for breadth education at Cal Poly. Work by the Task Force will continue through the end of this academic year. At that time, the Task Force will prepare a draft report summarizing recommendations and an action plan. This report will be presented to the Provost and Academic Senate during Fall 2018.

A Task Force membership roster is provided below. Please feel free to contact any of the members with feedback or questions.

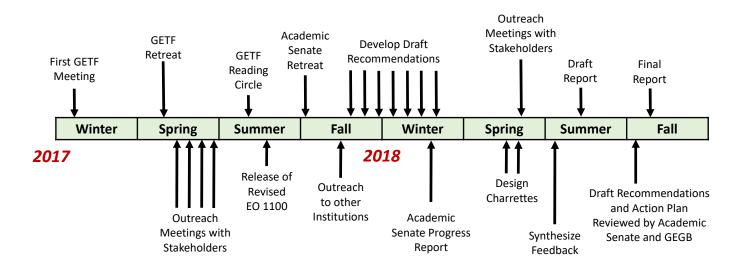
Name	Representative	Department, Program, or Unit	
Gregg Fiegel	Co-Chair	Civil Engineering and Honors Program	
Bruno Giberti	Administrative	Academic Programs & Planning	
Brenda Helmbrecht	GE Governance Board	English	
Denise Isom	Administrative	University Diversity & Inclusion and Ethnic Studies	
Beena Khurana	ОСОВ	Business Administration and MBA Programs	
Laura Lodolo	Student, CSM	Biological Sciences	
Josh Machamer	CLA	Theatre & Dance	
Margo McDonald	CAED	Architecture	
Beth Merritt Miller	Administrative	University Advising	
Sarah Morningred	Student, CLA	English	
Andrew Morris	Co-Chair	History	
Dan Peterson	CAFES	Animal Science	
Peter Schuster	CENG	Mechanical Engineering	
Cem Sunata	Administrative	University Registrar	
Stamatis Vokos	CSM	Physics	
Haley Warner	Student, CAFES	Agricultural Communication	
Melinda Weaver	Administrative Support	Academic Programs & Planning	
Katie Tool (ret.)	Administrative Support	Academic Programs & Planning	

TASK FORCE WORK AND ACTIVITIES

What has the GE Task Force done in preparing these draft recommendations?

- ☐ Reviewed the GE Self-Study Report (2015)
- ☐ Reviewed the GE Program Review Report (2016)
- ☐ Met with Dozens of Groups of Cal Poly Students, Faculty, Advisors, and Staff
- ☐ Reviewed CSU GE Policies and Constraints (EO 1100)
- ☐ Reviewed Revised CSU GE Policy (EO 1100-R)
- ☐ Held a GE Task Force Half-Day Retreat
- □ Held more than Two Dozen Task Force Meetings and Discussions
- ☐ Researched other Institutions and GE Best Practices
- ☐ Conducted a Summer GE Reading Circle
- ☐ Participated during AAC&U National Conference and Webinars on GE Design
- ☐ Consulted with GE Leaders at Several Peer Institutions
- □ Solicited Feedback during the 2017 Academic Senate Fall Retreat on GE
- Consulted with the Academic Senate Chair, GEGB Chair, and Academic Programs and Planning

TIMELINE



GUIDING PRINCIPLES

The Task Force developed a set of guiding principles based on internal discussions, discussions with the General Education (GE) Governance Board, conversations with stakeholders, research into current best practices, and recommendations from GE Program Review. The following principles helped guide Task Force deliberations and the development of program recommendations. The Task Force shared these principles in a Progress Report to the Academic Senate on February 6, 2018.

At Cal Poly, we seek a GE Program that:

- Provides a structure that enables, encourages, and strengthens meaning making.
- Strives to make its structure and requirements clear to all stakeholders.
- Advances the university mission by emphasizing values inherent in diversity and inclusivity.
- Builds upon our unique strengths as a comprehensive polytechnic institution and distinguishes itself through innovation, Learn By Doing, and collaboration.
- Evolves, adapts, and improves through the use of well-defined educational objectives, efficient assessment, and evidence-based decision-making.

DRAFT RECOMMENDATIONS

The Task Force developed its GE vision and a set of **DRAFT** recommendations to share with the campus community this spring. In support of its work, the Task Force is drawing on ideas and feedback collected during ongoing discussions with program stakeholders. In addition, the group is relying on a set of guiding principles, its own deliberations and discussions, research into best practices, conversations with peer institutions, and feedback collected during program review. The draft recommendations are as follows.

I. Curriculum Structure

- 1. Reevaluate and redesign the GE subject area educational objectives.
- 2. Require learning related to diversity and inclusion in all GE subject areas.
- 3. Establish upper-division GE subject area requirements that are the same for all students.

II. Pathways and Integration

- 1. Create GE interdisciplinary cohort experiences (e.g., a first-year experience, course pairs or triads across different subject areas, lower- and upper-division course pairs, or others) to address contemporary issues and real-world problems at the lower- and upper-division levels.
- 2. Create combinations of 2-7 linked GE courses in different subject areas to provide students with opportunities to make more coherent and meaningful connections, and to provide students with opportunities to complete formal pathways and/or minors.

III. Pedagogy and Course Design

- 1. Integrate interdisciplinary learning opportunities and experiences into GE.
- 2. Champion and support the broad application of Learn By Doing pedagogies and high-impact learning practices in GE.

IV. Message and Outreach

- 1. Incorporate content and/or advising into foundational, lower-division GE courses to foster student learning related to GE mission, objectives, structure, value, and experiences.
- 2. Redesign advising tools (e.g., curriculum sheets, degree flowcharts, PolyProfile, dashboards, DPR, etc.) to illustrate and promote an integrative, meaningful, and connected GE curriculum.
- 3. Rename the Cal Poly "General Education" Program to better reflect its goals, objectives, and strengths, and have all campus materials refer to GE subject areas and subareas by their names (rather than letters and numbers).
- 4. Select and mentor GE liaisons, ambassadors, advocates, or advisors (students, faculty, and staff) in each campus program, department, and college.

V. Program Management and Assessment

1. Provide the GE Program with the resources necessary to support a full-time director/chair, a staff member, and office space, thus allowing for the appropriate expansion of administrative responsibilities under the GE Program (e.g., redesign of GE subject areas, development and management of pilot initiatives, advocacy efforts, course renewal, enrollment management, scheduling, space and learning environment issues, innovative and sustainable assessment, etc.).

REEVALUATE AND REDESIGN THE GE SUBJECT AREA EDUCATIONAL OBJECTIVES.

(Curriculum Structure, DRAFT Recommendation I.1)

ESTABLISH UPPER-DIVISION GE SUBJECT AREA REQUIREMENTS THAT ARE THE SAME FOR ALL STUDENTS.

(Curriculum Structure, DRAFT Recommendation I.3)

LIKE IT?

Stick a dot here or next to any ideas you support

Design Ideas and Opportunities

- New educational objectives and criteria for each GE area and subarea, designed by new GE Area Committees and compatible with the revised CSU Executive Order 1100.
- > Support ongoing work by GEGB: Redesigning educational objectives in the new GE Subarea B7 (Technology, formerly GE Area F) and the new GE Area E (Lifelong Learning and Self-Development, formerly GE Area D4).
- ➤ Do existing AP exam policies fit with our GE Program Learning Objectives and new structure? Reevaluate! (Permitted under CSU EO 1036, July 2008)
- High-impact practices and opportunities for meaning making within the redesigned subject areas and educational objectives:

Area A – First-year or cohort experiences and advising initiatives?

Area C – Additional opportunities for course credit in Languages Other than English?

Area D – All students meeting the upper-division GE "capstone" requirements?

Area E – Course modules on student success: major/GE integration, GE themes and approaches, links between GE and career readiness?

- Goal of having all Cal Poly students meet the upperdivision requirements for GE Areas B, C, and D, as stipulated in CSU EO 1100, and without increasing GE requirements for any program.
- Consistent upper-division GE requirements for all transfer students.

Who can teach us?

Principles:

- Our academic departments and colleges
- Our instructors who teach in, and who wish to teach in, GE
- Our other campus stakeholders
- > SDSU making a similar transition

OTHER?

Implementation Challenges?

THINGS TO CONSIDER

RESOURCE INTENSIVE!

Are we willing to commit new resources to this challenge?

\$

Your Hopes...

Your Concerns...

Your Ideas...

I. CURRICULUM STRUCTURE

Efforts to reevaluate and redesign the GE subject area educational objectives and the Cal Poly GE upper-division requirements will coincide with significant structural changes being required by CSU policies under EO 1100-R, with some taking effect as early as Fall 2019.



Cal Poly's Existing GE Template

GE Areas and Descriptions		CLA, LAES, LS	CAED, CAFES, CSM, OCOB	CENG
Area	Description	Qtr. Units	Qtr. Units	Qtr. Unit
A1	Expository Writing	4	4	4
A2	Oral Communication	4	4	4
А3	Reasoning, Argumentation, and Writing	4	4	4
	CP Subtotal:	12	12	12
B1	Mathematics and Statistics	8	8	8
B2	Life Science	4	4	4
B3	Physical Science	4	4	4
B4	Life or Physical Science Lab	·	ed with B2 or B4	•
B5	Science and Math Elective	4		
B6	Upper Division Elective			4
	Designated			8
	CP Subtotal:	20	16	28
C1	Literature	4	4	4
C2	Philosophy	4	4	4
C3	Fine and Performing Arts	4	4	4
C4	Upper Division Elective	4	4	4
C5	Additional Elective		4	
	CP Subtotal:	16	20	16
D1	The American Experience	4	4	4
D2	Political Economy	4	4	4
D3	Comparative Social Institutions	4	4	4
D4	Self Development ¹	4	4	4
D5	Upper Division Elective	4	4	
	CP Subtotal:	20	20	16
F	Technology ²	4	4	0
	CP Subtotal:	4	4	0
	TOTAL:	72	72	72

2 - Cal Poly Area F is being migrated to Area B under new subgrea B7

Changes per CSU (Clarified April 2018)

Executive Order 1100 (Revised August 2017)

INNOVATION OPPORTUNITY! With resources and more space to create, what can you do?!?!

Cal Poly's Potential GE Template

English Language Communication (12 units)

Oral Communication (4) Written Communication (4) Reasoning, Argumentation, Writing (4)

Scientific Inquiry and Mathematics (20-24)

Mathematics and Statistics (8-12) Life Science (4) Physical Science (4) Life or Physical Science Lab Upper-Division (4)

Arts and Humanities (16-20)

Arts, Cinema, Dance, Music, Theatre (4/8) Literature, Philosophy, Languages Other than English (4/8) Upper-Division (4)

Society and the Individual (16)

American Institutions (4) Lower-Division (8) Upper-Division (4)

Lifelong Learning and Self-Development (4)

Your Ideas...

Your Concerns...

Your Hopes...

This transition represents an important area of focus for the Task Force, given feedback from stakeholders and the desire to provide space in the GE curriculum for other recommendations.

REQUIRE LEARNING RELATED TO DIVERSITY AND INCLUSION IN ALL GE SUBJECT AREAS.

(Curriculum Structure, DRAFT Recommendation I.2)

LIKE IT?
Stick a dot here or next to any ideas you support

Design Ideas and Opportunities

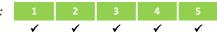
- Address Cal Poly's Diversity Learning Objectives (DLOs, see box on right) during the evaluation and redesign of educational objectives for <u>each</u> GE subject area.
- What values relating to diversity and inclusion are central to a Cal Poly education? And, how can we integrate these ideas most effectively into GE?
- Promote the development of interdisciplinary GE pathways and minors related to diversity, inclusion, social justice, sustainability, and other crucial topics.
- ➤ Support ongoing work by the USCP Review Committee, GEGB, and Academic Senate Curriculum Committee to **review**, **evaluate**, **and renew** existing courses with a USCP designation.
- Professional Development: Mentor instructors on pedagogical approaches that promote inclusiveness and equity in the classroom.

Who can teach and work with us?

- > Office of University Diversity and Inclusion
- Student and faculty diversity committees
- > Student cultural clubs and organizations
- Center for Teaching, Learning, and Technology & TIDE (Teaching Inclusion and Diversity Everywhere)
- Faculty 'graduates' of CTLT workshops (IDEA!, TIDE
- Other institutions

OTHER?

ESSENTIAL RECOMMENDATION! General Education at Cal Poly must lead on this issue. Principles:



Learning Across the GE Curriculum

Cal Poly's Diversity Learning Objectives (revised in 2017) state that all graduates should...

- Demonstrate an understanding of relationships between diversity, inequality, and social, economic, and political power both in the United States and globally.
- Demonstrate an understanding of contributions made by individuals from diverse and/or underrepresented groups to our local, national, and global communities.
- 3. Critically examine their own attitudes about diverse and/or underrepresented groups.
- 4. Consider perspectives of diverse groups to inform reasonable decisions.
- 5. Function as members of society and as professionals with people who have ideas, beliefs, attitudes, and behaviors that are different from their own.

Learn from examples of how this has been done in the past within all GE areas

SHARE YOUR IDEAS

Your Hopes...

Your Concerns...

Your Ideas...

CREATE GE INTERDISCIPLINARY COHORT EXPERIENCES TO ADDRESS CONTEMPORARY ISSUES AND REAL-WORLD PROBLEMS AT THE LOWER- AND UPPER-DIVISION LEVELS.

(Pathways and Integration, DRAFT Recommendation II.1)

LIKE IT?

Stick a dot here or next to any ideas you support

Design Ideas and Opportunities

- Create two- and three-course first-year themed experiences across GE subject areas.
- Create linked course pairs or triads spanning different GE subject areas and/or the lower- and upper-division levels.
- Leverage the existing system of full-year block scheduling to enroll first-year students in linked GE experiences!
- Foster an interdisciplinary and inclusive learning environment where students from a wide range of disciplines collaborate and work together.
- Initiate pilot programs supported by incentives and instructor professional development opportunities to develop, implement, and assess linked course experiences in GE.

Who can teach us?

- Our stakeholders
- Lessons learned from first-year programs (Honors, SUSTAIN, Q+)
- University of Maryland "I-Series", UCLA first-year GE program
- Block registration and scheduling of first-year students
- Struggling first-year programs at other institutions

Principles:









Possible Experiences

Sugar: Brain and Economic Addictions



Drought in California – the New Normal?

Food Insecurity

The Science of Love

Colonialism, Labor and Immigration

The Marvel Universe: Black Panther, Identity, and Afro Indigenous Futurism

Lower-Division Course Combinations from Areas A, B, C, D, and/or E.

SHARE YOUR IDEAS

OTHER?

INNOVATION OPPORTUNITY!
With resources and more space to create, what can you do?!?!

Your Hopes...

Your Concerns...

Your Ideas...

CREATE COMBINATIONS OF 2-7 LINKED GE COURSES IN DIFFERENT SUBJECT AREAS TO PROVIDE STUDENTS WITH OPPORTUNITIES TO MAKE MORE COHERENT AND MEANINGFUL CONNECTIONS, AND TO PROVIDE STUDENTS WITH OPPORTUNITIES TO COMPLETE FORMAL PATHWAYS AND/OR MINORS.

LIKE IT?

Stick a dot here or next to any ideas you support

(Pathways and Integration, DRAFT Recommendation II.2)

Design Ideas and Opportunities

- Create alternative GE pathway configurations: 2- to 3-course CONNECTIONS, 4- to 5-course CONCENTRATIONS, and 6- to 7course MINOR PROGRAMS.
- > Create upper-division pathways for transfer students.
- Recognize completion of pathways and/or minors on student transcripts.
- > Incentivize and enable student participation with individual course registration permissions or priority.
- > Retain a non-pathway option through GE.
- ➤ Pilot summer programs or packages of linked GE courses to encourage enrollment in Cal Poly GE offerings.
- > Survey stakeholders and call for pilot program proposals regarding possible pathway and/or minor themes.
- > Develop procedures for managing enrollments in different pathways and providing adequate courses/seats for interested students.

Principles:



Possible Themes

Global Perspectives

Food and Politics

Artificial Intelligence

Peace Studies

Social Justice

Race and Migration

Great Books and Ideas

Sustainability

Democracy and Fascism

SHARE YOUR THEME
IDEAS

Who can teach us?

- Our stakeholders
- AAC&U Research and Guidance on GE Pathways
- Virginia Tech Recent implementation of GE pathways
- CSU Chico Recent assessment after 5+ years of GE pathways
- Cal Poly's own interdisciplinary minor programs

OTHER?

INNOVATION OPPORTUNITY!
With resources and more space to create, what can you do?!?!

Your Hopes...

Your Concerns...

Your Ideas...

INTEGRATE INTERDISCIPLINARY LEARNING OPPORTUNITIES AND EXPERIENCES INTO GE.

(Pedagogy and Course Design, DRAFT Recommendation III.1)

LIKE IT?

Stick a dot here or next to any ideas you support

Design Ideas and Opportunities

- Create courses on issues of contemporary interest allow students to learn how people from different academic disciplines collaborate to solve "real-world" problems.
- > Meaning Making Allow students to follow their passions in intellectual ways.
- Draw on Cal Poly faculty interests, abilities, and expertise while encouraging collaborative work across programs, departments, and colleges.
- Provide professional development opportunities, mentoring, and sustained workload incentives/support for instructional teams assigned interdisciplinary courses.
- Consider interdisciplinary learning and related best practices during the evaluation and redesign of educational objectives for each GE subject area
- Develop best practice guidelines for team teaching and interdisciplinary GE experiences.
- > Support GEGB work to develop a fast-track curricular mechanism: onetime or limited-time GE courses focused on contemporary issues.

INNOVATION OPPORTUNITY!
With resources and more space to create, what can you do?!?!

Principles:

Instructional Teams?



SHARE YOUR
INTERDISCIPLINARY
LEARNING IDEAS

Who can teach us?

- Our stakeholders
- Lessons learned from past Cal Poly UNIV courses
- > University of Maryland "I-Series"
- > Team teaching models and approaches at other CSUS

OTHER?

RESOURCE INTENSIVE!

Are we willing to commit new resources to this challenge?

\$

Your Hopes...

Your Concerns...

Your Ideas...

CHAMPION AND SUPPORT THE BROAD APPLICATION OF LEARN BY DOING PEDAGOGIES AND HIGH-IMPACT LEARNING PRACTICES IN GE.

(Pedagogy and Course Design, DRAFT Recommendation III.2)

LIKE IT?

Stick a dot here or next to any ideas you support

Design Ideas and Opportunities

- Recruit and encourage instructors with expertise and experience in high-impact learning practices* to teach GE courses, mentor GE instructors, and participate in GE governance.
 - (*First-year seminars and experiences, writing-intensive courses, collaborative assignments and projects, undergraduate research, diversity and global learning, service learning, capstone courses and projects.)
- Provide Cal Poly students with the opportunity to Learn By Doing (LBD) across their entire program of study (major and GE).
- > Develop a <u>distinctive</u> GE program/destination that is closely linked with the university's mission.
- ➤ Limit enrollment in writing intensive GE courses to 25 students.
- Support the Graduation Writing Requirement (GWR) Task Force recommendations for course capacity, course requirements, and instructor requirements for teaching GWR-approved upper-division courses.
- > Develop a best practice guide for incorporating high-impact educational practices into large GE classes. Build on past successes!
- Provide professional development opportunities and incentives for instructors to incorporate high-impact educational practices into existing or proposed GE courses.
- Modify the existing GE course proposal form to include a section where instructors explain how Learn By Doing and/or high-impact educational practices are used to address course learning objectives.

Principles:

What is LBD in Cal Poly GE?



SHARE YOUR IDEAS

Who can teach us?

- > Our stakeholders
- > Instructors teaching large enrollment GE courses
- Campus writing experts
- Kennedy Library and Learn By Doing Scholars



OTHER?

ESSENTIAL RECOMMENDATION!
General Education at Cal Poly must
lead on this issue.

Your Hopes...

Your Concerns...

Your Ideas...

IV. MESSAGE AND OUTREACH

Principles:

DRAFT

RECOMMENDATIONS

Incorporate content and/or

advising into foundational,

to GE mission, objectives,

structure, value, and

experiences. (IV.1)

lower-division GE courses to

foster student learning related

Redesign advising tools (e.g.,

curriculum sheets, degree

dashboards, DPR, etc.) to

illustrate and promote an

integrative, meaningful, and

connected GE curriculum. (IV.2)

Rename the Cal Poly "General

Education" Program to better

reflect its goals, objectives,

and strengths, and have all

their names (rather than

letters and numbers). (IV.3)

campus materials refer to GE

subject areas and subareas by

flowcharts, PolyProfile,



in the classroom.

every Subject Area A and/or E course.

connections between GE and the major.

requirements and curricular progress.

learning experience!

subareas in a visual manner.

symbols, images, and/or graphics.

"general"?

PLOs to course learning objectives.

discussion during class meetings.

COLLABORATION REQUIRED! Instructors, Academic Affairs, Student Affairs, Advisors, Librarians, the Registrar and others working together! **DESIGN IDEAS AND OPPORTUNITIES** APPEAL? > In Cal Poly's "major-centric" culture, the importance of the GE curriculum must be reinforced "Integration of knowledge is not likely to occur unless the faculty model it in the classroom **LIKE IT?** [and] they help students to acquire the skills to do it on their own." - Jerry Gaff, AAC&U Devote at least one class period or assignment to different aspects of GE planning, advising, or Stick a dot here or GE PLO#4 ("Understand the value of general education in relation to a major course of study") in next to any ideas you > List GE Program Learning Objectives (PLOs) in all GE course syllabi, as well as mapping of GE support Provide instructors with guidance on GE messaging for inclusion in GE course syllabi and for > Design curriculum sheets and flowcharts to re-prioritize GE opportunities and to spotlight LIKE IT? > Recognize GE achievements and outstanding academic performance on student transcripts. > Encourage a new culture where a Cal Poly degree is valued for learning in the major and GE. Stick a dot here or > Use PolyProfile, degree progress report (DPR), and other online advising tools to highlight GE next to any ideas you support RESOURCE SINTENSIVE! > Provide students with the ability to develop a GE course plan in PolyPlanner. > Resources needed to support implementation of these changes. > Provide a new name for this core, interdisciplinary, connected, specific 72-unit breadth > Remake the culture of learning at Cal Poly - what kind of program could we do best and most **LIKE IT?** > Clearly convey intentions, purpose, meaning, and distinction – who is inspired by the Stick a dot here or > Include area names rather than letter/number designations in all Cal Poly materials (i.e., catalog, next to any ideas you websites, PASS, degree progress report, flowcharts, curriculum sheets, etc.). support > Use unique symbols and/or infographics to reference the GE program, subject areas, and > Hold contests to rename the program, subject areas, and subareas, and to develop meaningful **LIKE IT?** Stick a dot here or next to any ideas you

Your Hopes...

Your Concerns...

Your Ideas...

advisors (students, faculty, and staff) in each campus program, department, and college. (IV.4)

Select and mentor GE liaisons.

ambassadors, advocates, or

- > Create a campus-wide group of connected GE advocates and stewards.
- > Encourage and facilitate interdisciplinary collaboration between programs and departments.
- > Facilitate effective communication between the GE Program and other campus organizations.
- > Create professional development workshops for all GE representatives.
- > GE representatives offer guidance and feedback with course development, assessment, and approval efforts related to GE.
- > Personnel policies recognize this work as important service to the department, college, and
- > Includes other programs and individuals who represent the university, such as college- and university-level ambassadors, WOW leaders, University Admissions, Student Affairs, University Communications, Cal Poly Athletics, and others.

support

PROVIDE THE GE PROGRAM WITH THE RESOURCES NECESSARY TO SUPPORT A FULL-TIME DIRECTOR/CHAIR, A STAFF MEMBER, AND OFFICE SPACE. ALLOW THE APPROPRIATE EXPANSION OF GE'S ADMINISTRATIVE RESPONSIBILITIES.

LIKE IT?

Stick a dot here or next to any ideas you support

(Program Management and Assessment, DRAFT Recommendation V.1)

Principles: 1 2 3 4

Design Ideas and Opportunities

- Provide additional funding and resources to the GE Program, in accordance with the increased responsibilities recommended by program review and campus stakeholders.
- Expand the administrative responsibilities of the GE Program to include the redesign of GE subject areas, development and management of pilot initiatives, advocacy efforts, course renewal, enrollment management, scheduling, space and learning environment issues, and innovative and sustainable assessment.
- ➤ Return to an expanded GE administrative structure with GE Area Committees led by GE Area Chairs who receive assigned time. These committees will be crucial to carrying out the expanded responsibilities and program enhancements recommended by the GE Task Force.
- Support ongoing GEGB work to develop appropriate policies for online and hybrid GE courses.
- ➤ Create annual awards to recognize outstanding GE achievements by students, faculty, and staff.

INNOVATION OPPORTUNITY!
With resources and more space to create, what can you do?!?!

A Distinctive Program

Our current GE Program is almost 20 years old. The changes proposed by the GE Task Force and required by CSU policy are not trivial and will require careful planning and implementation.

As a university, are we ready and willing to devote the time and resources necessary to create a distinctive GE program that benefits the entire campus community?

\$

RESOURCE INTENSIVE!

Are we willing to commit new resources to this challenge?

\$

Your Hopes...

Your Concerns...

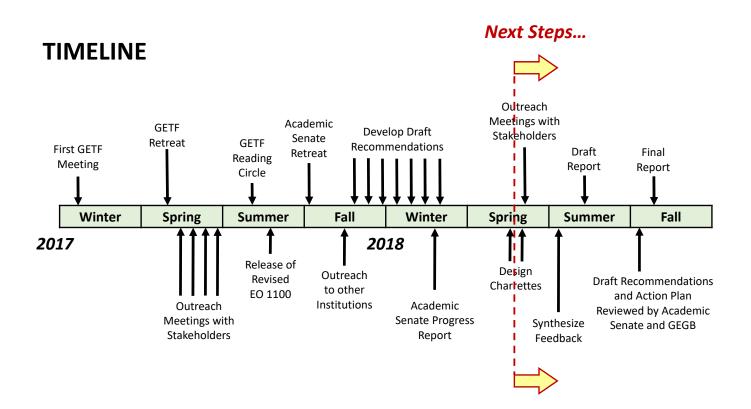
Your Ideas...

NEXT STEPS

THANK YOU so much for visiting today and providing feedback regarding the GE Task Force's draft recommendations! The next steps in this process are highlighted below. Fall 2018 represents an important milestone as the Academic Senate and GEGB will consider the GE Task Force recommendations and an action plan regarding GE design.

What can you do? Our charge to you?

- ☐ Keep informed regarding GE redesign efforts and initiatives.
- ☐ Continue to provide the Task Force with your feedback and ideas.
- □ Remind other students, faculty, and staff about this process and encourage them to become involved.
- ☐ Share your thoughts with members of the Academic Senate and the GEGB and advocate for changes you feel are important.
- □ Seek out opportunities to contribute to future GE redesign efforts.
- ☐ Help to build momentum!



APPENDIX G – DATABASE OF STAKEHOLDER FEEDBACK COLLECTED DURING DESIGN CHARRETTES

Available online and by request

APPENDIX H - BIBLIOGRAPHY

Aitchison, David Carlyle. "Decline and Renewal in the Liberal Arts as Themes for First-Year Writing." *Journal of General Education* 64.3 (2015): 157-170.

Anders, George. "That 'Useless' Liberal Arts Degree Has Become Tech's Hottest Ticket." *Forbes*, 29 July 2015, http://bit.ly/2MLU2nS.

Anders, George. You Can Do Anything: The Surprising Power of a "Useless" Liberal Arts Education. New York: Little, Brown and Company, 2017.

Anderson, Jenny. "Schooled in Life: One college finally designed a liberal arts education fit for the future of work." *Quartz*, 29 April 2018, http://bit.ly/2MG2eWu.

Anderson, Paul, *et al.* "How Writing Contributes to Learning: New Findings from a National Study and Their Local Application." *Peer Review* 19.1 (Winter 2017), http://bit.ly/2LO2IEL.

Barlett, Peggy F. and Geoffrey W. Chase, eds. *Sustainability in Higher Education: Stories and Strategies for Transformation*. Cambridge, Massachusetts: MIT Press, 2013.

Bauer-Wolf, Jeremy. "Overconfident Students, Dubious Employers: A new study identifies the gaps between graduates' views of their skills and the views of those who hire them." *Inside Higher Ed*, 23 February 2018, http://bit.ly/2ORkSYO.

Blondin, Jill E. and Rachel Gable. "Global Learning as Liberal Learning for All Majors." *Peer Review* 20.1 (Winter 2018), https://www.aacu.org/peerreview/2018/Winter/VCU.

Bowen, Stephen H. "Reality Check: What's in a Name? The Persistence of 'General Education." *Peer Review* 7.1 (Fall 2004), http://bit.ly/2L2INCU.

Buhler, Dakota. "Why 'Great Books' Programs Are Enjoying a Resurgence in Popularity." *Study Breaks*, 7 June 2017, https://studybreaks.com/2017/06/07/great-books-program/.

Calder, Lendol. "Uncoverage: Toward a Signature Pedagogy for the History Survey." *Journal of American History* 92.4 (March 2006): 1358-1370.

Chen, Helen and Thomas Black. "Clear as Mud: Finding Ways to Improve Upon the College Transcript." *The EvoLLLution*, 17 April 2018, http://bit.ly/2OVdwnc.

Chuang, Angie. "Woke 101: If Starbucks struggled to teach about race, can universities' diversity curriculums do better?" *Grade Point* blog, *Washington Post*, 13 June 2018, https://wapo.st/2B2qRYe.

Cuevas, Nuria M., Alexei G. Matveev and Khadijah O. Miller. "Mapping General Education Outcomes in the Major: Intentionality and Transparency." *Peer Review* 12.1 (Winter 2010), http://bit.ly/2otkLGS.

Daniels, Ronald J. "Please, students, take that 'impractical' humanities course. We will all benefit." *Washington Post*, 14 September 2018, https://wapo.st/2yf5AX7.

Deresiewicz, William. "The Disadvantages of an Elite Education: Our best universities have forgotten that the reason they exist is to make minds, not careers." *The American Scholar*, 1 June 2008, https://theamericanscholar.org/the-disadvantages-of-an-elite-education/#.W4t2sX5rzJw.

Deresiewicz, William. Excellent Sheep: The Miseducation of the American Elite and the Way to a Meaningful Life. New York: Free Press, 2014.

Doscher, Stephanie and Hilary Landorf. "Universal Global Learning, Inclusive Excellence, and Higher Education's Greater Purpose." *Peer Review* 20.1 (Winter 2018), http://bit.ly/2Ca4DE9.

The Drama of Diversity and Democracy: Higher Education and American Commitments, Second Edition. Washington, D.C.: Association of American Colleges and Universities, 2011, http://bit.ly/2Ca9nJX.

Ensign, Margee. "Civic engagement and the value of college." *Grade Point* blog, *Washington Post*, 23 April 2018, https://wapo.st/2MFhZwO.

Eodice, Michele, Anne Ellen Geller and Neal Lerner. "What Meaningful Writing Means for Students." *Peer Review* 19.1 (Winter 2017), http://bit.ly/2LO2Nbx.

Estrada, Aaron R. and Lizabeth Thompson Schlemer, "Taxonomy of Faculty Assumptions about Students," 2015 IEEE Frontiers in Education Conference (December 2015): 96-100.

Flaherty, Colleen. "A Call to Reform Undergraduate Education." *Inside Higher Ed*, 30 November 2017, http://bit.ly/2Pu4Ofb.

Flaherty, Colleen. "Seeking a New 'Golden Age' of General Education." *Inside Higher Ed*, 6 August 2018, http://bit.ly/2CbDXD0.

Frank, Jeff. "Technology, stupor and the future of liberal arts colleges: What would Tolstoy say?" *The Hechinger Report*, 22 May 2018, http://bit.ly/2owaMAI.

Gabriel, Kathleen F. "Five Ways to Promote a More Inclusive Classroom." *Faculty Focus*, 21 May 2018, http://bit.ly/2KCCwwl.

Gaff, Jerry G. "Overcoming Barriers: Interdisciplinary Studies in Disciplinary Institutions." *Issues In Integrative Studies* 12 (1994): 169-180.

Gallagher, Brian. "The Case Against Lectures." *Nautilus: Science Connected*, 11 April 2018, http://nautil.us/blog/the-case-against-lectures.

Gaston, Paul L. and Jerry G. Gaff. *Revising General Education -- and Avoiding the Potholes*. Washington, D.C.: Association of American Colleges and Universities, 2009.

General Education in the 21st Century: A Report of the University of California Commission on General Education. Berkeley: Center for Studies in Higher Education, 2007, https://cshe.berkeley.edu/sites/default/files/publications/gec-web.final.pdf.

Golden, Daniel. The Price of Admission: How America's Ruling Class Buys Its Way Into Elite Colleges -- and Who Gets Left Outside the Gates. New York: Crown Publishers, 2006.

Goldman, Corey A. "A Cohort-based Learning Community Enhances Academic Success and Satisfaction with University Experience for First-Year Students." *The Canadian Journal for the Scholarship of Teaching and Learning* 3.2 (December 2012), http://dx.doi.org/10.5206/cjsotl-rcacea.2012.2.3.

Gooblar, David. "Your Students Learn by Doing, Not by Listening." *Chronicle of Higher Education*, 1 May 2018, http://bit.ly/2PVzHKy.

Hanstedt, Paul. *General Education Essentials: A Guide for College Faculty*. San Francisco: Jossey-Bass, 2012, http://site.ebrary.com/lib/calpoly/reader.action?docID=10560679.

Harpham, Geoffrey Galt. What Do You Think, Mr. Ramirez?: The American Revolution in Education. Chicago: University of Chicago Press, 2017.

Hendricks, Scotty. "Need Another Use for a Liberal Arts Education? How about Learning to Be a Citizen?" *Big Think*, December 2, 2017, http://bit.ly/2N8L3MQ.

Hickey, Daniel T. "How Open E-Credentials Will Transform Higher Education." *Chronicle of Higher Education*, 9 April 2017, http://bit.ly/2wAqKOF.

"High-Impact Practices." *National Survey of Student Engagement*, 2018, http://nsse.indiana.edu/html/high_impact_practices.cfm.

Hothem, Thomas. "Integrated General Education and the Extent of Interdisciplinarity: The University of California–Merced's Core 1 Curriculum." *Journal of General Education* 62.2-3 (2013), http://www.jstor.org.ezproxy.lib.calpoly.edu/stable/pdf/27798118.pdf.

"Humanities in the News." 2014-2018. Newsfeed curated by Jackman Humanities Institute, University of Toronto, https://humanities.utoronto.ca/Humanities News.

"I-Series Courses." General Education @ UMD, 2018, http://www.gened.umd.edu/i-series/iseries.html.

"IU study finds high-impact practices boost learning, involved parents no problem." IU News Room, November 2007, http://newsinfo.iu.edu/web/page/normal/6834.html.

Jackson-Hayes, Loretta. "We don't need more STEM majors. We need more STEM majors with liberal arts training: The ability to draw from other disciplines produces better scientists." *Washington Post*, 18 February 2015, https://wapo.st/2ATSfHw.

Korn, Melissa. "Your College Major Is a Minor Issue, Employers Say." *At Work* blog, *Wall Street Journal*, 10 April 2013, https://on.wsj.com/2oxeude.

Kuh, George D. High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter. Washington, D.C.: Association of American Colleges & Universities, 2008.

Leskes, Andrea and Ross E. Miller. *Purposeful Pathways: Helping Students Achieve Key Learning Outcomes*. Washington, D.C.: Association of American Colleges and Universities, 2006.

Lusardi, Annamaria and Lauren E. Willis, "Should College Students Be Required to Take a Course in Personal Finance? Supporters of the idea say financial literacy is crucial in today's world. Opponents say courses miss the real issues." *Wall Street Journal*, 19 March 2017, https://on.wsj.com/2wBcOnD or https://on.wsj.com/2wBcOnD or https://on.wsj.com/2wBcOnD or

Mangan, Katherine. "Can 'Guided Pathways' Keep Students From Being Overwhelmed by Choice?" *Chronicle of Higher Education*, 25 April 2017, http://bit.ly/2wCz5kf.

Mayhew, Matthew J. and Benjamin S. Selznick. "Why double-majors might beat you out of a job." *The Conversation*, 9 April 2018, http://bit.ly/2wAsx6B.

McConnell, Kate Drezek. "What Assessment Is Really About." *Inside Higher Ed*, 1 March 2018, http://bit.ly/2oxwOmU.

Montchal, Jimmy. "Elon University's Experiential Transcript — What the Future Looks Like." *Parchment*, 26 May 2016, http://bit.ly/2vY7euw.

Newton, Robert. "Tensions and Models in General Education Planning." *The Journal of General Education* 49.3 (2000): 165-181.

Perez, Angel B. "It's not just about jobs. Colleges must help students find their passions." *Washington Post*, 10 March 2017, https://wapo.st/2Ps7tpA.

Redaelli, Eleonora. "Educating for Participation: Democratic Life and Performative Learning." *Journal of General Education* 64.4 (2015): 334-353.

Redman, Peggy. "Going Beyond the Requirement: The Capstone Experience." *Peer Review* 15.4 (Fall 2013): 12-15, http://bit.ly/2LK5r20.

Rondeau, Anne. "Gen Eds – Are They Worth It?" *Huffington Post*, 29 March 2017, http://bit.ly/2LMvu8O.

Ross, Dan. "The Liberating Arts: Math's place in the liberal arts." *The Highland Echo* (Maryville College, Tennessee), 8 March 2017, http://bit.ly/2Naz7tY.

Roth, Michael S. "Our graduates should answer cynicism and insults with inquiry and reflection." *Grade Point* blog, *Washington Post*, 29 May 2018, https://wapo.st/2PZEU4e.

Santone, Susan. *Reframing the Curriculum: Design for Social Justice and Sustainability*. New York: Routledge, 2019.

Scheuer, Jeffrey. "Critical Thinking and the Liberal Arts: We neglect them at our peril." *American Association of University Professors*, November-December 2015, http://bit.ly/2NFnwQo.

Schlemer, Lizabeth T., Kylie Hensley, Rachel Pittman, and Jada Golland. "SUSTAIN SLO: Reenergizing Learning." Paper presented at 122nd ASEE Annual Conference & Exposition, 14-17 June 2015, Seattle, http://bit.ly/2O21tFn.

Scott, Amy. "College business programs look to the liberal arts model." *Marketplace*, 2 May 2017, http://bit.ly/2wCvTFi.

Selingo, Jeffrey J. "Forget coding. It's the soft skills, stupid. And that's what schools should be teaching." *Grade Point* blog, *Washington Post*, 20 April 2018, https://wapo.st/2M3mG3t.

Selingo, Jeffrey J. "Six Myths About Choosing a College Major." *New York Times*, 3 November 2017, https://www.nytimes.com/2017/11/03/education/edlife/choosing-a-college-major.html.

Sheffield, Carrie. "How a liberal arts education pays off in Silicon Valley: Is the integration of tech and liberal arts causing us to rethink our careers?" *Salon*, 19 April 2017, http://bit.ly/2owqDiA.

Shen, Amy. "Intellectual Vitality or Intellectual Insecurity?" *Stanford Review*, 3 May 2017, https://stanfordreview.org/intellectual-vitality-or-intellectual-insecurity-4779fcd1aaa4.

Smith, Subrena E. "Why philosophy is so important in science education." *Quartz*, 20 November 2017, https://qz.com/1132948/why-philosophy-is-so-important-in-science-education/.

Stains, Marilyne, *et al.* "Anatomy of STEM teaching in North American universities." *Science* 359.6383 (30 March 2018), http://science.sciencemag.org/content/359/6383/1468.full.

Stross, Randall E. *A Practical Education: Why Liberal Arts Majors Make Great Employees* Stanford: Redwood Press, 2017.

Substance Media Inc. "Success in the New Economy." *YouTube*, 28 January 2015, https://youtu.be/zs6nQpVI164.

Sunstein, Cass R. and Richard H. Thaler. "Libertarian Paternalism Is Not an Oxymoron." *University of Chicago Law Review* 70.4 (Autumn 2003): 1159-1202.

Supiano, Beckie. "How Colleges Can Help STEM Students Think More Broadly." *Chronicle of Higher Education*, 9 May 2018, http://bit.ly/2P4J1vk.

Tan, Melody. "Letter to the Editor: Distribution learning matters." *The Rice Thresher* (Rice University), 9 March 2017, http://bit.ly/2NCGjvK.

Thompson, Clarissa A., Michele Eodice, and Phuoc Tran. "Student Perceptions of General Education Requirements at a Large Public University: No Surprises?" *Journal of General Education* 64.4 (2015): 278-293.

Uhler, Andy. "Liberal arts majors are getting paid." Marketplace, 26 October 2016, http://bit.ly/2owwNil.

Vander Schee, Brian A. "Changing General Education Perceptions through Perspectives and the Interdisciplinary First-Year Seminar." *International Journal of Teaching and Learning in Higher Education* 23.3 (2011), https://files.eric.ed.gov/fulltext/EJ946164.pdf.

Wehlburg, Catherine M. ed. *Integrated General Education (New Directions for Teaching and Learning*, Issue 121). San Francisco: Jossey-Bass, 2010.

Weinberg, Adam. "Globalizing the Liberal Arts." LinkedIn Pulse, 2 October 2018, http://bit.ly/2IRB6yC.

Wong, Kristin. "Why We Shouldn't Think About College as a Business." *New York Times*, 31 July 2017, https://nyti.ms/2otsyVg.