



THE CALIFORNIA STATE UNIVERSITY



UNIVERSITY OF CALIFORNIA

---

# Guiding Notes for General Education Course Review

These Guiding Notes have been developed based on recommendations from the faculty and staff who review California community college (CCC) course outlines proposed for lower-division general education credit in the University of California (UC) and the California State University (CSU). They elaborate on state and systemwide policies, adding guidance from experienced reviewers.

The Guiding Notes are in five parts:

<b>Part One</b>	Background	2
<b>Part Two</b>	Course Outline of Record and Submission Checklist	11
<b>Part Three</b>	GE Review Criteria by Area	12
	Oral Communication	16
	Written Communication	18
	Critical Thinking and Composition	19
	Physical and Biological Sciences	20
	Math and Quantitative Reasoning	25
	Arts and Humanities	32
	Social Sciences	38
	Lifelong Learning	40
	Ethnic Studies	42
	Language other than English	44
	American Institutions	46
<b>Part Four</b>	Common Examples of Corrections to Align General Education Courses with Criteria	48
<b>Part Five</b>	Electronic Bibliography	54

We make these Guiding Notes available to the public so our colleagues can see what the CSU and UC look for in proposals for general education courses. For California community colleges, this may make for quicker and more successful course submissions.

This document is continuously shaped by the faculty and staff in California's public colleges and universities who serve as GE course reviewers. California's Title 5, the IGETC Standards, and CSU Policy remain the official documents for the general education transfer curriculum. Links to those policies and to these annually updated Guiding Notes are available in Part Five.

Quajuana M. Chapman  
CSU Office of the Chancellor  
[qchapman@calstate.edu](mailto:qchapman@calstate.edu)

Chase Fischerhall  
UC Office of the President  
[Chase.Fischerhall@ucop.edu](mailto:Chase.Fischerhall@ucop.edu)

## **PART ONE: BACKGROUND**

### **The Purpose of General Education**

General education represents the universal curriculum of the degree, the learning expected of all baccalaureate-level students inclusive of every background and major. It develops these intellectual capacities and versatility that employers say they most value:

- Effective oral and written communication
- Critical thinking
- Familiarity with styles of inquiry from a range of disciplines
- Ability to work in groups
- Skills to solve complex problems
- Tolerance for ambiguity
- An understanding of a variety of cultures and ethnicities, including one's own

The universities of the UC and CSU systems have each created a distinct general education curriculum that meets these goals. Students who know which university they will attend may be best served by the local GE curriculum but should check with the receiving campus to see whether IGETC or CSU GE Breadth is preferred.

For transfer students planning to attend a California public university but who are unsure of which one, the GE transfer curriculum establishes universally accepted minimum requirements in different academic areas so that students know which courses will take them closer to the degree, while maintaining consistent breadth in the baccalaureate degree.

Students who transfer into the UC or CSU from California Community Colleges (CCC) may be “certified” as having completed the lower-division requirements for general education.

Administration of the two statewide general education patterns is set by Title 5 of the California Code of Regulations, and governed day-to-day by these policies:

	<b>For students bound for</b>	<b>Governing Policy</b>	<b>Guidelines</b>
<b>CSU GE Breadth</b>	Any CSU	<a href="#">CSU GE Breadth Requirements</a>	The Guiding Notes
<b>Intersegmental GE Transfer Curriculum (IGETC)</b>	Any UC or CSU	IGETC Standards	<a href="#">IGETC Standards Version 2.3</a>

Each curriculum is defined by the set of courses approved for its subject areas, as published at [assist.org](https://assist.org) and updated annually. The reviewers who use these Guiding Notes are participating in the annual updates by evaluating CCC course outlines proposed for GE credit in California's public universities.

### **General Education Certification vs. Admission Requirements**

Both CSU GE Breadth and IGETC will apply to any CSU, and IGETC will apply to any UC or CSU. However, IGETC may not be acceptable or recommended for students in some colleges or in high-unit majors (e.g., science or engineering). For these majors, longer chains of prerequisites may make it more advantageous to take lower-division coursework in the discipline, and then complete general education and major requirements as matriculated students at the university. For more details on this process, see “CSU GE Breadth and IGETC for STEM Majors within ADTs” below.

Community college counselors can help students choose the most efficient way to complete their general education. Students and their counselors should remember that any kind of GE certification before transfer is separate from – and does not guarantee – admission: certification recognizes completed coursework, not eligibility to enroll. For UC, see “[Quick Reference Guide to UC Admissions](https://admission.universityofcalifornia.edu/counselors/files/quick-reference.pdf)” at <https://admission.universityofcalifornia.edu/counselors/files/quick-reference.pdf>. For CSU, see “Admission Handbook” at <https://www.calstate.edu/attend/student-services/Documents/Admissions-Handbook-2022-23.pdf>.

### **“Golden Four” CSU GE Courses**

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

“Golden Four” courses required for transfer to the CSU:

- A1 Oral Communication
- A2 Written Communication
- A3 Critical Thinking
- B4 Mathematics/Quantitative Reasoning

GE policy does not prohibit students from satisfying the Golden Four requirements with Pass grades as long as the “P” represents a letter grade of C- or better. However, we recommend that students take these courses for a letter grade as some impacted majors and campuses may require letter grades in all required courses as a function of determining admission.

## **Pass-Along CSU GE Breadth Certification**

A CCC may certify coursework completed at another CCC if the courses are on the approved certification list at the CCC. The course shall be certified in the CSU GE Breadth area that is on the official certification list for the CCC at which the course was taken.

### **Example**

A student is currently attending CCC #2. The student completed HIST 106 at CCC #1 which is approved in Area D (Social Sciences). However, HIST 106 is approved at CCC #2 in Area C2 (Humanities). CCC #2 will “pass-along” HIST 106 from CCC #1 in Area D (Social Sciences) for CSU GE Breadth certification.

If so identified by a CCC, those courses shall contribute to qualification of a student for either full certification or subject-area certification, as appropriate.

A CCC may include upper-division courses taken at regionally accredited institutions in certification of lower-division CSU GE or IGETC.

Coursework completed at regionally accredited institutions shall be reviewed for certification purposes by the CCC faculty in the discipline or their designee (e.g., Articulation Officer) to determine if the course is comparable to current CSU GE Breadth requirements.

A CCC may certify coursework taken at regionally accredited institutions if the faculty of that CCC or the Articulation Officer determine that the coursework is equivalent to the coursework on their college’s approved CSU GE Breadth certification list.

## **CSU GE Breadth vs. IGETC**

Both the CSU GE Breadth and IGETC patterns are designed to educate students to think, write, and speak clearly and logically; to reason quantitatively; to know about the human body and mind, the development and functioning of human society, the physical and biological world, and human cultures and civilizations; and to develop an understanding of the principles, methods, and values of human inquiry.

They do so by grouping disciplines and modes of inquiry into areas such as science and social science. Most areas and subareas in CSU GE Breadth match those in IGETC, and so course outlines are routinely submitted for both. See the chart for a detailed comparison of areas.

GE Breadth (CSU only)		Discipline	IGETC (CSU and UC systems)	
AREA A	A1	Oral Communication	1C	[1C not UC required] AREA 1
	A2	Written Communication	1A	
	A3	Critical Thinking	1B	
AREA B	B1	Physical Sciences	5A	AREA 5  AREA 2
	B2	Biological Sciences	5B	
	B3	Laboratory Activity	5C	
	B4	Mathematics	2A	
AREA C	C1	Arts	3A	AREA 3
	C2	Humanities	3B	
AREA D	D	Social Sciences	4	AREA 4
AREA E	E	Lifelong Learning	no area	[not UC required]
AREA F	F	Ethnic Studies	no area	[not UC required]
[not CSU required]	no area	Language Other than English	6A	[not CSU required]

### **Certification via Completion of an Approved Associate Degree for Transfer (ADT)**

For CSU: CCC students are considered fully lower-division general education certified if they successfully completed CSU GE Breadth requirements or IGETC for CSU and are awarded an ADT.

For UC: completing IGETC may satisfy the seven-course pattern requirement and earning an ADT may be considered by some campuses in the comprehensive review process. (For more information: <https://admission.universityofcalifornia.edu/index.html>).

### **CSU GE Breadth and IGETC for STEM Majors within ADTs**

Students pursuing Biology, Chemistry, and Environmental Science ADTs may complete the following:

- a. CSU GE Breadth for STEM (33 units); or
- b. IGETC for STEM (31 units); and
- c. Defer one lower-division course in Area C or Area 3 Arts and Humanities and one lower-division course in Area D or Area 4 Social and Behavioral Sciences until after transfer.

CSU GE Breadth for STEM and IGETC for STEM is applicable only to majors for which the Transfer Model Curriculum (TMC) specifies. A current list of TMCs that allow CSU GE Breadth for STEM can be found at <https://c-id.net/tmc>.

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

- a. All courses in Areas A, B, and E of the traditional CSU GE curriculum; and
- b. One course in Subarea C1 Arts; one course in Subarea C2 Humanities; and
- c. One course in Area D Social Sciences; and
- d. One course in Area F Ethnic Studies

A CCC preparing IGETC for STEM certification as part of an ADT shall ensure that the student has completed the following before transfer:

- a. All courses in Area 1, 2, and 5 of the traditional IGETC; and
- b. One course in Area 3A Arts; one course in Area 3B Humanities; and
- c. Two courses in Area 4 Social and Behavioral Sciences from two different disciplines.

**CSU GE Breadth and IGETC similarities and differences:**

In practice, the IGETC pattern is more restrictive. Courses that are approved for IGETC are automatically approved for the corresponding Area(s) or Subarea(s) in CSU GE Breadth if the CCC also requests it in the course proposal. However, not all courses approved for CSU GE Breadth are approved for IGETC. The exception to this rule is CSU GE Subarea A1 (IGETC 1C). Approval for courses in this Subarea is based solely on the CSU decision.

Topic	GE Breadth (CSU only)	IGETC (CSU and UC)
Units	A single course may carry any number of units. However, courses of less than 3 semester (or 4 quarter) units are rarely approved for CSU GE (except for physical activity courses). Stand-alone lab courses, which have a prerequisite or co-requisite of the corresponding lecture course, must be a minimum of 1 semester/quarter unit.	Each course must carry a minimum of 3 semester (or 4 quarter) units. Stand-alone lab courses which have a prerequisite or co-requisite of the corresponding lecture course must be a minimum 1 semester/quarter unit.
Minimum Grade	Any passing grade will count for courses other than the golden four which require a C- or better: Written Communication, Oral Communication, Critical Thinking, and Quantitative Reasoning.	Only grades of C or better will count for any courses.
Ethnic Studies	CSU GE lower-division, 3 semester (4 quarter) unit course requirement.	Does not require Ethnic Studies for students transferring to the UC.

Topic	GE Breadth (CSU only)	IGETC (CSU and UC)
Oral Communication	Requires Oral Communication course for students transferring to the CSU.	Does not require Oral Communication course for students transferring to the UC.
Mathematics and Quantitative Reasoning	Courses in Subarea B4 will have a prerequisite reflective only of the skills and knowledge needed to succeed in the course.	Completion of a Mathematics, Statistics, or other Quantitative Reasoning course. Historically, the prerequisite for 2A courses was intermediate algebra or equivalent.* Currently, some courses use intermediate algebra as a prerequisite but others include co-requisite content or build the prerequisite skill development into the course itself.
Lifelong Learning	Includes an area in Lifelong Understanding and Self-Development.	No area in Lifelong Understanding and Self-Development
LOTE	Does not require Language Other Than English (LOTE).	Requires Language Other Than English (LOTE) for students transferring to the UC.



## Process Overview: Faculty and Staff Review

CCCs submit new or revised course outlines of record (COR) to the CSU and UC system offices electronically via ASSIST. CORs must be approved by the college through the local curriculum approval process. Intersegmental faculty and staff then evaluate the outlines for alignment with **CSU GE Breadth Requirements and IGETC Standards**. CCCs are responsible for submitting accurate and current course outlines. If a course has a decrease in units or has changed substantially since its last review, a CCC should select “*Substantial Change*” during the course submission process. (For a description of what counts as a “*substantial change*”, see Submission section, below.)



Figure 1: Annual Review Process

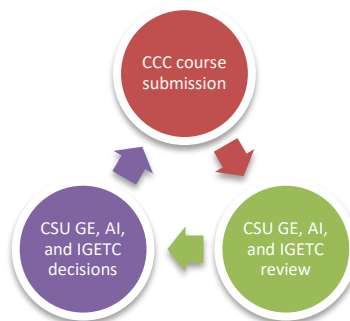


Figure 2: Review Cycle

**Course Design**

Courses are created by faculty at CCC. The CSU and UC systems don't suggest particular subjects. Before they can be offered (or submitted to a system office for GE transfer credit), courses go through the normal channels of curriculum approval, **and only baccalaureate-level courses are eligible for GE transfer credit.** CCC courses must be UC-transferable (approved for the UC TCA) to be approved for IGETC. Subsequent determinations made by the UC and CSU relate only to the suitability of a course to an area of a GE pattern, and even high-quality courses may be denied.

A word of caution to the CCC faculty who design courses for general education transfer credit in the UC or CSU: *some published approvals are better models than others.* Until 1993, courses were accepted without review by the four-year institutions. When the public segments created the current review process, those courses were “grandfathered in” without review. Second, as knowledge and the needs of our graduates evolve, so do our review criteria for general education. Creators of courses are encouraged to choose as examples those courses approved recently, and in no case earlier than 1993.

**COR Submission**

In the fall, CCC articulation officers submit courses by entering their new or substantially revised course outlines into ASSIST. Course outlines submitted with “substantial changes” must include an explanation of revisions.

**Substantial changes** for re-review include cross-listing courses, changes in content, student learning objectives, modes of delivery (*only if* student learning objectives or content are affected), prerequisites, contact hours and/or decrease in units, or methods/criteria of assessment.

**Technical changes** (not requiring review) include prefix, number, increase in units, title changes and/or updates of representative texts and/or resource materials.

<b>CSU GE Breadth and IGETC Review Substantial Changes (requires re-review in ASSIST)</b>
Course content
Course objectives/learning objectives
Contact hours and/or decrease in units
Cross-listing courses
Methods of instruction and/or evaluation
Modes of delivery ( <i>only if</i> student learning objectives or content are affected)
Prerequisites

Technical Changes (not requiring review)
Course number
Course prefix/subject change
Title change
Updates to representative textbooks

After the course outline data has been submitted in ASSIST, it is then available to the CSU Office of the Chancellor (CSUCO) and the UC Office of the President (UCOP).

**1<sup>st</sup> Level Review**

Every submitted course undergoes a **1<sup>st</sup>-level review** conducted by at least two readers. All courses are reviewed comprehensively; that is, if a course with current approval in biology is resubmitted for additional approval in social sciences, then reviewers will evaluate its fit for both areas of general education, and the pre-existing approval in biology may be phased out. Each **1<sup>st</sup>-level review** ends with a preliminary recommendation.

**2<sup>nd</sup> Level Review**

For a minority of submitted courses, first-level reviewers are unable to agree on whether to recommend approval. These courses are referred to **2<sup>nd</sup> level review** by additional staff or by faculty in the disciplines.

**Reconciliation**

Reviewer recommendations for courses in CSU GE Breadth and American Institutions are reconciled in the CSUCO. Determinations of IGETC congruence are made in discussions between the CSUCO and UCOP.

**Decision and Notification in ASSIST**

By May, CCC articulation officers view decisions within ASSIST. CSU GE Breadth and IGETC certification course lists are available at [assist.org](http://assist.org).

## **Respecting Precedent vs. Responding to Change**

Submitting CCCs sometimes point to comparable courses already approved at another CCC and ask whether reviewers feel bound by precedent. For the most part the answer is “no”: if a recently denied submission looks like longstanding approved courses elsewhere, then we are more likely to reconsider and remove the originally approved course than to extend similar approvals for the sake of consistency. The needs of the state, guidance from disciplinary faculty, and our understanding of the world and how best to learn about it are all evolving, and good articulation has to accommodate that, even if progress does not happen everywhere at the same rate.

However, we also recognize that frequent changes in the statewide transferability of a single course can disrupt enrollment, advising, and planning, and so very recent approvals may be allowed to stand even over the valid objections of subsequent reviewers.

## **PART TWO: COURSE OUTLINE OF RECORD AND COURSE SUBMISSION CHECKLIST**

### **COR Components**

1. Course units
2. Course description
3. Total lecture hours per term
4. Total lab hours per term
5. Prerequisites, corequisites or advisories on recommended preparation (if any)
6. Course objectives
7. Course content in terms of a specific body of knowledge
8. Methods of instruction
9. Methods of evaluation
10. Required textbooks and readings
11. College-level assignments (e.g., writing, reading, outside-of-class)

### **COR Submission Checklist**

CCCs will indicate the pattern, CSU GE Breadth and/or IGETC Areas (including appropriate GE subareas) to which proposed courses are applied. Reviewers use area-specific criteria as well as the following, which apply to all submitted courses:

- ✓ Any course submitted for CSU GE Breadth or IGETC must be baccalaureate level. For IGETC, courses must be UC-transferable (on the UC TCA).
- ✓ Course has appropriate number of units for CSU GE Breadth or IGETC Area.

- ✓ Course content should reflect a balance between breadth and depth appropriate for lower-division work.
- ✓ Variable-topics courses are excluded (directed-study or independent study).
- ✓ Course outline includes at least one textbook; laboratory activities must include lab manual.
- ✓ Representative textbooks are current and published within 7 years of submission year or identified as a “classic text” or “discipline classic”.
- ✓ Course outline includes methods/criteria of assessment and college-level assignments.
- ✓ Course outline contains enough detail to make a decision in proposed CSU GE Breadth and/or IGETC Area.
- ✓ Course outline should make sense to the reviewers.
- ✓ Course outline is in English.
- ✓ Course outline is complete.

### **PART THREE: REVIEW CRITERIA BY AREA**

#### **Criteria Applying to All Areas**

Courses in the IGETC shall be culturally broad in their conception. They should help students understand the nature and richness of human culture and social structures through a comparative approach and have a pronounced historical perspective. They should recognize the contributions to knowledge, civilization, and society that have been made by men, women and members of various ethnic or cultural groups.

IGETC courses shall address the modes of inquiry that characterize the different areas of human thought: the nature of the questions that can be addressed, the way questions are formulated, the way analysis is conducted, and the validity and implications of the answers obtained.

CCCs will indicate the pattern, GE Area and Subarea for which courses are proposed. Reviewers use area-specific criteria as well as the following, which apply to all submitted courses:

**Any course submitted for GE must be baccalaureate level.** Because CCCs serve multiple constituencies, not everything they teach is comparable in depth and rigor to courses at four-year universities; for example, some courses are instead meant to train students for specific jobs, or to prepare them for college.

The UC faculty have asked to review every community college course proposed for transferability, whether or not for general education. Community college courses must be approved for the UC Transfer Course Agreement (UC TCA) in order to be submitted and approved for IGETC.

CSU faculty chose instead to let CCCs decide which courses should transfer. In 1973, the CSU adopted Transfer Credit ([Executive Order 167](#)) to define transferability. Later the CSU's faculty senate elaborated on the definition in a document called "[What Constitutes a Baccalaureate Level Course](#)". Generally, indications that a course is baccalaureate level include (1) a clear emphasis on cultural, historic, aesthetic, or other intellectual facets of the subject taught – particularly in classes that otherwise would amount to skills development; (2) stated requirements in reading and writing; (3) high demands of students, substantial student-faculty interaction, and clearly distinguished entry- and exit-level expectations; and (4) the existence of comparable courses at four-year institutions.

**Courses must carry an appropriate number of units.** In the IGETC pattern, any course must carry at least 3 semester units or 4 quarter units of credit. In the CSU GE Breadth pattern, *courses of less than 3 units (other than physical activity and lab science courses) are rarely approved as they do not provide the depth and breadth that is required for CSU GE courses.*

Stand-alone lab science courses that have a prerequisite or co-requisite of the corresponding lecture course must be a minimum 1 semester/quarter unit). For specific unit requirements, see [CSU General Education Breadth Requirements](#) and [IGETC Standards](#).

**Course content should reflect a balance between breadth and depth appropriate for lower-division work.** While it is important for course outlines to reflect the depth of university-level work, proposed courses may be denied if their focus is too narrow. For example, an otherwise acceptable course in literature (IGETC Area 3B Humanities) that focuses on a single book, or in self-development (CSU GE Breadth Area E Lifelong Learning and Self-Development) that focuses only on the first years of childhood, would not provide the breadth expected of GE.

**Variable-topics courses are excluded.** Variable-topics courses (or directed-studies courses) are not acceptable for IGETC or CSU GE Breadth regardless of area, because they change too much from one term (and instructor) to the next.

However, not all the topics in a course have to be specified in detail. For example, a course on Victorian-era English literature doesn't have to name every novel assigned. A course in "Contemporary Controversies in Science" that examined a different controversy every term would be denied.

**Courses may be approved in more than one area.** One course may meet the criteria for more than one GE area. However, ordinarily students will be able to count it toward only one area.

**Courses may be offered in any modality.** The CSU allows online and hybrid course offerings across all areas of CSU GE, as does IGETC provided that the courses have been approved by the CSU and UC during the IGETC course review process.

**Proposed courses shall include at least one textbook.** Reviewers use the representative text as a way to confirm their understanding of course content. It's understood that the instructor in a given section may choose a different text, but the proposed one is still given close attention. It's expected that the structure of the text will be consistent with the course outline. Including additional reading is a good way to demonstrate that multiple points of view will be evaluated, as a means of developing critical thinking.

Textbooks must be dated within seven years of the course submission date or clearly identified in the outline as a "classic text" or "discipline classic" in the course outline. Lab science courses must include a clearly identified lab manual in the course outline.

Texts do not need to be published in hard copy. The UC and CSU welcome the use of online texts and other Open Educational Resources (OER), so long as the resource is a stable, bona fide textbook, and not just a collection of links to lecture notes or other web pages.

### Open Educational Resources (OER)



All CSU and UC campus departments consider the content of textbooks when reviewing articulation proposals from the CCCs. The use of online texts is reviewed by campuses on a case-by-case basis for articulation with CCCs.

Multiple CCC courses already use online texts that are approved for CSU- and UC-transferability, and for articulation with CSU and UC campuses.

Texts, both online and traditional, must be dated within seven years for most course submissions. Older books should be included if they are considered classics in the field and clearly identified as classics in the course outline (e.g., "classic text" or "discipline classic"). Lab science courses must include a lab manual.

**Courses and representative textbooks should be current.** Course outlines should reflect contemporary thinking in the discipline, for example by showing a relatively recent date of approval from the department or campus curriculum committee.



 <b>Textbooks</b> 
At least one text must be published within seven years of the submission date (e.g., published in 2015 for course outlines submitted fall 2022).
Older books should be included if they're considered classics in the field and clearly identified as classics in the course outline (e.g., "classic text" or "discipline classic").
Lab manuals are required and must be explicitly listed on the COR for all lab science courses in IGETC Area 5 and CSU GE Breadth Area B.
"Home-grown" lab manuals, created by CCC faculty, are also acceptable.
Course outlines lacking textbooks or with out-of-date textbooks will be denied for CSU GE Breadth and IGETC.
Physical activity courses in CSU GE Area E may include textbooks but are not required.

**Course outlines should contain enough detail to make a decision possible.** Lists of topics or chapter headings rarely give the reviewers enough information or detail on course content. Among the areas of information submitted, course descriptions are considered the least reliable because descriptions are used to market the course to students. Course objectives, content, methods of instruction, methods of evaluation, and college-level assignments are more informative when detailed and not boilerplate lists. Listed prerequisites are also good indicators of course content, rigor, and disciplinary grounding. Reviewers are asked not to make assumptions based on their own disciplinary background or knowledge of the community college, course topic, or instructor.

**Course outlines should make sense to the reviewer.** Occasionally courses are not approved due to discrepancies in the course outline or has gaps or contradictions in the submitted information.

**Course outlines should be in English**—even when the course is not.



**CSU GE Breadth decisions should be consistent with IGETC.** Because transfer students count on courses that meet IGETC standards to work in the CSU Breadth pattern, reviewers will approve courses in CSU GE Breadth for the sake of consistency.

## **CSU GE BREADTH REQUIREMENTS AND IGETC STANDARDS**

### **CSU GE BREADTH AREAS A and IGETC AREA 1**

#### **Oral Communication (CSU requirement)**

#### **IGETC Standards 2.3**

Instruction approved for fulfillment of the requirement in oral communication is to be designed to emphasize the content of communication as well as the form and should provide an understanding of the psychological basis and the social significance of communication, including how communication operates in various situations. Applicable courses should view communication as the process of human symbolic interaction focusing on the communicative process from the rhetorical perspective: reasoning and advocacy, organization, accuracy; the discovery, critical evaluation and reporting of information; reading and listening effectively as well as speaking and writing. This must include faculty-supervised, faculty-evaluated oral presentations in the presence of others (physically or virtually).

Interpersonal communication and debate courses are not a natural fit in the oral communication area, but a few have incorporated significant faculty-supervised, faculty-evaluated practice in speaking with others; added at least a small component of traditional rhetoric; and won placement in the oral communication area.

The CSU asks that course outlines submitted for CSU GE Breadth Subarea A1 and IGETC Area 1C clearly state how instruction and evaluation are conducted, so that it may be determined that student presentations, no matter what modality the course is offered in, will be made either in front of faculty and other listeners. Rhetorical principles must be covered (*e.g., study of effective communication in formal speeches or social interaction is appropriate*). To qualify in CSU GE Breadth Subarea A1, students must speak their own words, not recite words written by others.

<p style="text-align: center;"><b>CSU GE Breadth Area A</b></p>	<p style="text-align: center;"><b>IGETC Area 1</b></p>
<p><b>A1 Oral Communication</b></p> <ul style="list-style-type: none"> <li>• faculty-supervised, faculty-evaluated oral presentations in the presence of others (<i>physically or virtually</i>)</li> <li>• course outlines should be very specific regarding methods of instruction and methods of evaluation</li> <li>• student presentations will be made either in front of faculty or other listeners, or in online environments</li> <li>• rhetorical principles must be included and specified in the course outline (<i>e.g., example, the study of effective communication in formal speeches or social interaction would be appropriate</i>)</li> <li>• courses must require students to speak their own words, not recite words written by others</li> <li>• courses should provide an understanding of the psychological basis and social significance of communication, including how communication operates in various situations</li> <li>• courses should view communication as the process of human symbolic interaction focusing on the communicative process from the rhetorical perspective: reasoning and advocacy, organization, accuracy; the discovery, critical evaluation and reporting of information; reading and listening effectively as well as speaking and writing</li> <li>• Interpersonal communications and debate courses are not a natural fit</li> </ul>	<p><b>1C Oral Communication</b></p> <ul style="list-style-type: none"> <li>• faculty-supervised, faculty-evaluated oral presentations in the presence of others (<i>physically or virtually</i>)</li> <li>• course outlines should be very specific regarding methods of instruction and methods of evaluation</li> <li>• student presentations will be made either in front of faculty or other listeners, or in online environments</li> <li>• rhetorical principles must be included and specified in the course outline (<i>e.g., example, the study of effective communication in formal speeches or social interaction would be appropriate</i>)</li> <li>• courses must require students to speak their own words, not recite words written by others</li> <li>• courses should provide an understanding of the psychological basis and social significance of communication, including how communication operates in various situations</li> <li>• courses should view communication as the process of human symbolic interaction focusing on the communicative process from the rhetorical perspective: reasoning and advocacy, organization, accuracy; the discovery, critical evaluation and reporting of information; reading and listening effectively as well as speaking and writing</li> <li>• Interpersonal communications and debate courses are not a natural fit</li> </ul>

## **CSU GE BREADTH AREAS A and IGETC AREA 1**

### **English Language Communication and Critical Thinking**

Areas A and 1 emphasize development of students' communication and reasoning skills. These require coursework in "communication in the English language, to include both oral communication and written communication," making them the only areas in the GE patterns that must be taught in English.

#### **Written Communication**

#### **IGETC Standards 2.3**

A first-semester course in English reading and written composition must include substantial instruction and practice in expository essay writing at the college level with a minimum of 5,000 words. Courses should also require a substantial amount of reading of significant literature. Successful completion of the course in reading and written composition (i.e., a course that satisfies English 1A) shall be prerequisite to the course in Critical Thinking/English Composition.

"Stretch" or "intensive" English Composition courses (i.e., blended courses that include both transferable content and remedial content) may be approved for the English Composition Requirement if both/all courses in the "stretch" course sequence are successfully completed with "C" grade (2.0 on a 4.0 scale) or higher (or the equivalent); and the transferable content is comparable to a 'standard' English Composition course, i.e., the course requires a minimum 5,000 words of writing; substantial instruction and practice in expository essay writing at the college level; and substantial amount of reading of significant literature.

English Composition for ESL courses may be approved for the English Composition Requirement if the course content is not solely remedial and is otherwise comparable to a 'standard' English Composition course, i.e., the course requires a minimum 5,000 words of writing; substantial instruction and practice in expository essay writing at the college level; and substantial amount of reading of significant literature.

Reviewers look for evidence of assigned and graded student writing, both in class and as assigned homework. The course must carry an appropriate prerequisite course (or SAT score or placement score), distinguishing it from a basic skills class.

CSU GE Breadth Area A	IGETC Area 1
<p><b>A2 Written Communication</b></p> <ul style="list-style-type: none"> <li>• courses conducted in English</li> <li>• must achieve same objectives as “freshman composition” found in most universities</li> <li>• explore rhetorical principles independent of the application of writing to a specific profession</li> <li>• no minimum number of words; however, number of words should be specified in the course outline</li> </ul>	<p><b>1A Written Communication</b></p> <ul style="list-style-type: none"> <li>• substantial instruction and practice in expository essay writing at the college-level</li> <li>• minimum 5,000 words of writing is required</li> <li>• courses should require substantial amount of reading and significant literature</li> <li>• prerequisite to course in Critical Thinking/English Composition</li> </ul>

**CSU GE BREADTH AREAS A and IGETC AREA 1**

**Critical Thinking**

**CSU General Education Breadth Requirements**

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

**Critical Thinking and Composition**

**IGETC Standards 2.3**

The second semester of English composition adds a requirement of critical thinking taught in a variety of disciplines which provide, as a major component, instruction in the composition of substantial essays and require students to write a sequence of such essays.

Instruction in critical thinking is to be designed to achieve an understanding of the relationship of language to logic, which should lead to the ability to analyze, criticize, and advocate ideas, to reason inductively and deductively, and to identify the assumptions upon which particular conclusions depend. The minimal competence to be expected at the successful conclusion of instruction in critical thinking should be the ability to distinguish fact from judgment, and belief from knowledge; to use elementary inductive and deductive processes; and to recognize common logical errors or fallacies of language and thought.

CSU GE Breadth Area A	IGETC Area 1
<p><b>A3 Critical Thinking</b></p> <ul style="list-style-type: none"> <li>• courses in critical thinking, <u>not</u> writing</li> <li>• no minimum word count</li> <li>• courses include explicit instruction and practice in inductive and deductive reasoning and identification of formal and informal fallacies of language and thought</li> <li>• literary criticism courses are typically not accepted in this area</li> </ul>	<p><b>1B Critical Thinking and Composition</b></p> <ul style="list-style-type: none"> <li>• must have prerequisite of English Composition (course that satisfies English 1A)</li> <li>• written work evaluated for both composition and critical thinking</li> <li>• minimum 5,000 words of writing is required</li> <li>• texts chosen should reflect an awareness of cultural diversity</li> </ul>

## CSU GE BREADTH SUBAREAS B1-B3 and IGETC AREA 5

### Scientific Inquiry, Physical and Biological Sciences

These areas of IGETC and CSU GE Breadth call for three kinds of coursework: physical science lecture, life science lecture, and a lab associated with a lecture.

Courses in these subareas of Areas B and 5 emphasize the perspectives, concepts, principles, theories, and methodologies of the scientific disciplines. Those that have built-in laboratory activity may also qualify for Area B3 and Area 5C, as long as the course outline clearly distinguishes the laboratory activity from the lecture.

Some but not all course outlines submitted for these areas will refer to “the scientific method.” Implicit inclusion of the scientific method is acceptable, especially for courses designed for students majoring in science. Area B and Area 5 courses should enhance students’ appreciation of how scientists do science, not just what scientists have concluded.

### Scientific Inquiry

### CSU General Education Breadth Requirements

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

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

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

## Physical and Biological Sciences

## IGETC Standards 2.3

Courses in physical and biological sciences must emphasize experimental methodology, the testing of hypotheses, and the power of systematic questioning, rather than only the recall of facts. Courses that emphasize the interdependency of the sciences are especially appropriate for non-science majors.

The contemporary world is influenced by science and its applications, and many of the most difficult choices facing individuals and institutions concern the relationship of scientific and technological capability with human values and social goals. To function effectively in such a complex world, students must develop a comprehension of the basic concepts of physical and biological sciences, and a sophisticated understanding of science as a human endeavor, including the limitations as well as the power of scientific inquiry.

## Laboratory Science

## IGETC Standards 2.3

The IGETC physical and biological science area requires a minimum of two courses, at least one of the two must include a laboratory. The intent of the IGETC laboratory science requirement is that students take at least one physical or biological science course incorporating a laboratory component. Since the experimental methodology and hypothesis testing taught in a lab builds on the principles presented in the lecture portion of the course, the two must be related. Therefore, the laboratory must correspond to one of the lecture courses taken to fulfill this IGETC requirement. A student cannot use lecture courses in two subjects and a laboratory in a third subject. It is expected that the lecture course is a prerequisite or co-requisite of the laboratory course. Lecture and lab courses may have separate course numbers. Lab science courses must include a clearly identified lab manual in the course outline.

## Unit Requirement for Laboratory Science Courses

## IGETC Standards 2.3



Three semester or four quarter unit laboratory science courses may be used on IGETC to clear the laboratory science requirement as long as the minimum unit value is met for this area (*7 semester or 9 quarter units*). Stand-alone lab courses which have a prerequisite or co-requisite of the corresponding lecture course must be a minimum of 1 semester/quarter unit.

## Laboratory Activity

Courses meeting the requirements of this subarea must be associated with a lecture component, either built into the laboratory section itself or connected as a co-requisite or prerequisite. In the course outline, it is especially important for colleges to *clearly delineate laboratory activity from the lecture topics*. A simple list of topics to be covered in the lab sections is seldom enough to tell reviewers whether the activity warrants the additional lab approval. Reviewers rely in particular on the choice of textbook, checking that it is appropriate for a course with lab activities. Lab science courses must include a *clearly identified lab manual*.

Stand-alone lab courses are designated B3 or 5C only, and *only* when associated with a lecture course as either a prerequisite or co-requisite.



 <b>Lab Manuals</b> 
Lab manuals are required, and must be explicitly listed on the COR, for all courses in IGETC Area 5C and CSU GE Breadth Area B3.
“Home-grown” lab manuals, created by CCC faculty, are also acceptable. Lab manuals are required and must be explicitly identified in the COR.

CSU GE Breadth Area B	IGETC Area 5
<p><b>B1-B2 Physical and Life Sciences</b></p> <ul style="list-style-type: none"> <li>students develop knowledge of scientific theories, concepts, and data about both living and non-living systems</li> <li>courses emphasize the perspectives, concepts, principles, theories, and methodologies of the scientific disciplines</li> <li>students will achieve an understanding and appreciation of scientific principles and the scientific method, potential limits of scientific endeavors, and the value systems and ethics associated with human inquiry</li> </ul>	<p><b>5A-5B Physical and Biological Sciences</b></p> <ul style="list-style-type: none"> <li>one course in Physical Science (5A), one in Biological Science (5B), with at least one incorporating a laboratory (5C)</li> <li>emphasize experimental methodology, testing of hypotheses, and power of systematic questioning, rather than only recall of facts</li> <li>focus on teaching basic concepts of physical and biological sciences</li> <li>sophisticated understanding of science as a human endeavor, including limitations and power of scientific inquiry</li> </ul>

<ul style="list-style-type: none"> <li>• courses should enhance students' appreciation of how scientist do science, not just what scientists have concluded</li> </ul>	<ul style="list-style-type: none"> <li>• emphasize major concepts of the discipline, including biochemical and physiological principles</li> </ul>
<p><b>B3 Laboratory Activity (lab course)</b></p> <ul style="list-style-type: none"> <li>• lab activity must be associated with a lecture component, or stand-alone laboratory course connected as a co-requisite or prerequisite</li> <li>• course outline clearly distinguishes the laboratory activity from the lecture component</li> <li>• lab manuals are required, and must be explicitly listed on the course outline</li> </ul>	<p><b>5C Laboratory Science (lab course)</b></p> <ul style="list-style-type: none"> <li>• must correspond to one of the lecture courses</li> <li>• lecture course is a prerequisite or co-requisite of the laboratory course</li> <li>• lecture and lab courses may have separate course numbers</li> <li>• lab manuals are required, and must be explicitly listed on the course outline</li> </ul>

### Scientific Inquiry, Physical and Biological Sciences

This distinction of learning not just the conclusions of scientists but also *how science is practiced* is the key to making review decisions in a few special cases:

- **Multi-disciplinary and interdisciplinary science courses.** Some community colleges have designed courses to meet California's credentialing standards for prospective elementary school teachers, who will need to know something about geology, astronomy, physics and chemistry. These "do-it-all" courses may be acceptable, *if they address science as a mode of intellectual inquiry and emphasize the major concepts of the discipline.*

*Organic chemistry* courses may also strike reviewers as interdisciplinary, but are ordinarily categorized in Physical Science Subareas B1 and 5A, where the subject is frequently housed and taught.

- **Physical anthropology courses.** Depending on the emphasis, a course in physical anthropology may belong with other biological sciences in Subareas B2 and 5B.
- **Physical geography courses.** These are almost always accepted in Subarea B1 and 5A. Other kinds of geography course are closer to the Social Sciences and Social and Behavioral Sciences and are instead approved in Areas D and 4.
- **Lower-division major preparation courses.** These may work unless they are *too narrow*; the question is whether students will achieve the "science literacy" expected of educated citizens in any profession.
- **Lab manuals.** Lab manuals are required, and must be explicitly listed on the COR, for all courses in IGETC Area 5C and CSU GE Breadth Subarea B3.



***In defining “science literacy”*** for an educated populace, science faculty from across the CSU agreed to this definition and course-scoring rubric, which reviewers of community college courses may find helpful:

A student who achieves science literacy through a course that satisfies a general education science requirement must master literacy in understanding both:

(a) science as the system of reasoning—the acquisition of testable knowledge of the physical world, including explanations of the phenomena and

(b) the minimal foundational concepts and content of the science discipline(s) addressed by the course.

This rubric addresses “a”:

Unacceptable	Minimally acceptable	Very Acceptable	Ideal
Item 13 only or Item 13 plus omission of any Items 1-7	Items 1-7, plus Item 13	Items 1-10 plus Item 13	Items 1-13

**Learning Outcomes for Science Literacy in Science as a Framework of Reasoning in an Introductory Course**

1. Student can articulate in her/his own words a reasonable definition for what constitutes science.
2. Student can describe, using at least two specific examples, how science literacy is important in everyday life to an educated person.
3. Student can explain why the attribute of doubt has value in science.
4. Student can explain how scientists select which among several competing working hypotheses best explains a physical phenomenon.
5. Student can explain how "theory" as used and understood in science differs from "theory "as commonly used and understood by the general public.
6. Student can explain why peer review generally improves our quality of knowing within science.
7. Student can explain how science uses the method of reproducible experiments to understand and explain the physical world.
8. Student can name one assumption that underlies all science.
9. Student can provide two examples of science and two of technology and use these to explain a central concept by which one can distinguish between science and technology.
10. Student can cite a single major theory from one of the science disciplines and explain its historical development.
11. Student can explain and provide an example of modeling as used in science.
12. Student can explain why awareness of ethics becomes increasingly important to a society becoming increasingly advanced in science.
13. Student can meet the minimal learning outcomes specified by the discipline that address the major ideas, concepts and content of the science discipline. *The arbiter of "specified by discipline" might range from locally at the scale of a department to internationally as specified by the larger profession.*

**CSU GE BREADTH SUBAREA B4 and IGETC AREA 2**

**Mathematics/Quantitative Reasoning, Mathematical Concepts and Quantitative Reasoning**

**Mathematics/Quantitative Reasoning Requirements**

**CSU General Education Breadth**

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

**Mathematical Concepts and Quantitative Reasoning**

**IGETC Standards 2.3**

Area 2A Mathematical concepts and Quantitative Reasoning may be met by a baccalaureate course in Mathematics, Statistics, or other Quantitative Reasoning Course. Courses outside the discipline of math using the application of statistics may be used to fulfill this requirement. Historically, the prerequisite for 2A courses was intermediate algebra or equivalent.\* Currently, some courses use intermediate algebra as a prerequisite but others include co-requisite content or build the prerequisite skill development into the course itself.

In addition, courses should have their primary purpose and content focused on appropriate mathematics/quantitative reasoning. An appropriate course in statistics must emphasize the mathematical basis of statistics, probability theory and estimation, application and interpretation, uses and misuses, and the analysis and criticism of statistical arguments in public discourse.

As knowledge relevant to public and private decision making is expressed frequently in quantitative terms; we are routinely confronted with information requiring quantitative analysis, calculation, and the ability to use and criticize quantitative arguments. In addition, many disciplines require a sound foundation in mathematical concepts. The requirement in Mathematical Concepts and Quantitative Reasoning is designed to help prepare students to respond effectively to these challenges.

Courses approved to fulfill this requirement must focus on quantitative analysis and the ability to use and criticize quantitative arguments. Symbolic Logic, Computer Programming, Mathematics for Teachers and survey courses such as Math in Society, were deemed unacceptable to fulfill the Mathematical Concepts

and Quantitative Reasoning requirement; math survey courses may fulfill this requirement if the focus is on mathematical concepts and quantitative analysis.

“Stretch” Mathematics or Statistics courses (i.e., blended courses that include both transferable content and remedial content) may be approved only if both/all courses in the “stretch” course sequence are successfully completed with “C” grade or higher or the equivalent\* (2.0 on a 4.0 scale) and the transferable course content is otherwise comparable to a ‘standard’ Mathematics or Statistics course.

\*The equivalent should cover the content and mathematical practices of the Common Core State Standards for Mathematics, or CCSSM. Statistics course prerequisites/co-requisites should be consistent with CCSSM math standards and teach the skills and knowledge without which the student is highly unlikely to succeed in college-level statistics. For details see the UCTCA Guidelines for Mathematics and Statistics: <https://www.ucop.edu/transfer-articulation/transferable-course-agreements/tca-policy/regulations-by-subject-area.html>

CSU GE Breadth Area B	IGETC Area 2
<p><b>B4 Mathematics/Quantitative Reasoning</b></p> <ul style="list-style-type: none"> <li>• courses shall include a prerequisite reflective only of skills and knowledge required in the course</li> <li>• courses must have as their primary purpose for students to demonstrate the abilities to reason quantitatively, practice computational skills, and explain and apply mathematical or quantitative reasoning concepts to solve problems</li> <li>• may include computer science, personal finance, statistics or discipline-based mathematics or quantitative reasoning courses</li> </ul>	<p><b>2A Mathematical Concepts and Quantitative Reasoning</b></p> <ul style="list-style-type: none"> <li>• fulfilled by completion of a Mathematics, Statistics, or other Quantitative Reasoning course</li> <li>• prerequisite for 2A was intermediate algebra or equivalent.* Currently, some courses use intermediate algebra as a prerequisite or co-requisite content or build the prerequisite skill development into the course</li> <li>• courses should have their primary purpose and content focused on appropriate mathematics/quantitative reasoning</li> <li>• courses outside the discipline of math using the application of statistics may be used to fulfill this requirement</li> <li>• appropriate course in statistics must emphasize the mathematical basis of statistics, probability theory and estimation, application and interpretation, uses and misuses, and the analysis and criticism of statistical arguments in public discourse</li> </ul>

	<ul style="list-style-type: none"><li>• courses approved to fulfill this requirement must focus on quantitative analysis and the ability to use and criticize quantitative arguments</li></ul>
--	--

Given the ubiquity of quantitative and statistical information that the public encounters, successful completion of a mathematics/quantitative reasoning course is an important driver of equitable outcomes and social mobility. The requirement in Mathematical Concepts and Quantitative Reasoning is designed to support students in their pursuit of these goals. Courses approved to fulfill this requirement must have as their primary purposes the development of a general understanding of how practitioners and scholars build mathematical models and solve problems using quantitative methods, and the development of quantitative skills leading to a proficient and fluent ability to reason quantitatively in their subsequent courses and after graduation in the various contexts defined by personal, civic, and professional responsibilities.

### **CSU GE Breadth Subarea B4 Mathematics/Quantitative Reasoning (QR) Guidelines and Principles<sup>1</sup>**

Courses submitted for CSU GE Breadth Subarea B4 approval shall ask students to:

- interpret and communicate quantitative information and mathematical and statistical concepts using language appropriate to the context and intended audience;
- make sense of problems, develop strategies to find solutions, and persevere in solving them;
- reason, model, draw conclusions, and make decisions with quantitative information about problems arising in everyday life, society, and the workplace;
- construct, critique, and evaluate quantitative arguments that utilize mathematical, statistical, and quantitative information;
- use appropriate tools strategically.<sup>2</sup>

Statistics courses, in particular, shall ask students to:

- produce and interpret graphical displays and numerical summaries;
- recognize questions for which the investigative process of statistics is useful and answer questions using that process
- have a conceptual and computational understanding of descriptive and basic inferential statistical methods;
- recognize and explain the roles of variability in statistics and randomness in designing studies and drawing conclusions;

---

<sup>1</sup> These guidelines and principles align with the CSU Math Council, CSU GE Area B4 Mathematics/Quantitative Reasoning Course Guidelines and Principles, approved 4/10/2020.

<sup>2</sup> Drawn from Dana Center QR Learning Outcomes, Common Core Standards for Mathematical Practice, Committee on the Undergraduate Program in Mathematics Curriculum Guide 2004

- demonstrate an understanding of concepts useful in building statistical literacy such as correlation is not causation and the difference between statistical significance and practical importance.<sup>3</sup>

Courses that do not make significant use of quantitative reasoning are excluded from Subarea B4. These include:

- courses in the history of mathematics
- computer programming courses
- symbolic logic courses

**Computer Science** courses that go beyond programming concepts, methodologies, and fundamental techniques to meaningfully address quantitative information may be acceptable.

**Personal Finance** courses require a mathematics prerequisite reflective only of skills and knowledge required in the course and/or appropriate mathematics skills advisory.

**Quantitative Reasoning** courses (beginning with the fall 2018 semester) without a stated prerequisite of intermediate algebra or equivalent may be approved for CSU GE Breadth but may not qualify for IGETC.

**Survey** courses are excluded from IGETC but are acceptable for CSU GE Breadth if they meet the expectations outlined in this document for CSU GE B4 courses.

**For general QR courses such as Math for Liberal Arts, Mathematics for Practical Purposes, Introduction to Mathematical Modelling, and more targeted introductory courses such as Personal Finance**, students should be proficient in a broad set of skills and knowledge from 8th grade mathematics, geometry, and Algebra I (or equivalent).

Students enrolling in these courses should be able to:<sup>4</sup>

- demonstrate procedural fluency with real number arithmetic operations and using those operations to represent real-world scenarios and to solve stated problems;
- evaluate with the use of technology expressions that involve arithmetic with signed numbers, square roots, squaring, exponents, factorials, and summation notation;
- demonstrate number sense, including dimensional analysis and conversions between fractions, decimals, and percentages;
- represent numbers, intervals, and inequalities on the number line;
- make estimates and predications, understand when approximations are appropriate and when exact calculations are necessary;

---

<sup>3</sup> Drawn from UC transfer regulations for courses in specific subject areas, Guidelines for Assessment and Instruction in Statistics Education (GAISE) College Report 2016, CID Descriptor for Math 110

<sup>4</sup> Drawn from Dana Center Quantitative Reasoning Course, Statement on Competencies in Mathematics Expected of Entering College Students, California Common Core State Standards: Mathematics

- evaluate, and apply linear, quadratic, and absolute value expressions and formulas;
- use information about functions and features of graphs to model relationships between quantities (positive, negative, increasing, decreasing, etc.);
- solve, graph, and interpret linear equations and inequalities; solve problems modeled by linear equations;
- demonstrate an understanding of displays of data such as tables, bar charts, histograms, pie charts, and line graphs;
- use data to calculate and interpret median, and mean;
- solve application problems applying measurement and geometry topics such as distance, area, perimeter, and volume

Courses in *elementary statistics* may be offered by multiple departments, including business, economics, mathematics, social science, and science. Students should be proficient in a broad set of skills and knowledge from 8th grade mathematics, geometry, and Algebra I (or equivalent). Students enrolling in these courses should be able to:<sup>5</sup>

- work with numerical information:
  - ordering decimals, order of operations, operations with fractions and percentages,
  - converting fractions to decimals and percentages,
  - representing numbers, intervals, and inequalities on the number line.
- evaluate expressions with the use of technology that involve arithmetic with signed numbers, square roots, squaring, exponents, factorials, and summation notation;
- solve simple linear equations in one variable;
- model linear models;
  - interpreting slope and intercept;
  - graphing a line and points;
  - making predictions;
  - calculating vertical deviation of a point from the line;
- approximate areas of specified regions given the area under a curve or histogram;
  - extracting information from graphs and tables;
- understanding set notation and diagrams;
  - finding the complement of a set;
  - finding the union and intersection of two sets.

For courses that require stronger algebra skills, such as finite math, college algebra, or precalculus, the prerequisite skills and knowledge will also include topics from

---

<sup>5</sup> Drawn from UC Requirements for Transferable Courses and Dana Center Math Prerequisites for Success in Introductory Statistics

Algebra II. In addition to the topics listed for general QR courses, students enrolling in these courses should be able to:<sup>6</sup>

- Evaluate and apply polynomial, rational, exponential, power, rational, and trigonometric expressions and formulas;
- solve, graph, and interpret quadratic equations; solve two linear equations in two unknowns; solve problems modeled by quadratic equations;
- perform arithmetic operations on polynomials and rational expressions; apply factoring techniques to simplify expressions and locate roots;
- understand the relationship between the multiple representations (variable, graph, data, words) of various functions (quadratic, power, exponential, rational, trigonometric functions);
- find inverse functions;
- create and interpret mathematical models, by building functions that describe a given situation;
- use the concepts of congruence, similarity, and symmetry to demonstrate relationships in geometric figures such as lines, triangles, circles, quadrilaterals, and other polygons;
- use trigonometric ratios to solve problems involving right triangles;
- understand the graphs and properties of trigonometric functions;
- analyze data to calculate center (mean and median), and measures of spread (standard deviation and interquartile range);
- describing data, interpreting summaries of data, and making predictions based on the data;
- demonstrate a basic understanding of inductive and deductive reasoning, hypotheses and conclusions.

Across all CCC courses that are approved for CSU GE Breadth (including Subarea B4), the course content and outcomes must be baccalaureate level, requiring as prerequisite the skills and knowledge developed in high school that are needed for the given course.

*Note: With the issuance of CSU EO 1110 Revised, CSU students will no longer be required to complete remedial courses but will enroll in courses with support as indicated by multiple measures. Similarly, we leave it to the individual CCC to determine how students who have not completed the prerequisites to Subarea B4 courses will be supported to succeed (e.g., traditional remedial courses, co-requisite, stretch, or pathways models).*

**CSU GE Breadth:** Math courses developed specifically for students preparing to teach elementary school are *excluded from IGETC but acceptable in CSU GE Breadth*. CSU math faculty have asked reviewers to check for inclusion of specific elements of math instruction before granting approval. (For Subarea B4 requirements, see Approving Math Courses for Elementary School Teachers on page 31.)

---

<sup>6</sup> Drawn from Statement on Competencies in Mathematics Expected of Entering College Students, California Common Core State Standards: Mathematics, DCMP Reasoning with Functions II

## Approving Math Courses for Elementary School Teachers (CSU GE Breadth pattern only)

Math courses designed as part of a teacher preparation or liberal studies curriculum must meet specific criteria to qualify for Subarea B4 of CSU GE Breadth. Faculty have asked that such courses include *all* of these elements listed in the March 2013 posting of the [C-ID Math 120](#), “Mathematical Concepts for Elementary School Teachers - Number Systems.”

**Course Topics:** In conformity with ESM standards, topics must include, but are not limited to:

1. Numeration systems: history, Hindu-Arabic numeration system, and place value systems;
2. Integers: structure and basic properties, computational algorithms;
3. Basic number theory: divisibility, prime and composite numbers, prime factorization, fundamental theorem of arithmetic, least common multiple and greatest common divisor;
4. Rational numbers: structure and properties, ratio and proportion;
5. Real numbers: structure and basic properties, arithmetic operations, rational and irrational numbers, decimal representation, number line representation;
6. Patterns, problem solving, communication, connections, modeling, reasoning, and representation; and
7. National and state curriculum standards for elementary school math including Common Core State Standards.

**Student Learning Outcomes:** In conformity with ESM standards, course outcomes must include, but are not limited to:

1. Perform calculations with place value systems;
2. Evaluate the equivalence of numeric algorithms and explain the advantages and disadvantages of equivalent algorithms in different circumstances;
3. Apply algorithms from number theory to determine divisibility in a variety of settings;
4. Analyze least common multiples and greatest common divisors and their role in standard algorithms;
5. Explain the concept of rational numbers, using both ratio and decimal representations; analyze the arithmetic algorithms for these two representations; and justify their equivalence;
6. Analyze the structure and properties of whole, rational, and real number systems; define the concept of rational and irrational numbers, including their decimal representation; and illustrate the use of a number line representation;
7. Develop and reinforce conceptual understanding of mathematical topics through the use of patterns, problem solving, communication, connections, modeling, reasoning, and representation; and
8. Develop activities implementing curriculum standards.



## **CSU GE BREADTH AREA C and IGETC AREA 3**

### **Arts and Humanities**

### **CSU General Education Breadth Requirements**

Across the disciplines in Area C coursework, students will cultivate intellect, imagination, sensibility and sensitivity. Students will respond subjectively as well as objectively to aesthetic experiences and will develop an understanding of the integrity of both emotional and intellectual responses. Students will cultivate and refine their affective, cognitive, and physical faculties through studying works of the human imagination. Activities may include participation in individual aesthetic, creative experiences; however, Area C excludes courses that exclusively emphasize skills development.

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

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

### **Arts and Humanities**

### **IGETC Standards 2.3**

#### **Arts**

Courses that have as their major emphasis the integration of history, theory, aesthetics, and criticism. Performance and studio classes may be credited toward satisfaction of this subject area if their major emphasis is the integration of history, theory, and criticism (e.g., Dance History in Cultural Context, Film Art, History of Architecture, History of Modern Art, Multi-Cultural Theatre, Music History and Literature, The Jazz Experience).

#### **Humanities**

Acceptable Humanities courses are those that encourage students to analyze and appreciate works of philosophical, historical, literary, aesthetic and cultural importance. Advanced foreign language and ESL courses (which do not have a principal focus on skills acquisition) may be approved if they include substantial literary or cultural aspects. Theater and film courses may be approved if taught with emphasis on substantial historical, literary, or cultural aspects. Advanced English Composition and English Composition for ESL courses may be approved if they include significant literary and humanities content and/or a methodological, epistemological, or theoretical focus.

CSU GE Breadth Area C	IGETC Area 3
<p><b>C1 Arts: (e.g., Arts, Cinema, Dance, Music, Theatre)</b></p> <ul style="list-style-type: none"> <li>• Arts include the visual arts, architecture, design, music, dance, theatre, and film</li> <li>• courses should help students make connections between the arts and cultural and social issues, and serving as an introduction to the arts as an aesthetic and creative endeavor</li> <li>• skills development permitted, but only when it contributes to a broader contextual understanding of the arts</li> <li>• courses that exclusively emphasize skills development are not appropriate for general education</li> <li>• acceptable courses must have a predominant focus on lecture vs. skills development and practical activities</li> </ul>	<p><b>3A Arts:</b></p> <ul style="list-style-type: none"> <li>• have as their major emphasis the integration of history, theory, aesthetics, and criticism</li> <li>• develop and advance historical understanding of major civilizations and cultures, both Western and non-Western</li> <li>• recognize contributions to knowledge, civilization, and society by men and women, and members of various ethnic or cultural groups</li> <li>• performance and studio classes may satisfy this area if their major emphasis is the integration of history, theory, and criticism</li> </ul>

CSU GE Breadth Area C	IGETC Area 3
<p><b>C2 Humanities: (e.g., Literature, Philosophy, Languages Other than English)</b></p> <ul style="list-style-type: none"> <li>• students learn to analyze and appreciate works of philosophical and cultural importance</li> <li>• course serves as a pathway to a broader understanding of the human condition</li> <li>• course will help students confidently understand and articulate their own subjective intellectual experiences</li> <li>• creative writing courses if they include significant attention to reading and analysis of works of literature</li> <li>• geography, history, and art courses (e.g., art history) if outline indicates a strong cultural content and exploration of subjective human experience</li> <li>• language courses should evoke a sympathetic response to the acquired culture</li> </ul>	<p><b>3B Humanities:</b></p> <ul style="list-style-type: none"> <li>• encourage students to analyze and appreciate works of philosophical, historical, literary, aesthetic and cultural importance</li> <li>• advanced foreign language courses may be approved if they include substantial literary or cultural aspects</li> <li>• theater and film courses may be approved if taught with emphasis on substantial historical, literary, or cultural aspects</li> <li>• Advanced English Composition and English Composition for ESL courses may be approved if they include significant literary and humanities content and/or a methodological, epistemological, or theoretical focus.</li> </ul>

<ul style="list-style-type: none"> <li>• <i>English as a Second Language</i> courses may be advanced enough to meet the objectives of Humanities, encouraging students to analyze and appreciate works of philosophical and cultural importance</li> <li>• courses in <i>languages other than English</i> that contain a substantial cultural component; not focused solely on skills acquisition</li> </ul>	
--	--

### Arts for General Education

***Studio and performance*** courses that develop technique or skills alone do not meet the standards established for this area. Skills development is permitted, but only when it contributes to a broader contextual understanding of the arts, such as helping students make connections between the arts and cultural and social issues and serving as an introduction to the arts as an aesthetic and creative endeavor. Reviewers look for more time spent in lecture than in lab skills and activities. (*Audition-based courses will not be approved for GE.*)

A note to faculty who create courses in this area: beware of emulating arts courses with existing approvals in ASSIST. Approval for arts courses in particular is often “grandfathered in” from years before 1993, when the current review process was put in place. Skills-heavy courses are unlikely candidates for GE under the current procedure and criteria. Skills courses are not appropriate GE approval and are frequently denied.

In 2011, CSU faculty addressed the problem of these grandfathered courses in Subarea C1 by removing those offered below two units. In the other areas of GE Breadth, courses of any unit value may still appear grandfathered in.

To determine the degree of emphasis on skills acquisition in course submissions, reviewers look at the time spent in lecture vs. activity (1.5 lecture hours vs. 4.5 lab hours per week more than tips the scale to activity-based). For example, community college courses in design and color often carry a heavy lab component to prepare students for immediate employment; this is sound professional preparation but tips the course away from the goals of GE.

On the other hand, a noteworthy course in ceramics did qualify. The course outline took a historic approach to the study of ceramics, much as an art appreciation course would. The students created ceramic works only as a reinforcement of the historic/cultural style (e.g., the students produced a ceramic piece in the Japanese raku style after studying the historic and cultural influence of raku).

### **Special cases in Arts and Humanities:**

*Art for Teachers* courses are frequently denied for GE, because they emphasize pre-professional training for educators rather than great works of the human imagination.

*Film studies* courses (as opposed to film production) may qualify for either Arts or Humanities, depending on the focus of the course. Sometimes film is used as a means to study a particular time or culture, warranting a Humanities designation appropriate. When the focus is instead on film as a medium of artistic expression, the more appropriate placement is Arts.

*Music Theory* courses are primarily skills development courses (notation and ear training) and are ordinarily excluded, even if they include some classical compositions.

*Photography* courses may qualify for either Arts or Humanities, depending on the focus of the course. Sometimes the same distinction applies (as in film studies) to courses in still photography rather than motion pictures. If the medium is merely the means to examine the human condition, the approval will be in the Humanities area; if the medium itself is the main subject of study, then the approval will be in Arts.

### **Humanities for General Education**

These criteria are key to determining the suitability of courses in a range of disciplines:

*Language* courses should do more than impart vocabulary and rules of grammar; they should use the second language to evoke a sympathetic response to the acquired culture, to help students understand the “other” in the first person. Courses must include more attention to the studied culture and less on topics identifying holidays, foods, and lifestyle.

For most language courses in IGETC, the course should be equivalent to at least the third year of high school to meet the criteria for Area 3B Humanities. Another useful indicator of whether the course exceeds that threshold is in its prerequisite: courses approved for Area 6A LOTE under the IGETC pattern are intended to achieve that minimum proficiency level, and so if they’re listed as prerequisite to a course submitted for Area C2 Humanities in CSU GE Breadth or Area 3B Humanities in IGETC, then the more advanced course probably has a strong enough cultural component to qualify. The course outline should include this cultural component content.

The prerequisite for language courses that satisfy Humanities may be:

- a community college course that satisfies Area 6A of IGETC
- two years of high school study of the language
- some other measure of proficiency

***English as a Second Language*** courses must be advanced enough to meet the objectives of CSU GE Area C2 Humanities. Advanced ESL courses will have a substantial cultural component to qualify since humanities courses encourage students to analyze and appreciate works of philosophical and cultural importance. ESL courses may also include advanced-level proficiency development. However, courses that focus primarily on language proficiency development are not appropriate for Area C2 Humanities.

***Advanced English Composition and English Composition for ESL*** courses proposed for IGETC Area 3B Humanities may be approved if they include significant literary and humanities content and/or a methodological, epistemological, or theoretical focus.

***Art History*** courses are typically reviewed in Arts and Humanities, not in Social Sciences or Social and Behavioral Sciences Areas D or 4.

***Courses in geography, history, and art*** may satisfy Area 3B Humanities if the outline indicates a strong cultural content and an exploration of subjective human experience.

***Courses in linguistics*** may also be a close call between Humanities and Social Sciences. In addition to reviewing the content of the course outline, reviewers may refer to the department prefix (typically Anthropology or English) to suggest which mode of inquiry is dominant.

***Creative writing*** courses are acceptable for CSU GE Breadth Area C2 Humanities only if they include significant focus on reading and analysis of works of literature. Students should be learning to “read as writers” (focusing on how creative writing is developed, not just how readers interpret what is written), which is a different process than literary criticism.

***History*** courses, depending on their dominant mode of inquiry, may be categorized in CSU GE Breadth Area C2 Humanities or IGETC Area 3B Humanities, Areas D or 4 Social Sciences, or both.

***Literature*** courses may be disallowed because they are too narrow. A course in a single novel or literary movement (e.g., postmodern American fiction) is probably more suitable for upper-division work, since it may not incorporate literary analysis from a variety of critical perspectives.

**Logic** courses are generally excluded from Area C2 and Area 3B Humanities. Such courses are designed primarily to develop students’ reasoning technique and skills, not their appreciation of “great works of the human imagination.” Logic courses may be accepted, however, if the focus is not solely on technique but includes the role of logic in humanities disciplines.

**Mass communication or mass media** courses are seldom accepted in Area 3B or Area C2 Humanities. (However, courses that study the interaction of mass communication and society are often appropriate for social science.)

### Humanities and Social and Behavioral Sciences

Between them, these two areas cover Humanities and Social Sciences – the broad middle ground of what most educated people consider liberal learning. Taken together, these two areas have accounted for more than half of all course outlines submitted for GE credit in California. To ensure the breadth of learning expected of a baccalaureate degree, it is important that courses in these two areas be distinguished from each other:

Study in Humanities	Study in the Social Sciences
A personal and singular focus on the human condition: its limits, potential, and creative expressions	Uses social scientific techniques of experimentation and empirical evidence to explore human experiences
Relies on critical analysis of specific texts or works to support its claims	Focus on methodologies, examination of society, social scientific techniques
A pathway to a broader understanding of the human condition	Use empirical evidence to explore human experiences in civilizations, groups of people, social dynamics
Analysis and appreciation of works of philosophical, historical, literary, aesthetics, and cultural importance	Includes theoretical perspectives, methods of the discipline including quantitative and qualitative analysis

Although the areas are distinct, some disciplines such as Ethnic Studies may comprise significant coursework in both kinds of inquiry, and so count in both areas of general education.

The CSU and UC systems take their cues from the discipline and may categorize history in the humanities. However, if participating institutions submit a history course for approval in Area D/Area 4 Social Sciences and the course outline supports the designation, then that is where the course is approved.

History is among the hardest disciplines to categorize, by historians’ own admission:

Since the 1980s, the discipline of history, which has always straddled the humanities and social sciences, has become more identified with the humanities.

Indeed, the American Historical Association has recently urged the National Research Council (NRC) to classify history with the humanities in its periodic ranking of departments. For the institutional purposes that motivate the NRC rankings (and the methodologies used for them), the formal shift in category makes sense. But this change of institutional location in the national organization of research should not be understood as an intellectual abandonment of the discipline's historical association with the social sciences. History should value and maintain its Janus-faced position in the world of scholarship—looking to both the humanities and the social sciences.

-- *The Education of Historians for the Twenty-First Century*  
American Historical Association, 2004

## **CSU GE Breadth Area D and IGETC Area 4**

### **Social Sciences and Social and Behavioral Sciences**

#### **Social Sciences**

#### **CSU General Education Breadth Requirements**

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

#### **Social and Behavioral Sciences**

#### **IGETC Standards 2.3**

The pattern of coursework completed shall ensure opportunities for students to develop understanding of the perspectives and research methods of the social and behavioral sciences. Problems and issues in these areas should be examined in their contemporary, historical, and geographical settings. Students who have completed this requirement shall have been exposed to a pattern of coursework designed to help them gain an understanding and appreciation of the contributions and perspectives of men, women and of ethnic and other minorities and a comparative perspective on both Western and non-Western societies. The material should be presented from a theoretical point of view and focus on core concepts and methods of the discipline rather than on personal, practical, or applied aspects.

<p style="text-align: center;"><b>CSU GE Breadth Area D</b></p>	<p style="text-align: center;"><b>IGETC Area 4</b></p>
<p><b>Social Sciences</b></p> <ul style="list-style-type: none"> <li>• students explore the principles, methodologies, value systems, and ethics employed in social scientific inquiry</li> <li>• students learn how to practice social science, and not just understand what social scientists have concluded</li> <li>• course leads to a broad understanding of social science, and not just the discipline within it</li> <li>• students are learning more than pre-professional skills</li> <li>• at the extreme, courses proposed for GE social science can look too much like training for careers in criminal justice or social work, with learning objectives different from those of GE</li> </ul>	<p><b>Social and Behavioral Sciences</b></p> <ul style="list-style-type: none"> <li>• students develop understanding of the perspectives and research methods of the social and behavioral sciences</li> <li>• problems and issues examined in contemporary, historical, and geographical settings</li> <li>• comparative perspective on both Western and non-Western societies</li> <li>• material presented from a theoretical point of view and focuses on core concepts and methods of the discipline rather than on personal, practical, or applied aspects</li> <li>• students gain basic knowledge of the cultural and social organizations in which they exist as well as the behavior and social organization of their human societies</li> <li>• study of perspectives that have been made by men and women, and members of various ethnic or cultural groups</li> <li>• Administration of Justice courses accepted if focus is on core concepts of social and behavioral sciences</li> </ul>

*Special cases in Social and Behavioral Science Research Methodology:*

A growing number of CCCs propose courses such as “Research Methods in Psychology” or “Research Methods in Sociology” to satisfy both GE transfer requirements in social science, and major requirements for ADTs. Reviewers have found that for such courses to meet GE criteria, the challenge is often to “rise above technique,” to develop the student’s analytical capacity and understanding of social science in ways that would be useful to any educated citizen and transferable to many walks of life in addition to those of professional social scientists. Such courses often cover disciplinary fundamentals in addition to statistical techniques, *but unless the course outline states these both explicitly, it is unlikely to be approved for Area 4 or D.*



## **CSU GE BREADTH AREA E (CSU requirement)**

Courses that meet the learning objectives of Area E draw on findings from the biological, behavioral, and social sciences to study humans from psychological, sociological, and physiological perspectives.

### **Lifelong Learning and Self-Development Requirements**

### **CSU General Education Breadth**

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

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

**There is no IGETC Counterpart to Area E.** Students using the IGETC pattern to meet their lower-division GE before transfer to the CSU are exempt from this systemwide requirement.

### **Military Service Credit**

### **Credit for Prior Learning**

Credit for Prior Learning Policy requires CSU campuses to evaluate prior learning, provide credit where appropriate, and shorten the time to academic objective accordingly. Completion of basic military training (boot camp) may be used to satisfy Area E in the university's general education requirements.

Completed military courses and the schools at which the work was completed must be documented on the veteran's Joint Services Transcripts (JST) or Community College of the Air Force (CCAF) transcripts. All CSU campuses have elected to honor CSU GE Breadth transfer certifications that clear Area E Lifelong Learning and Self-Development for completion of basic training as indicated on a JST or CCAF transcript.

**CSU GE Breadth  
Area E**

**Lifelong Learning and Self-Development**

With the exception of courses in physical activity (detailed below), reviewers expect courses in Area E to include three kinds of inquiry: **sociological, physiological, and psychological**.

- Courses should address all three areas for *more than a few years of a human lifespan*. The course content does not need to extend from cradle to grave, but study should include more than the collegiate years, early childhood experience, or the octogenarian experience, in order to provide the breadth expected of general education.
- Courses that focus on a single learning skill (e.g., library use, computer literacy, college skills, or first aid training) are not appropriate for GE.

**Sociological:**

- In this context, the relationships between an individual and broader society.

**Physiological:**

- The human body as an integrated organism with systemic functions such as movement, nutrition, growth, reproduction, and aging.

**Psychological:**

- The study of the mental processes that create consciousness, behavior, emotions, and intelligence.

*Note: Courses in personal finance are no longer considered for CSU Area E. Personal Finance courses that are currently approved for Area E had their CSU Breadth GE status removed effective fall 2018. CCCs may submit revised personal finance courses for Subarea B4 Mathematics/Quantitative Reasoning consideration during the yearly CSU GE Breadth review period.*

**Physical Activity**

- Physical activity courses (except for special-topics or directed studies courses) are acceptable in Area E.
- Students may not complete Area E using only physical activity courses. Participating institutions are asked to limit the number of physical-activity units they count when certifying a student for Area E.
- Area E Certification: CCCs may offer a three-semester-unit course in tennis and qualify it for Area E. A CCC cannot apply all three units to a student's Area E certification.

## **CSU GE BREADTH AREA F**

### **Ethnic Studies**

### **CSU General Education Breadth**

Effective Fall 2021, revisions to CSU General Education Breadth Requirements describe all CSU GE area requirements, including the newly established Area F Ethnic Studies. To be approved for this requirement, courses shall have the following course prefixes: African American, Asian American, Latina/o American or Native American Studies. Similar course prefixes (e.g., Pan-African Studies, American Indian Studies, Ethnic Studies) shall also meet this requirement. Courses without ethnic studies prefixes may meet this requirement if cross-listed with a course with an ethnic studies prefix.

### **Area F Ethnic Studies**

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

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

1. Analyze and articulate concepts such as race and racism, racialization, ethnicity, equity, ethno-centrism, eurocentrism, white supremacy, self-determination, liberation, decolonization, sovereignty, imperialism, settler colonialism, and anti-racism as analyzed in any one or more of the following: Native American Studies, African American Studies, Asian American Studies, and Latina and Latino American Studies.
2. Apply theory and knowledge produced by Native American, African American, Asian American, and/or Latina and Latino American communities to describe the critical events, histories, cultures, intellectual traditions, contributions, lived-experiences and social struggles of those groups with a particular emphasis on agency and group-affirmation.
3. Critically analyze the intersection of race and racism as they relate to class, gender, sexuality, religion, spirituality, national origin, immigration status, ability, tribal citizenship, sovereignty, language, and/or age in Native American, African American, Asian American, and/or Latina and Latino American communities.

4. Critically review how struggle, resistance, racial and social justice, solidarity, and liberation, as experienced and enacted by Native Americans, African Americans, Asian Americans and/or Latina and Latino Americans are relevant to current and structural issues such as communal, national, international, and transnational politics as, for example, in immigration, reparations, settler-colonialism, multiculturalism, language policies.
5. Describe and actively engage with anti-racist and anti-colonial issues and the practices and movements in Native American, African American, Asian American and/or Latina and Latino communities to build a just and equitable society.

**IGETC AREA 7 (effective Fall 2023)**

**IGETC Standards 2.3**

**The UC defines Ethnic Studies Core Competencies requirement in the following way:**

To be approved for the ethnic studies requirement, community college courses shall have the following course prefixes: African American, Asian American, Latina/o/x American, or Native American Studies (which reflect the specific named populations centered in ethnic studies, hereinafter referred to as the “Populations”). Similar fields and course prefixes (e.g., Black Studies, African Diaspora Studies, Pan African Studies, American Indian Studies, Indigenous Studies, Asian American & Asian Diaspora Studies, Asian American and Pacific Islander Studies, Chicana/o/x Studies, Latina/o/x Studies, Critical Race and Ethnic Studies) shall also meet this requirement. Courses without ethnic studies prefixes may meet this requirement if cross-listed with a course with an ethnic studies prefix. Courses that are approved to meet this requirement shall meet at least 3 of the 5 following core competencies.

1. Analyze and articulate concepts such as race and racism, racialization, ethnicity, equity, ethnocentrism, eurocentrism, white supremacy, antiblackness, racial capitalism, self-determination, liberation, decolonization, sovereignty, imperialism, settler colonialism, exploitation colonialism, xenophobia, intersectionality, and antiracism as studied in any one or more of the abovementioned fields.
2. Apply theory and knowledge produced by the above-mentioned Populations to understand the critical events, histories, cultures, intellectual traditions, contributions, lived experiences and social struggles of those groups with a particular emphasis on subjection or subject formation, agency and group affirmation.

3. Critically analyze the intersection of race and racism as they relate to class, gender, sexuality, religion, spirituality, national origin, immigration status, ability, tribal citizenship, sovereignty, language, and/or age in the communities of the abovementioned Populations.
4. Critically situated, in historical context, how struggle, resistance, racial and social justice, solidarity, and liberation, as experienced and enacted by the above-mentioned Populations are relevant to current and structural issues at the local, national, international, and transnational levels. Such issues may include, for example, immigration, reparations, settler colonialism, multiculturalism, and language policies.
5. Describe and engage with anti-racist, abolitionist, and anti-colonial thought, issues, practices, and movements in communities of the above-mentioned Populations seeking a more just and equitable society.

**CCC courses for Area 7:**

1. CCC courses for Area 7 could be written with both CSU and UC Ethnic Studies Core Competencies requirements in mind, but the courses must meet either the CSU or UC Ethnic Studies Core Competencies requirement.
2. A course meeting the CSU Ethnic Studies Core Competencies requirement will be deemed to have met the UC Ethnic Studies Core Competencies requirement. Similarly, a course meeting the UC Ethnic Studies Core Competencies requirement will be deemed to have met the CSU Ethnic Studies Core Competencies requirement.

**IGETC STANDARDS AREA 6A (UC requirement)**

**Language Other Than English (LOTE)**

**IGETC Standards 2.3**

Students must demonstrate proficiency in a language other than English equal to two years or the second level of high school instruction. Students who satisfied the UC freshman entrance requirement in a language other than English (LOTE) have already fulfilled this requirement.

For students who did not meet the LOTE requirement in high school, they may fulfill IGETC Area 6A by completing a college course/courses, or by demonstrating proficiency in one of several other available methods. Language courses must provide instruction in the written and oral language as well as history and cultural traditions of the country associated with the language studied. Languages other than

English for Native Speakers are also acceptable for meeting this requirement. Courses that are primarily conversational (content cannot be primarily for business or travel-oriented language instruction) must have as a prerequisite a course equivalent to the third year/third level of high school instruction or one year of college level instruction in the language to be acceptable.

**There is no CSU GE Breadth Counterpart to Area 6A.** Students using the CSU GE Breadth pattern to meet their lower-division GE before transfer to the CSU are exempted from this systemwide requirement.

<b>IGETC Area 6A</b>
<p><b>Language Other than English (LOTE)</b></p> <ul style="list-style-type: none"><li>• Equal to two years or the second level of high school instruction</li><li>• Language courses must provide instruction in the written and oral language as well as history and cultural traditions of the country associated with the language studied.</li><li>• Languages other than English for Native Speakers are also acceptable for meeting this requirement.</li><li>• Courses that are primarily conversational (content cannot be primarily for business or travel-oriented language instruction) must have as a prerequisite a course equivalent to the third year/third level of high school instruction or one year of college level instruction in the language to be acceptable.</li></ul> <p>Courses approved for this area are deemed “proficiency,” i.e., equivalent to two years’ high school foreign language. This means that language courses above this level could in theory have a strong enough cultural component to qualify under Subarea C2 in CSU GE Breadth or Area 3B in IGETC.</p>

## **CSU AMERICAN INSTITUTIONS (CSU requirement)**

### **CSU Graduation Requirements in United States History, Constitution and American Ideals**

Establishes for all CSU students a separate graduation requirement in [United States History, Constitution and American Ideals](#) (informally abbreviated “American Institutions” or “AI”). As with lower-division general education, transfer students may fulfill American Institutions requirements before or after matriculating to the CSU. Typically, students take courses that count for both AI and GE.

### **U.S History, Constitution, and American Ideals**

The CSU’s Graduation Requirements in United States History, Constitution and American Ideals are established in (Executive Order 1061), separately from the areas of CSU GE Breadth. EO 1061 implements Title 5 Section 40404 of California’s Code of Regulations, which calls for study in three areas:

1. The historical development of American institutions and ideals (Area US-1),
2. The Constitution of the United States and the operation of representative democratic government under that Constitution (Area US-2), and
3. The process of California state and local government (Area US-3).

While Executive Order 1061 does not set a unit or course minimum for these areas, it’s unusual for a single course to adequately address all three. Instead, participating CCC submit a sequence of courses – typically including courses from their history and/or political science departments – that together meet the graduation requirement in American Institutions.

Following the Graduation Requirements in United States History, Constitution and American Ideals, reviewers use these criteria for each of the three areas:

#### **Area US-1: American History**

Students are expected to learn significant events from U.S. history, as follows:

- covering a minimum time span of approximately 100 years
- occurring in the entire area now included in the United States of America
- including the relationships of regions within that area and with external regions and powers
- the role of major ethnic and social groups

- the “continuity of the American experience” (i.e., not a string of isolated events) and its derivation from other cultures, including study of politics, economics, social movements, and/or geography (at least three of the four)

### **Area US-2: The U.S. Constitution**

Course outlines should reflect content that teaches:

- the political philosophies of the framers of the Constitution
- the operation of United States political process and institutions under the U.S. Constitution
- the rights and obligations of individual citizens in the political system established under the Constitution

### **Area US-3: California State and Local Government**

Courses in this area will address:

- the Constitution of the State of California
- the nature and processes of California state and local government
- the relationships between the U.S government and California’s state and local governments

*Notice that these criteria are extremely detailed. Good courses are often turned down, as reviewers must consider not only their quality but also how closely they meet these exact criteria, as set by administrative law and CSU policy.*



**PART FOUR: COURSES NOT APPROPRIATE FOR GENERAL EDUCATION**

**Common Examples of Corrections Needed to Align Courses with CSU GE Breadth and IGETC Criteria**



All GE Areas
This outline contains insufficient detail in the content section for reviewers to determine how the course meets the area requirements.
Outlines submitted for CSU GE or IGETC course approval must be in English.
The course is primarily a skills course or focused on the development of technique and is not appropriate for general education.
The title does not match the course description or course content in the course outline.
The elements of the course outline do not appear to fit together as a cohesive, focused course. There appears to be a disconnect between the course objectives and the course content.
Courses proposed for IGETC must have a minimum unit value of 3-semester or 4-quarter units.
Textbook information should include the date of publication.
The texts appear to be outdated. At least one textbook must have been published within the past 7 years or identified as a “classic text” or “discipline classic.” Outlines with texts more than 7 years old may be denied if more recently published texts are appropriate and readily available.
Incorrect lecture or lab hours per term on COR.
Variable-topics courses (or directed-studies courses) are not accepted for IGETC or CSU GE.

**CSU GE BREADTH AREA A and IGETC AREA 1**

Oral Communication A1/1C
Course outline must explicitly state and include faculty-supervised, faculty-evaluated practice in oral communication presented in front of other listeners.
Rhetorical principles must be covered (study of effective communication in formal speeches or social interaction is appropriate, for example).

**Common Examples (continued)**

<b>Written Communication A2/1A</b>
Courses in this area must be conducted in English.
A revised outline should specify the approximate total number of words (counting only final drafts) that students are expected to write and should specify writing assignments required in class and outside the classroom.
Courses in news writing and reporting are excluded from Area A2.
This course focuses on the development of students' creative writing skills and techniques rather than the development of expository writing, which emphasizes form, content, context, and effectiveness of communication.
Courses designed exclusively for skills development cannot be counted toward fulfillment of the English composition requirement, whether they are in the CCC or in the CSU.

<b>Critical Thinking, Critical Thinking and Composition A3/1B</b>
The content section of the outline does not provide enough detail to determine whether all elements of critical thinking required by CSU GE policy for Subarea A3 are present (e.g., whether students will be able to advocate ideas effectively and to reason inductively and deductively).
Course does not appear to include sufficient explicit instruction and practice in inductive and deductive reasoning or identifying formal and informal fallacies of language and thought.
Literary criticism courses are typically not accepted in Area A3.
Area 1B courses must include evaluation of information.

**CSU GE BREADTH SUBAREA B4 and IGETC AREA 2**

<b>Scientific Inquiry, Physical and Biological Sciences B1/5A and B2/5B</b>
Course emphasizes professional applications of chemistry rather than science as an investigative tool; it does not address sufficiently the principles, theories, and methodology of chemistry.
The course emphasizes technical skills rather than the scientific principles and theories of physical or cultural geography, it is appropriate for neither Area 5A nor Area 4.
Science courses should cover basic scientific principles and not just include memorization of facts or skills practice.

**Common Examples (continued)**

<b>Laboratory Science B3/5C</b>
Lecture-and-Lab science outlines should distinguish and delineate the lecture content from lab activity for approval in this area.
A lab manual is required for courses in this area, and none is listed on the course outline.
Laboratory course is acceptable in Area B3/Area 5C only if the corresponding lecture is adopted as its pre- or co-requisite.

<b>Mathematics/Quantitative Reasoning, Mathematical Concepts and Quantitative Reasoning B4/2A</b>
This course is remedial work in quantitative reasoning or the first part of “stretch,” co-requisite, or pathway portion of a quantitative reasoning course and is not acceptable for CSU GE Breadth or IGETC.
This statistics course lacks conceptual or computational skills in basic inferential statistical methods, probability as it relates to statistical inference, or attention to statistical literacy.
Remedial work in mathematics, defined as work in topics from arithmetic, beginning and intermediate algebra, high school geometry, or trigonometry if taught as a separate course are not acceptable for CSU GE Breadth or IGETC.

**CSU GE BREADTH AREA C and IGETC AREA 3**

<b>Arts C1/3A</b>
Performance and studio classes may be credited toward satisfaction of this subject area only if they include substantial integration of history, theory, and criticism.
Strong focus on technical and performance skills precludes its acceptance in Subarea C1/Area 3A.
This course appears to be for Art majors, not general education students and is thus denied for general education.

<b>Humanities C2/3B</b>
Courses for native (heritage) speakers must emphasize culture and cultural readings in the language rather than a focus on grammar and written language skills exclusively.
Children’s literature courses that appear to focus too heavily on how to select books for children and how to read them to children, rather than on learning and applying the techniques of literary analysis and criticism to literature written for children.
Course focuses on the development of students’ creative writing skills and techniques rather than the critical analysis of literary genres.
Mass communication/mass media courses are unlikely to be accepted in IGETC Area 3B.
Strong focus on skills and techniques precludes it from being accepted for Subarea C2.

**CSU GE BREADTH AREA D AND IGETC AREA 4**

**Common Examples (continued)**

<b>Social Sciences, Social and Behavioral Sciences Area D/4</b>
Course emphasizes the application of social scientific findings in an occupationally oriented context, rather than principles, theories, and methods of social science.
The course appears to be devoted to career-oriented preparation, rather than social scientific concepts, theories, and methods.
Course appears to concentrate on the development of students' communication skills rather than on social scientific principles, theories, and research methods.
The course outline does not make clear how sociological concepts, theories, and methodology underlie the examination of marriage and the family as social institutions.

**CSU GE BREADTH AREA E**

<b>Lifelong Learning and Self-Development Area E</b>
Attention to the integration of physiological, psychological, and social considerations does not appear to be sufficient; most of the course appears to be devoted to library use.
Courses that teach specific job skills are not considered appropriate for Area E.
Course does not appear to integrate physiological, psychological, and sociological study to a sufficient extent to qualify for Area E.
The course is missing the three kinds of inquiry required for Area E: sociological, physiological, and psychological.
Courses should address all three areas of inquiry for more than a few years of a human lifespan.
Child development courses may qualify for Area E if they integrate physiological, psychological, and sociological study beyond adolescence.
This course does not expand beyond the college years as a GE course. Lifelong learning, physiological, social, and psychological integration is not the purpose of this course.
Although there is some mention of "behavior" in the outline, the extent to which the course integrates psychological and socio-cultural considerations with its physiological content is not clear.
Course has some topics that draw clearly on findings and principles of psychology and sociology, it hardly touches on physiological (e.g., health) considerations and appears to be devoted to too great an extent to college-specific material and educational planning.
This is a pre-professional training course.
This is a single learning skill course and not appropriate for GE.
Courses in Area E must not focus on a single learning skill (e.g., library use, computer literacy, or first aid).

**CSU GE BREADTH AREA F**

**Common Examples (continued)**

Ethnic Studies Area F
Proposed course does not have an ethnic studies-related prefix (e.g., HIST 200 History of African Americans in the US would not be approved; unless it was cross-listed with an approved course from ethnic studies).
Course must have an Ethnic Studies prefix.
To be approved for this requirement, courses shall have the following course prefixes: African American, Asian American, Latina/o American or Native American Studies. Similar course prefixes (e.g., Pan-African Studies, American Indian Studies, Chicana/o Studies, Ethnic Studies) shall also meet this requirement.
At least 3 of 5 CSU core competencies for Ethnic Studies are not clearly stated in course objectives or SLOs.
Course does not have a special focus on one or the four historically defined racialized core groups: Native Americans, African Americans, Asian Americans, and Latina and Latino Americans.
The course is not focused on the four historically defined racialized core groups.
The course does not focus on ethnic studies foundations, concepts, and theories.
Course content does not have a clear focus on ethnic studies frameworks and theories.
No clear focus on Ethnic Studies throughout course (e.g., description, objectives or SLOs, content, college-level assignments, and current textbooks, readings, journals/articles).
The course description and content appear more focused on sociology not Ethnic Studies. What will students learn about Ethnic Studies?
Course textbooks and readings do not include Ethnic Studies references or classics.

**UNITED STATES HISTORY, CONSTITUTION AND AMERICAN IDEALS  
(AMERICAN INSTITUTIONS)**

<b>American Institutions</b>
US-1: It is not clear if the course content covers a minimum time span of approximately 100 years.
US-1: Course does not include enough attention to the major ethnic and social groups in the United States.
US-1: The outline does not indicate a strong enough focus on the requirements outlined in the Guiding Notes because it does not address: "the role of major ethnic and social groups" and "the continuity of the American experience" (i.e., not a string of isolated events).
US-1: The course content appears to focus largely on the American Southwest, not the entire area now comprising the United States.
US-2: The course content section of the outline does not address the political philosophies of the framers of the U.S. Constitution.
US-2: Course does not devote a significant amount of time to the study of the U.S. Constitution.
US-3: This COR is very unclear as to what or how students learn about California state and local government topics required for US-3.
US-3: Course does not include significant California state and local government content.
US-1, US-2, and US-3: It is unusual and highly unlikely for a single GE course to adequately address all three areas with significant attention to the required topics.

## **PART FIVE: ELECTRONIC RESOURCES**

These notes are available online at [calstate.edu](http://calstate.edu).

The documents cited in these Guiding Notes are those in effect as of September 2022. Readers are encouraged to refer to online sources, as these references are often revised or superseded.

### **Intersegmental General Education Transfer Curriculum, CSU General Education Breadth, and American Institutions**

- [IGETC Standards Version 2.1](#)[IGETC Standards Version 2.3](#)
- [CSU General Education Breadth Requirements \(December 2020\)](#)
- [CSU Graduation Requirements in United States History Constitution and American Ideals](#)

### **Courses and Articulation in California**

- [ASSIST](#)
- [ASSIST Resource Center](#)
- [ASSIST Tutorials](#)
- [California Community Colleges and Districts](#)
- [CCC Transfer Counselor Website](#)
- [Community College Catalogs](#)
- [Course Identification Numbering System \(C-ID\)](#)

### **Transferability of Baccalaureate-Level Coursework**

- [CSU Transfer of Credit](#)
- [Baccalaureate-Level Courses \(ASCSU May 1997\)](#)