



GENERAL EDUCATION PROGRAM GUIDELINES

Spring, 1998*

A university brings together many separate areas of learning, yet it is more than just a collection of specialized disciplines. General Education involves both the development of skills and the acquisition of knowledge through the study of facts, issues, and ideas. Regardless of major, all who earn undergraduate degrees should share a common universe of discourse.

The objectives of the San José State University General Education program are:

- To develop analytical skills and reasoning powers;
- To increase the ability to communicate ideas effectively both in speaking and in writing;
- To enhance the ability to live and work intelligently, responsibly, and cooperatively in a multicultural society and an increasingly interdependent world;
- To provide a fundamental understanding of science and the natural world;
- To further knowledge and appreciation of the arts and letters;
- To promote citizenship through knowledge of the forces that shape the individual and modern society; and
- To develop abilities to address complex issues and problems using disciplined analytic skills and creative techniques.

The advancement of academic discourse requires civility and a respectful attitude toward all members of the academic community in the expression and consideration of a variety of viewpoints. All courses shall reinforce the ethical responsibility of students and instructors to acknowledge respectfully the learning styles and forms of expression of individuals and members of all groups.

*Supersedes Fall 1994 Guidelines

Consult "Implementation Issues" section for information on effective dates

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GENERAL EDUCATION REQUIREMENTS

CORE GENERAL EDUCATION		ADVANCED GENERAL EDUCATION
A. Skills		Prerequisites
A1. Oral Communication	3	Writing Skills Test
A2. Written Communication IA	3	Upper Division Standing
A3. Critical Thinking	3	Completion of CORE GE
B. Science (includes Mathematical Concepts)	9	Areas

C. Humanities & Arts (includes Written Communication 1B) (may include 6-unit American Institutions graduation requirement) D. Social Sciences (may include 6-unit American Institutions graduation requirement) E. Human Understanding & Development	9 9 3	R. Earth & Environment S. Self, Society & Equality in the U.S. V. Culture, Civilization & Global Understanding Z. Written Communication (may be waived with WST score and approval of major department)	3 3 3 3
Total units	39	Total units	9 11
Graduation requirement: American Institutions (may be satisfied in CORE GE with designated coursework)			6

IMPLEMENTATION OF GENERAL EDUCATION GUIDELINES

Rules for Students to Satisfy General Education Requirements

- **1. Effective Dates**

- Fall 1997 to present: Students who began continuous enrollment in Fall 1997 or later must follow the GE requirements outlined in these guidelines. All students may choose to follow this plan.
- Fall 1991-Spring 1997: There are a variety of GE patterns for students who began continuous enrollment Fall 1991-Spring 1997. Most students will benefit from following the Fall 1997 requirements described here; however, students should consult with the Student Resource Center to determine the best pattern in their case.
- Prior to Fall 1991: Students who began continuous enrollment at SJSU or other CSU or California Community College prior to Fall 1991 follow the GE pattern that was in effect at the time they began continuous enrollment. Consult the Student Resource Center for appropriate patterns and requirements.

- **2. Minimum Units and Grades.**

- All students must complete 51 units of approved GE courses in letter grades.
- If a requirement is waived without unit credit (e.g., English 1B, 100W) or an area is satisfied with fewer units (e.g., quarter to semester unit conversions), additional approved GE courses may be required to complete a minimum of 48 GE units (CSU requirement).

- All three areas described in the guidelines must be completed by all students: Core GE (39 units), Advanced GE (9-12 units), and American Institutions.
- Written Communication and Mathematical Concepts courses require a minimum grade of C-.

3. Transfer and Second Baccalaureate Students

- Core GE may be satisfied by completing an Intersegmental GE Transfer Curriculum (IGETC) or a CSU 39-unit breadth certification prior to transfer. Second baccalaureate students satisfy Core GE with their first baccalaureate.
- All students must satisfy Advanced GE at SJSU regardless of GE completed at other institutions. EXCEPTION: Written Communication II may be satisfied prior to transfer.

4. General Education Breadth

- Students should be encouraged through academic advisement to experience a wide variety of perspectives in both their Core and Advanced GE courses. Individual Core areas may impose limits on the number of courses allowed in a particular discipline.

5. Prerequisites. The following GE courses require prerequisites to enroll:

- Written Communication 1A and 1B: English Placement Test (EPT)
- Mathematical Concepts: Entry Level Math Test (ELM)
- Advanced GE: Writing Skills Test (WST)
- If a student passes LLD 99 (Sophomore Writing), the student may register for ADVANCED GE courses. The student must fail the WST twice to enroll in LLD 99. This permission to enroll in ADVANCED GE does not apply to Written Communication II.

6. Approved Courses

- All GE courses must be on the approved list of the California Community College (CCC), California State University (CSU), or University of California (UC) for CSU Breadth Requirement or the Intersegmental General Education Transfer Curriculum (IGETC) where and when the course is taken.

To find approved courses at SJSU, check the GE Course Listing in the *SJSU Schedule of Classes* or use the GE designator listed for the requirement. This designator is also listed for each GE class section in the *SJSU Schedule of Classes*.

Limits on Number and Distribution of Certified Courses

The Board of General Studies is currently discussing the manner in which the number and distribution of courses will be limited. Subsequently, the Board will initiate discussion with the entire campus on this issue.

GE Modifications for Majors

1. Requests by Individual Students for Modification of General Education Requirements.

1. Students should submit requests for a modification, including documentation and/or a statement supporting the request, to the Student Resource Center as soon as possible after admission to the University. Individual requests for a modification of General Education Requirements shall be reviewed and ruled on by campus authorities designated by the Office of Undergraduate Studies. Requests should be ruled on within one calendar month.

2. Requests by Degree Programs

A. Degree Programs should submit requests for a modification of the General Education Requirements, including documentation and a statement supporting the request, to the Office of Undergraduate Studies. Requests by programs for a modification should be submitted at least one full year before the modification would go into effect. The Office of Undergraduate Studies shall review the request in consultation with the Board of General Studies. The Board or Undergraduate Studies may solicit additional information and consult with the appropriate General Education Advisory Panel. The final recommendation to grant or deny the modification is made by the Board of General Studies to the Provost. Appeals of the Board's decisions may be made to the Provost.

- B. Degree Programs may apply for a modification of the CORE General Education

Requirements under the following circumstances:

- 1) when Degree Programs cannot accommodate GE requirements within the maximum degree unit limits (124 units for a B.A.; 132 units for a B.S.),

OR

when the General Education Program adds required units to selected degree programs,

AND

- 2) when a single course or a combination of courses in a Degree Program fulfills the objectives of a General Education Requirement.

C. If modifications are granted by the Provost, all departments within the affected area(s) shall be notified at least one full semester in advance of the implementation of the modification.

Administration of the General Education Program

The Board of General Studies, in consultation with GE Advisory Panels and the Writing Requirements Committee, is responsible to the Associate Vice President, Undergraduate Studies, for final review and recommendations on all criteria, courses, evaluation and assessment instruments, and procedures. The Guidelines that appear in this booklet were prepared by the committee members listed at the end of the Guidelines.

PROCEDURE FOR SUBMITTING COURSES FOR GE CERTIFICATION

Submit 12 copies of the complete course assessment/certification packet. If there are any questions, please call the Director of General Education, Office of Undergraduate Studies (42447).

- 1. Course Certification Request Form.**
- 2. New courses: approved Undergraduate Permanent Course Proposal Form.**
Existing modified course: approved Minor Curriculum Change Form.

- 3. Course Description**

Demonstrate how the course meets the content requirements. The description must be applicable to all sections of the course, regardless of instructor or department for cross-listed courses. Include:

- a. course syllabus (greensheet) for all sections
- b. course objectives
- c. topics or subjects covered in the course
- d. prerequisites (if any)

- 4. Assessment**

All courses must have an approved Assessment Plan on file in the Office of Undergraduate Studies (see Assessment section of GE Guidelines). In accordance with the approved plan, a summary of the assessment results must be presented for all sections of the course.

Include a description of:

- a. assignments (including length and style of required reading and writing)
- b. examinations (number, format, and relation to competencies)

c. description of assessment strategies used and information reviewed dates and number of sections).

5. Instruction

Describe how the course is taught. Include:

- a. methods of instruction (e.g., lectures, discussions, small groups, simulation), pointing out opportunities for active student learning
- b. general qualifications of all those who might teach the course, with areas of expertise, experience and training

c. description of how course will be coordinated to insure consistent implementation and assessment across all sections of the course

Approval Process

1. *Department* submits a complete GE assessment/certification packet to the *Board of General Studies* via their *College Dean* (see guidelines above). Designation of a department *Course Coordinator* is required (e.g., instructor, curriculum committee representative, department chair).
2. *College Curriculum Committee* reviews requests and forwards to *College Dean* for recommendation.
3. *College Dean* forwards 12 copies of all submitted packets to the *Board of General Studies* by October 1 for the following Fall and March 1 for the following Spring certification.
4. Core and American Institutions courses: *Board of General Studies* conducts initial review based on abstract, then refers proposals to the appropriate *GE Advisory Panel*.
5. The *Panel* reviews the complete packet and forwards its recommendations to approve, deny, or modify/clarify the course to the *Board*.
6. The *Board* reviews all courses. No proposals are rejected or modified/clarified without consultation with the *Department*.
7. After appropriate consultations, the *Board* makes final recommendation to approve, deny or modify/clarify the course to the *Provost*.
8. After final approval, *Undergraduate Studies* records the certification in the official University Curriculum File.

Courses approved by February 1 may be scheduled for the following Fall term. Courses approved by September 1 may be scheduled for the following Spring term.

GENERAL EDUCATION COURSE CERTIFICATION REQUEST

CRS: _____ TITLE: _____ UNITS: _____

Choose one: CORE _____ or ADVANCED _____ AREA: _____

ABSTRACT

1) Content of course:

2) Assessment plan summary:

COURSE COORDINATOR

Name:	Phone:	Email:
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SIGNATURES

Department Chair:	Date:	Recommend or Deny
College Dean:	Date:	Recommend or Deny
Advisory Panel Chair*: _____ (Core & American Institutions, Written Communication II only)	Date:	Recommend or Deny
AVP, Undergrad. Studies**: _____	Date:	Recommend or Deny
Provost: _____	Date:	APPROVE or DENY

(Undergraduate Studies Office: Curriculum File Recorded _____
Date _____)

**Core & American Institutions, Written Communication II only*

***For Board*

CORE GE: (A1) - ORAL COMMUNICATION

1. Goals

Courses shall cultivate an understanding of the social, psychological, political and practical significance of communication, with special emphasis on the roles of public communication in a free society. Students will give oral presentations and be encouraged to develop their sense of voice, which means speaking with confidence in public forums in ways that reflect their unique perspective and identity. Students will learn and appreciate a range of public speaking styles and forms of eloquence, while respecting the freedom of expression of all members of the community.

2. Student Learning

Students will be able to:

- compose and deliver extemporaneous public presentations on socially significant and intellectually challenging topics;
- engage in critical and analytical listening;
- analyze audiences and adapt oral presentations to audiences; and
- assume the ethical responsibilities of the public speaker.

3. Content

- *Diversity.* Issues of diversity shall be incorporated in an appropriate manner.
- *Major speech assignments.* Each class shall require students to present at least three major speech assignments that meet the following requirements. These presentations, delivered before a full classroom audience, shall be individually graded and, taken together, should account for at least 50 percent of the course grade. They shall require the student to address intellectually challenging topics of broad social relevance and to develop original presentations of sufficient length to demonstrate the major skills of the course. The assignments shall require the student to undertake substantial research from a variety of sources and to synthesize the evidence to support or explicate the points of his or her presentation. These speeches shall be presented in the extemporaneous mode, allowing for adaptation to audience response. Whenever possible, the student should have the opportunity to develop further and clarify her or his ideas through a question and answer exchange with audience members. Each student shall receive extensive feedback on these assignments addressing a full range of rhetorical criteria such as content, organization, language, and delivery.
- *Additional speaking assignments.* Each course shall include additional oral assignments and exercises designed to enable students to master the skills required for the major assignments and/or to develop skills in additional forms of public speaking. Each student will have at least one opportunity to revise and improve a speech following formative feedback from the instructor and peers. Each student will have some collaborative experience in the social construction of oral messages. This may take the form of working with a peer support group, preparing a group presentation, engaging in debate, or participating in a structured individual conference with the instructor.
- *Written assignments.* Each of the three major speech assignments shall require full sentence outlines or argumentative briefs containing sufficient detail to show the relationships among the points and sub-points of the presentation and the evidence used to support these points. Additional written assignments should include appropriate papers, bibliographies, exercises, written speech analyses, and /or written peer critiques. The minimum writing requirement is 1500 words in a language and style appropriate to the discipline.

4. Support

- *Class size.* Classes shall normally be limited to 25 students. For sections that are specifically designed for limited-English-speaking students, the enrollment limit shall be 20.
- *Special or supplementary assistance.* Some students may require special or more assistance than the regular class can provide. In such cases, faculty are urged to refer the student to the appropriate program for special or supplementary assistance.
- *Instructor qualifications*
 - an understanding and appreciation of the SJSU GE program;
 - a doctorate (preferred but not required);

- college-level teaching experience or advanced (graduate) training in the subject matter of the course;
- a professional commitment to the learning needs of a diverse student body;
- sections designed for foreign students require substantial formal training and experience in teaching speakers of other languages, in addition to above requirements;
- teaching associates shall be allowed to teach a GE class only after training and under the close supervision of an expert in the field; and
- exceptions must be justified by the department.

5. Assessment

- Each course shall include readings and lecture/discussions to introduce students to the study of communication and the process of human symbolic interaction, focusing on the communicative process from the rhetorical perspective: analysis, reasoning, and advocacy; organization; and the discovery, critical evaluation, and reporting of information.
- To demonstrate mastery of this conceptual material, each course shall include at least 100 minutes of written examinations.
- Writing shall be assessed for correctness, clarity, and conciseness.
- In accordance with the approved assessment plan, the course coordinator/department chair will summarize the assessment results and attach them to the certification request.

CORE GE: (A2) - WRITTEN COMMUNICATION IA

1. Goals

Courses should cultivate an understanding of the writing process and the goals, dynamics, and genres of written communication, with special attention to the nature of writing at the university. Students will develop college-level reading abilities, rhetorical sophistication, and writing styles that give form and coherence to complex ideas and feelings. A passing grade signifies that the student is a capable college-level writer and reader of English.

2. Student Learning

- Students shall write complete essays that demonstrate the ability to:
 - perform effectively the essential steps in the writing process (prewriting, organizing, composing, revising, and editing);
 - express (explain, analyze, develop, and criticize) ideas effectively;
 - use correct grammar (syntax, mechanics, and citation of sources) at a college level of sophistication; and
 - write for different audiences.

3. Content

- *Diversity.* Issues of diversity shall be incorporated in an appropriate manner.
- *Writing.* Writing assignments shall give students repeated practice in pre-writing, organizing, writing, revising, and editing. The number of writing assignments and their careful sequencing are as important as the total number of words written. Eight to ten essays totaling a minimum of 8000 words are required. This minimum requirement excludes the final exam, journal writing, quizzes, and other informal or brief assignments. Although the majority of papers will be written outside of class, at least three essays shall be written in class. Students shall receive frequent evaluations from the instructor. Evaluative comments must be substantive, addressing the quality and form of writing.
- *Reading.* Reading for the course will be extensive and intensive. It shall include useful models of writing for academic, general, and special audiences.

4. Support

- *Tutoring.* At the discretion of the university or the instructor, students may be required to attend tutoring sessions as a co-requisite to completing the course.
- *Class size.* Classes shall normally be limited to 25 students. It is not acceptable to increase the number of students and use readers or teaching assistants for paper grading or discussion sections.
- *Grading.* A/B/C/No Credit.
- *Prerequisites.* Passage of the English Proficiency Test (EPT), or passage of an approved substitute course for EPT.
- *Instructor qualifications*
 - an understanding and appreciation of the SJSU GE program;
 - a doctorate (preferred but not required);
 - college-level teaching experience or advanced (graduate) training in the subject matter of the course;
 - a professional commitment to the learning needs of a diverse student body;
 - sections designed for foreign students require substantial formal training and experience in teaching speakers of other languages, in addition to above requirements;
 - teaching associates shall be allowed to teach a GE course only after training and under the close supervision of an expert in the field; and
 - exceptions must be justified by the department.

5. Assessment

- *Common Final Exam.* Students shall be tested by means of a common final essay examination, to count 20 percent toward the course grade. A single examination will be developed by a committee established by the Writing Requirements Committee to include representatives of all departments offering courses fulfilling

- this requirement. All faculty members teaching individual sections will grade the examination holistically under controlled conditions.
- *Guidelines.* Any department offering a course to meet the requirement shall, for each such course, write detailed course guidelines in accordance with the criteria above. These guidelines shall be submitted to the Writing Requirements Committee and distributed each semester to all faculty members teaching the course.
 - Writing shall be assessed for correctness, clarity, and conciseness.
 - In accordance with the approved assessment plan, the course coordinator/department chair will summarize the assessment results and attach them to the certification request.

CORE GE: (A3) - CRITICAL THINKING

1. Goals

Critical thinking courses should help students learn to recognize, analyze, evaluate, and produce reasoning.

2. Student Learning

Students will demonstrate, orally and in writing, proficiency in the course goals. Development of the following competencies will result in dispositions or habits of intellectual autonomy, appreciation of different world views, courage and perseverance in inquiry, and commitment to employ analytical reasoning. Students should be able to:

- distinguish between reasoning (e.g., explanation, argument) and other types of discourse (e.g., description, assertion);
- identify, analyze, and evaluate different types of reasoning;
- find and state crucial unstated assumptions in reasoning;
- evaluate factual claims or statements used in reasoning and evaluate the sources of evidence for such claims; and
- locate, retrieve, organize, analyze, synthesize, and communicate information of relevance to the subject matter of the course.

3. Content

- Students will analyze, evaluate, and construct their own arguments or position papers about issues of diversity such as gender, class, ethnicity, and sexual orientation; students will analyze, evaluate, and construct arguments about these issues and construct arguments or position papers of their own.
- Reasoning about other issues appropriate to the subject matter of the course shall also be presented, analyzed, evaluated, and constructed.
- All critical thinking classes should teach formal and informal methods for determining the validity of deductive reasoning and the strength of inductive

- reasoning, including a consideration of common fallacies in inductive and deductive reasoning.
- Courses shall require the use of qualitative reasoning skills orally and for written assignments. Substantial writing assignments are to be integrated with critical thinking instruction. Writing will lead to the production of argumentative essays, with a minimum of 3000 words required.

4. Support

Class size. Enrollment shall normally be limited to 25 students.

Prerequisite. English 1A is strongly recommended as a prerequisite (or co-requisite).

Instructor qualifications

- an understanding and appreciation of the SJSU GE program;
- a doctorate (preferred but not required);
- college-level teaching experience or advanced (graduate) training in the subject matter of the course;
- a professional commitment to the learning needs of a diverse student body;
- a professional commitment to critical thinking instruction, as demonstrated by teaching experience, publications, or continuing professional education;
- sections designed for foreign students require substantial formal training and experience in teaching speakers of other languages, in addition to above requirements;
- teaching associates shall be allowed to teach a GE course only after training and under the close supervision of an expert in the field; and
- exceptions must be justified by the department.

5. Assessment

- Evaluation of student work shall include assessment of reasoning abilities.
- Writing shall be assessed for correctness, clarity, and conciseness.
- In accordance with the approved assessment plan, the course coordinator/department chair will summarize the assessment results and attach them to the certification request.

CORE GE: (B1, B2, & B3) - SCIENCE

1. Goals

Science is a continuous and adaptive process through which we discover and communicate how the natural world works, separate fact from inference, and establish testable frameworks. All students should master essential quantitative and qualitative skills that are necessary to understand scientific knowledge and methods and to incorporate these processes into the workplace and everyday life experiences.

2. Student Learning

Students should be able to:

- use the methods of science and knowledge derived from current scientific inquiry in life or physical science to question existing explanations;
- demonstrate ways in which science influences and is influenced by complex societies, including political and moral issues; and
- recognize methods of science, in which quantitative, analytical reasoning techniques are used.

3. Content

- Students must complete at least one three-unit course in life science and one three-unit course in physical science. At least one laboratory course must be completed.
- *Diversity*. Issues of diversity shall be incorporated in an appropriate manner.
- *Writing*. The minimum writing requirement is 1500 words in a language and style appropriate to the discipline.

- All Science courses should demonstrate how scientists seek proof for causal relationships between microscopic phenomena and macroscopic observables.

Life Science courses focus on:

- structures and functions of living organisms;
- levels of organization of living systems, from atom to planet;
- strategies for survival and reproduction;
- patterns of evolution;
- principles of genetics, including the basis for variation; and
- interaction of organisms and their natural environment.

Physical Science courses focus on:

- laws of thermodynamics;
- structure of matter;
- interaction of matter and energy;
- behavior of physical systems through time;
- systems of classification; and
- physical processes of the natural environment.

4. Support

- *Instructor qualifications*
 - an understanding and appreciation of the SJSU GE program;
 - a doctorate (preferred but not required);

- college-level teaching experience or advanced (graduate) training in the subject matter of the course;
- a professional commitment to the learning needs of a diverse student body;
- sections designed for foreign students require substantial formal training and experience in teaching speakers of other languages, in addition to above requirements;
- teaching associates shall be allowed to teach a GE course only after training and under the close supervision of an expert in the field; and
- exceptions must be justified by the department.

5. Assessment

- Writing shall be assessed for correctness, clarity, and conciseness.
- In accordance with the approved assessment plan, the course coordinator/department chair will summarize the assessment results and attach them to the certification request.

CORE GE: (B4) - MATHEMATICAL CONCEPTS

1. Goals

The major goal is to enable the student to use numerical and graphical data in personal and professional judgments and in coping with public issues.

2. Student Learning

The mathematical concepts course should prepare the student to:

- use mathematical methods to solve quantitative problems, including those presented in verbal form;
- demonstrate the ability to use mathematics to solve real life problems; and
- arrive at conclusions based on numerical and graphical data.

3. Content

- *Diversity*. Issues of diversity shall be incorporated in an appropriate manner.
- *Writing*. The minimum writing requirement is 1500 words in a language and style appropriate to the discipline.
 - Survey of Basic Mathematical Concepts courses should focus on:
 - basic mathematical techniques for solving quantitative problems appropriate to the course content;
 - elementary numerical computation;
 - the organization, classification, and representation of quantitative data in various forms, such as tables, graphs, rates, percentages, measures of central tendency and spread; and

- applications of mathematics to everyday life.

Application of Mathematical Concepts and Skills courses should:

- include the content listed above for Basic Mathematical Concepts courses; and
- focus on applications of mathematical concepts in one or more areas such as statistical inference, trigonometry, calculus, and analytic geometry.

4. Support

- *Instructor qualifications*
 - an understanding and appreciation of the SJSU GE program;
 - a doctorate (preferred but not required);
 - college-level teaching experience or advanced (graduate) training in the subject matter of the course;
 - a professional commitment to the learning needs of a diverse student body;
 - sections designed for foreign students require substantial formal training and experience in teaching speakers of other languages, in addition to above requirements;
 - teaching associates shall be allowed to teach a GE course only after training and under the close supervision of an expert in the field; and
 - exceptions must be justified by the department.

5. Assessment

- Writing shall be assessed for correctness, clarity, and conciseness.
- In accordance with the approved assessment plan, the course coordinator/department chair will summarize the assessment results and attach them to the certification request.

CORE GE: (C1 & C2) - HUMANITIES & ARTS

Arts and Letters

1. Goals

Courses in Arts and Letters should give students knowledge and understanding of significant works of the human intellect and imagination. Students will examine the interaction of analytical and creative processes in the production and perception of such works, and the significance of the historical and cultural contexts in which the works are created and interpreted. Courses should enable students to participate in social and

cultural communities associated with artistic and literary endeavors, enriching their personal and professional lives.

2. Student Learning

Arts courses will enable students to:

- recognize aesthetic qualities and processes that characterize works of the human intellect and imagination;
- respond to works of art both analytically (in writing) and affectively (in writing or through other forms of personal and artistic expression); and
- write clearly and effectively.

Letters courses will enable students to:

- recognize how significant works illuminate enduring human concerns;
- respond to such works by writing both research-based critical analyses and personal responses; and
- write clearly and effectively.

3. Content

- Students must complete at least one three-unit Arts course and one three unit Letters course.
- *Diversity.* Issues of diversity shall be incorporated in an appropriate manner.
- *Writing.* The minimum writing requirement is 1500 words in a language and style appropriate to the discipline.

Arts courses should give students the opportunity to:

- experience significant works of art in the classroom and in performances and exhibitions;
- understand the historical or cultural contexts in which specific works of art were created; and
- recognize the accomplishments of and issues related to women and diverse cultures reflected in such works of art.

Letters courses should give students the opportunity to:

- examine significant works of the human intellect and imagination;
- understand the historical and cultural contexts in which such specific texts were created; and
- recognize the accomplishments of and issues related to women and diverse cultures reflected in such texts.

4. Support

- *Instructor qualifications*
- an understanding and appreciation of the SJSU GE program;
- a doctorate (preferred but not required);
- college-level teaching experience or advanced (graduate) training in the subject matter of the course;
- a professional commitment to the learning needs of a diverse student body;
- sections designed for foreign students require substantial formal training and experience in teaching speakers of other languages, in addition to above requirements;
- teaching associates shall be allowed to teach a GE course only after training and under the close supervision of an expert in the field; and
- exceptions must be justified by the department.

5. Assessment

- Writing shall be assessed for correctness, clarity, and conciseness.
- In accordance with the approved assessment plan, the course coordinator/department chair will summarize the assessment results and attach them to the certification request.

6. American Institutions Requirement

American Institutions courses may satisfy Core Area C requirements if they meet the following conditions:

- consist of at least a six-unit package that is interdisciplinary and team-taught;
- focus on cultural pluralism; and
- meet the criteria for Institutions and Core Area C.

CORE GE: (C3) - HUMANITIES & ARTS

Written Communication 1B

1. Goals

Written communication 1B will reinforce and advance the abilities developed in Written Communication 1A, broadening and deepening students' understanding of the genres, audiences, and purposes of college writing. Students will develop a mature writing style appropriate to university discourse, sophistication in writing argumentative essays, mastery of the mechanics of writing, and proficiency in basic library research skills and in writing papers informed by research.

2. Student Learning

Students shall write complete essays that demonstrate the ability to:

- refine the competencies established in Written Communication 1A (see CORE GE: (A1) -- Oral Communication);
- use (locate, analyze, and evaluate) supporting materials, including independent library research;
- synthesize ideas encountered in multiple readings; and
- construct effective arguments.

3. Content

- *Diversity.* Issues of diversity shall be incorporated in an appropriate manner.
- *Writing.* This course should emphasize those skills and activities in writing and thinking that produce 1) the persuasive argument, and 2) the critical essay, each of which demands analysis, interpretation, and evaluation. Writing assignments shall give students repeated practice in pre-writing, organizing, writing, revising, and editing. The number of writing assignments and their careful sequencing are as important as the total number of words written. Six to eight essays totaling a minimum of 8000 words are required. This minimum requirement excludes the final examination, journal writing, quizzes, or other informal or brief assignments. Although the majority of papers will be written outside of class, at least three essays shall be written in class. Students shall receive frequent evaluations from the instructor. Evaluative comments must be substantive, addressing the quality and form of writing.
- *Reading.* Reading for the course shall include useful models of writing for academic and general audiences; readings shall be used consistently with the course goal of enhancing ability in written communication and reading. A substantial portion of the reading should be devoted to analytical, critical, and argumentative essays. Instructors should help students develop and refine strategies for reading challenging material.
- *Research.* The course shall include an introduction to the library and to basic research strategies, including locating materials, evaluating them, using them effectively (e.g., quoting, paraphrasing, summarizing), and citing them properly. Instructors shall assign a traditional research paper or a series of short essays in which library research informs the student's position or thesis.

4. Support

Tutoring. Students may be required to attend tutoring sessions as a co-requisite to completing the course.

Class size. Classes shall normally be limited to 25 students. It is not acceptable to increase the number of students and use readers or teaching assistants for paper grading or discussion sections.

Grading. A/B/C/No Credit.

Prerequisites. Passage of Written Communication IA or approved equivalent course *and* passage of the English Proficiency Test (EPT), unless exempt.

Instructor qualifications

- an understanding and appreciation of the SJSU GE program;
- a doctorate (preferred but not required);
- college-level teaching experience or advanced (graduate) training in the subject matter of the course;
- a professional commitment to the learning needs of a diverse student body;
- sections designed for foreign students require substantial formal training and experience in teaching speakers of other languages, in addition to above requirements;
- teaching associates shall be allowed to teach a GE course only after training and under the close supervision of an expert in the field; and
- exceptions must be justified by the department.

5. Assessment

- *Common final exam.* All students taking a course to fulfill Written Communication 1B shall take an essay final, consonant with the goals and objectives of the course, to be graded holistically and to count 20 percent toward the course grade. This examination shall be constructed around two college-level reading passages.
- *Guidelines.* Any department offering a course to meet the requirement shall for each course write detailed course guidelines in accordance with these criteria. These departmental guidelines shall be distributed each semester to all faculty members teaching the course.
- Writing shall be assessed for correctness, clarity, and conciseness.
- In accordance with the approved assessment plan, the course coordinator/department chair will summarize the assessment results and attach them to the certification request.

CORE GE: (D) - SOCIAL SCIENCES

1. Goals

Social Science courses should increase the student's understanding of human behavior and social interaction in the context of value systems, economic structures, political institutions, social groups, and natural environments.

2. Student Learning

Students shall be able to identify and analyze the social dimension of society as a context for human life, the processes of social change and social continuity, the role of human

agency in those social processes, and the forces that engender social cohesion and fragmentation. Students will be able to:

- place contemporary developments in cultural, historical, environmental, and spatial contexts;
- identify the dynamics of ethnic, cultural, gender/sexual, age-based, class, regional, national, transnational, and global identities and the similarities, differences, linkages, and interactions between them; and
- evaluate social science information, draw on different points of view, and formulate applications appropriate to contemporary social issues.
 - *Human Behavior* students will be able to recognize the interaction of social institutions, culture, and environment with the behavior of individuals.

Comparative Systems, Cultures and Environments students will be able to compare and contrast two or more ethnic groups, cultures, regions, nations, or social systems.

Social Issues students will be able to apply multidisciplinary material to a topic relevant to policy and social action at the local, national, and/or international levels.

3. Content

- Students must complete at least one course each in Human Behavior, Comparative Systems, and Social Issues.
- *Diversity*. Issues of diversity shall be incorporated in an appropriate manner.
- *Writing*. The minimum writing requirement is 1500 words in a language and style appropriate to the discipline.
- All courses in Social Science should include content to promote all of the above competencies.

4. Support

Instructor qualifications

- an understanding and appreciation of the SJSU GE program;
- a doctorate (preferred but not required);
- college-level teaching experience or advanced (graduate) training in the subject matter of the course;
- a professional commitment to the learning needs of a diverse student body;
- sections designed for foreign students require substantial formal training and experience in teaching speakers of other languages, in addition to above requirements;
- teaching associates shall be allowed to teach a GE course only after training and under the close supervision of an expert in the field; and

- exceptions must be justified by the department.

5. Assessment

- Writing shall be assessed for correctness, clarity, and conciseness.
- In accordance with the approved assessment plan, the course coordinator/department chair will summarize the assessment results and attach them to the certification request.

6. American Institutions Requirement

American Institutions courses may satisfy Core Area D requirements if they meet the following conditions:

- consist of at least a six-unit package that is interdisciplinary and team-taught;
- focus on cultural pluralism; and
- meet the criteria for Institutions and Core Area D.

CORE GE: (E) HUMAN UNDERSTANDING AND DEVELOPMENT

1. Goals

Students will understand themselves as integrated physiological, social, and psychological entities who are able to formulate strategies for lifelong personal development. Courses shall address challenges confronting students who are entering the complex social system of the university, so that students can employ available university resources to support academic and personal development.

2. Student Learning

Students shall:

- recognize the physiological, social/cultural, and psychological influences on their well-being;
- recognize the interrelation of the physiological, social/cultural, and psychological factors on their development across the lifespan;
- use appropriate social skills to enhance learning and develop positive interpersonal relationships with diverse groups and individuals; and
- recognize themselves as individuals undergoing a particular stage of human development and recognize how their well-being is affected by the university's academic and social systems, and how they can facilitate their development within the university environment.

3. Content

- *Diversity.* Courses shall incorporate issues of diversity in an appropriate manner.
- *Writing.* The minimum writing requirement is 1500 words in a language and style appropriate to the discipline.

- Courses shall enable students to achieve the competencies described above by including:
 - a focus on the interdependence of the physiological, social/cultural, and psychological factors that contribute to the process of human development and determine the limitations, potential, and options of the individual across the lifespan;
 - an understanding of the university as a learning center for the integrated person, an introduction to its resources, and an appreciation for the intellectual and social vitality of the campus community; and
 - an inventory and evaluation of university-level learning skills (e.g. methods of inquiry, critical thinking, study skills, research skills, and information literacy), and an exploration of the application of these skills to the student's academic and personal development.

4. Support

- It is strongly recommended that students complete this course during their first two semesters of matriculation.
- *Instructor qualifications*
 - an understanding and appreciation of the SJSU GE program;
 - a doctorate (preferred but not required);
 - college-level teaching experience or advanced (graduate) training in the subject matter of the course;
 - a professional commitment to the learning needs of a diverse student body;
 - sections designed for foreign students require substantial formal training and experience in teaching speakers of other languages, in addition to above requirements;
 - teaching associates shall be allowed to teach a GE course only after training and under the close supervision of an expert in the field; and
 - exceptions must be justified by the department.

5. Assessment

- Writing shall be assessed for correctness, clarity, and conciseness.
- In accordance with the approved assessment plan, the course coordinator/department chair will summarize the assessment results and attach them to the certification request.

GRADUATION REQUIREMENTS

American Institutions

1. Goals

Courses in American Institutions should meet one or more of the following requirements: *U.S. History*, *U.S. Constitution*, and *California Government*. Students enrolled in these courses should be exposed to alternative interpretations of the historical events and political processes that have shaped the social, economic, and political systems in which they live.

These courses will provide a multicultural framework, including both conflict and consensus perspectives, of the choices and options available to individuals and groups in their social, economic, and political relations. The focus of the courses is the growth of a multicultural society and the interactions, including cooperation and conflict, as these many and varied peoples have dealt with social, economic, and political issues.

2. Student Learning

To fulfill the requirements for *U.S. History*, students should consider the principal events, developments, ideas, politics, and international relations in all the territories now in the United States from the beginnings of this society until the present. While considering these trends, students should be asked to analyze certain themes including:

- **earliest inhabitants, colonization, the American Revolution and the early Republic**, territorial expansion, economic development, Civil War and Reconstruction, foreign relations, Populism, Progressivism, the New Deal, wars and conflicts of the 20th century, the Fair Deal, the Great Society, McCarthyism, the civil rights movement, mobilization of minorities, new feminism, and modern times. Included within the study of these themes should be a consideration of women and gender relations from the colonial period to the present; the history and experience of racial and ethnic minorities; emigration to the United States and the experiences of these immigrants to this country; and patterns of race and class relations from the period of European colonization to the present.
- To fulfill the requirements for *U.S. Constitution and California Government*, students should study how political decisions are made, their consequences for individuals and society, and how individuals and groups may affect the decision-making process. As students study the meaning and content of the democratic process as it has evolved in the United States and California, at a minimum, they should recognize:
 - the foundations of the political system, including the evolution of the philosophies of the U.S. and California constitutions, political culture, separation of powers, bureaucracy, federalism, and relations among various levels of government. Students should also analyze the evolving institutions of government, including a study of the powers of the President, Congress, and the Judiciary;
 - the links between the people and government, including participation and voting, political parties, interest groups, and public opinion and socialization. Students should also analyze the rights and obligations of citizens, the tension between various freedoms of expression and due process and the maintenance of order, and the efforts to end racial and gender discrimination in both the public and private sectors of society; and
 - the operations of California government, including the similarities and differences between the California and U.S. Constitutions, the relationship between state and local government in California, the basic issues of California politics, and a careful assessment of the impact of demographic changes on the history and politics of the state and the nation.

3. Content

- *Diversity*. Issues of diversity shall be incorporated in an appropriate manner.
- *Writing*. The minimum writing requirement is 1500 words in a language and style appropriate to the discipline.

- All courses in American Institutions should include content to promote all of the above competencies.

4. Support

- *Instructor Qualifications*
 - an understanding and appreciation of the SJSU GE program;
 - a doctorate (preferred but not required);
 - college-level teaching experience or advanced graduate training in history or political science or interdisciplinary fields with emphasis in history or political science, knowledge and understanding of the roles of major United States ethnic and social groups;
 - a professional commitment to the learning needs of a diverse student body;
 - sections designed for students require substantial formal training and experience in teaching speakers of other languages, in addition to the above requirements;
 - teaching associates shall be allowed to teach a GE course only after training and under the close supervision of an expert in the field; and
 - exceptions must be justified by the department.

5. Assessment

- Writing shall be assessed for correctness, clarity, and conciseness.
- In accordance with the approved assessment plan, the course coordinator/department chair will summarize the assessment results and attach them to the certification request.

6. General Education Requirement

- American Institutions courses may satisfy Core General Education requirements if they meet the following conditions:
 - consist of at least a six-unit package that is interdisciplinary and team-taught;
 - focus on cultural pluralism; and
 - meet the criteria for Institutions and the Core GE Area C and/or D.

Advanced General Education: (R)

EARTH & ENVIRONMENT

1. Goals

Students will cultivate knowledge of the scientific study of the physical universe and its life forms. Students will understand and appreciate the interrelationship of science and human beings to each other.

2. Student Learning

Within the particular scientific content of the course, a student should be able to:

- demonstrate an understanding of the methods and limits of scientific investigation;
- distinguish science from pseudo-science; and
- apply a scientific approach to answer questions about the earth and environment.

3. Content

- *Diversity.* Issues of diversity shall be incorporated in an appropriate manner.
- *Writing.* Written assignments should include both in-class and out-of-class writing, giving students practice and feedback throughout the semester. A single final term paper would not satisfy the requirement. A minimum of 3000 words of writing is required in a language and style appropriate for the discipline.
- Courses will focus on the scientific study of life forms or the physical universe, based on knowledge and skills established in Core GE Science.

4. Support

Prerequisites

- Passage of the Writing Skills Test (WST)
- Upper division standing (56 units)
- Completion of CORE GE

Pedagogical Approach

- Courses shall focus on issues or present perspectives from different academic disciplines.
- Courses shall require students to apply basic skills (reading, writing, speaking, critical thinking, research, and mathematics) and to utilize knowledge gained in CORE GE courses.

Active Learning

- Each course shall provide for active student participation. The course may not be exclusively lecture format.
- Assignments must utilize library research and oral and written communication skills.
- Courses should promote reflective processes and critical analysis.

Primary sources. Course materials (readings, research) must include primary sources.

Instructor qualifications

- an understanding and appreciation of the SJSU GE program;
- a doctorate (preferred but not required);

- college-level teaching experience or advanced (graduate) training in the subject matter of the course;
- a professional commitment to the learning needs of a diverse student body;
- sections designed for foreign students require substantial formal training and experience in teaching speakers of other languages, in addition to above requirements;
- teaching associates shall be allowed to teach a GE course only after training and under the close supervision of an expert in the field; and
- exceptions must be justified by the department.

5. Assessment

- Writing shall be assessed for correctness, clarity, and conciseness.
- In accordance with the approved assessment plan, the course coordinator/department chair will summarize the assessment results and attach them to the certification request.

Advanced General Education: (S)

SELF, SOCIETY, & EQUALITY IN THE U.S.

1. Goals

Students will study the interrelationship of individuals, and racial groups, and cultural groups to understand and appreciate issues of diversity, equality, and structured inequality in the U.S., its institutions, and its cultures.

2. Student Learning

After successfully completing the course, students shall be able to:

- describe how religious, gender, ethnic, racial, class, sexual orientation, disability, and/or age identity are shaped by cultural and societal influences in contexts of equality and inequality;
- describe historical, social, political, and economic processes producing diversity, equality, and structured inequalities in the U.S.;
- describe social actions by religious, gender, ethnic, racial, class, sexual orientation, disability, and/or age groups leading to greater equality and social justice in the U.S.; and
- recognize and appreciate constructive interactions between people from different cultural, racial, and ethnic groups in the U.S.

3. Content

- *Diversity.* Issues of diversity shall be incorporated in an appropriate manner.

- *Writing.* Written assignments should include both in-class and out-of-class writing, giving students practice and feedback throughout the semester. A single final term paper would not satisfy the requirement. A minimum of 3000 words of writing is required in a language and style appropriate for the discipline.
- All courses in Self, Society, and Equality in the U.S. should include content to promote all of the above competencies.

4. Support

Prerequisites

- Passage of the Writing Skills Test (WST)
- Upper division standing (56 units)
- Completion of CORE GE

Pedagogical Approach

- Courses shall focus either on issues or present perspectives from different academic disciplines.
- Courses shall require students to apply basic skills (reading, writing, speaking, critical thinking, research, and mathematics) and to utilize knowledge gained in CORE GE courses.

Active Learning

- Each course shall provide for active student participation. The class may not be exclusively lecture format.
- Assignments must utilize library research and oral and written communication skills.
- Courses should promote reflective processes and critical analysis.

Primary sources. Course materials (readings, research) must include primary sources.

Instructor qualifications

- an understanding and appreciation of the SJSU GE program;
- a doctorate (preferred but not required);
- college-level teaching experience or advanced (graduate) training in the subject matter of the course;
- a professional commitment to the learning needs of a diverse student body;
- sections designed for foreign students require substantial formal training and experience in teaching speakers of other languages, in addition to above requirements;
- teaching associates shall be allowed to teach a GE course only after training and under the close supervision of an expert in the field; and

- exceptions must be justified by the department.

5. Assessment

- Writing shall be assessed for correctness, clarity, and conciseness.
- In accordance with the approved assessment plan, the course coordinator/department chair will summarize the assessment results and attach them to the certification request.

Advanced General Education: (V) CULTURE, CIVILIZATION, & GLOBAL UNDERSTANDING

1. Goals

Courses in Culture, Civilization, and Global Understanding should give students an appreciation for human expression in different cultures and an understanding of how that expression has developed over time in different cultures. These courses should also increase students' understanding of how other cultural traditions have influenced American culture and society, as well as how cultures in general both develop distinctive features and interact with other cultures.

2. Student Learning

Students shall be able to:

- compare systematically the ideas, values, images, cultural artifacts, economic structures, technological developments, or attitudes of people from different societies;
- identify the historical context of ideas and cultural practices and their dynamic relations to other historical contexts; and
- explain how a culture changes in response to internal and external pressures.

3. Content

- *Diversity.* Issues of diversity shall be incorporated in an appropriate manner.
- *Writing.* Written assignments should include both in-class and out-of-class writing, giving students practice and feedback throughout the semester. A single final term paper would not satisfy the requirement. A minimum of 3000 words of writing is required in a language and style appropriate for the discipline.
- Courses will address significant achievements of the human intellect and imagination in a comparative context to understand and appreciate different ideas, cultures, values, religions, institutions, languages, and peoples of the world.

4. Support

- ***Prerequisites***
 - Passage of the Writing Skills Test (WST)
 - Upper division standing (56 units)
 - Completion of CORE GE
- ***Pedagogical Approach***
 - Courses shall focus on issues or present perspectives from different academic disciplines.
 - Courses shall require students to apply basic skills (reading, writing, speaking, critical thinking, research, and mathematics) and to utilize knowledge gained in CORE GE courses.
- ***Active Learning***
 - Each course shall provide for active student participation. The course may not be exclusively lecture format.
 - Assignments must utilize library research and oral and written communication skills.
 - Courses should promote reflective processes and critical analysis.
- ***Primary sources.*** Class materials (readings, research) must include primary sources.
- ***Instructor qualifications***
 - an understanding and appreciation of the SJSU GE program;
 - a doctorate (preferred but not required);
 - college-level teaching experience or advanced (graduate) training in the subject matter of the course;
 - a professional commitment to the learning needs of a diverse student body;
 - sections designed for foreign students require substantial formal training and experience in teaching speakers of other languages, in addition to above requirements;
 - teaching associates shall be allowed to teach a GE course only after training and under the close supervision of an expert in the field; and
 - exceptions must be justified by the department.

5. Assessment

- Writing shall be assessed for correctness, clarity, and conciseness.
- In accordance with the approved assessment plan, the course coordinator/department chair will summarize the assessment results and attach them to the certification request.

Advanced General Education: (Z)

WRITTEN COMMUNICATION II

1. Goals

Students will develop advanced proficiency in college-level writing and appropriate contemporary research strategies and methodologies to communicate effectively to both specialized and general audiences. Written Communication II should reinforce and advance the abilities developed in Written Communication IA and IB, and broaden and deepen these to include mastery of the discourse peculiar to the discipline in which the course is taught.

2. Student Learning

Students shall write complete essays that demonstrate college-level proficiency. Students shall be able to:

- refine the competencies established in Written Communication IA and IB (see pages 12 & 21);
- express (explain, analyze, develop, and criticize) ideas effectively, including ideas encountered in multiple readings and expressed in different forms of discourse; and
- organize and develop essays and documents for both professional and general audiences, including appropriate editorial standards for citing primary and secondary sources.

3. Content

- *Diversity.* Issues of diversity shall be incorporated in an appropriate manner.
- *Writing.* Written assignments should include both in-class and out-of-class writing, giving students practice and feedback throughout the semester. A single final term paper would not satisfy the requirement. Assignments will total a minimum of 8000 words assigned throughout the semester, providing frequent practice and feedback for improving application skills.
- *Reading.* Readings used in the course should be models of excellence.
- *Discipline.* Written Communication II courses are discipline specific. All courses will use language and forms of writing appropriate to the discipline.

4. Support

- *Class structure.* Classes shall normally have no more than 25 students per section, with a maximum of 100 students per instructor and no class shorter than six weeks.
- *Prerequisites*
 - Passage of the Writing Skills Test (WST)
 - Upper division standing (56 units)
 - Completion of CORE GE
- *Pedagogical Approach*
 - Courses shall focus on issues or present perspectives from different academic disciplines.

- Courses shall require students to apply basic skills (reading, writing, speaking, critical thinking, research, and mathematics) and to utilize knowledge gained in CORE GE courses.
- **Active Learning**
 - Each course shall provide for active student participation. The course may not be exclusively lecture format.
 - Assignments must utilize library research and oral and written communication skills.
 - Courses should promote reflective processes and critical analysis.
- **Primary sources.** Course materials (readings, research) must include primary sources.
- **Instructor qualifications**
 - an understanding and appreciation of the SJSU GE program;
 - a doctorate (preferred but not required);
 - college-level teaching experience or advanced (graduate) training in the subject matter of the course;
 - a professional commitment to the learning needs of a diverse student body;
 - sections designed for foreign students require substantial formal training and experience in teaching speakers of other languages, in addition to above requirements;
 - teaching associates shall be allowed to teach a GE course only after training and under the close supervision of an expert in the field; and
 - exceptions must be justified by the department.

5. Assessment

- Writing shall be assessed for correctness, clarity, and conciseness.
- In accordance with the approved assessment plan, the course coordinator/department chair will summarize the assessment results and attach them to the certification request.

ASSESSING STUDENT LEARNING OUTCOMES

The *Board of General Studies* is charged with the oversight of the GE program at SJSU. A competency-based assessment activity has been incorporated into the GE course certification process in order to help the Board evaluate how well the GE program generally achieves the stated competency goals outlined in these *Guidelines*. The Board also will be able to pinpoint any strengths and weaknesses in aggregate student performance related to specific GE areas and to pursue appropriate strategies in conjunction with SJSU faculty, staff, and students.

The GE assessment activity involves GE faculty, departments, and the Board in the design of the initial assessment plan, the collection of assessment information, and the certification of all GE courses. To be considered for certification by the Board, new GE course proposals must include a specific assessment plan. Courses submitted for re-certification must provide a specific assessment plan as well as a departmental assessment analysis covering the time period since the last certification date.

BASIC ASSESSMENT REQUIREMENTS FOR GE COURSE CERTIFICATION

Certification of all new GE courses requires departments to submit:

1. An assessment plan and student learning contract conjointly with the request for GE course certification to the Office of Undergraduate Studies.

Re-certification of all existing GE courses requires departments to submit:

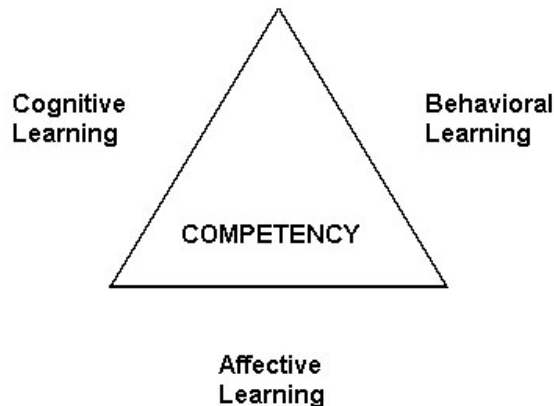
1. An assessment plan and student learning contract conjointly with the request for GE course certification to the Office of Undergraduate Studies;

2. A statement from the Course Coordinator or Department Chair summarizing the assessment results for all semester sections of that GE course; and

3. An updated file of assessment data and instructor analyses for all semester sections of that GE course, covering the time period since the last certification date.

OVERVIEW OF THE COMPETENCY MODEL FOR ASSESSMENT

Global program competency goals and focused area competency goals guide the assessment of every course within the General Education Program. Each competency goal serves as a broad *conceptual* category comprising a mix of cognitive (knowledge), behavioral (skills), and affective (attitude) learning objectives. The following diagram portrays this three-dimensional definition of competency.



These *Guidelines* provide lists of global program and focused area competencies. The Board of General Studies, in conjunction with area experts at SJSU, defined these GE competencies during a series of faculty conversations. These competencies are to be used in the development of learning objectives and assessment measures for courses under consideration for GE certification.

GE faculty are being asked to align their courses with the set of competency goals common to their GE area. Although competency goals and learning objectives are a useful articulation of our intent as educators, they should not dominate the entire educational experience. Good teaching and learning often occur informally and spontaneously through the interaction of instructors and their students. Additional learning will and should occur that has not been previewed in the learning objectives.

Assessment Term Definitions

Competency goal

A competency goal is a broad conceptual statement of what students are expected to learn. Competency goals are often more appropriate for describing courses than daily lesson plans. A competency goal for a course may be, "*Students should acquire skills of quantitative analysis and reasoning*" or "*Students should develop the ability to think creatively and independently about the use of language.*" A course may have several broad, often esoteric, competency goals.

Competency goals need to be operationalized as a mix of cognitive (knowledge), behavioral (skills), and affective (attitude) learning objectives.

Learning objective

Learning objectives are usually more precise statements of the learning that will occur, generally within a course activity. Objectives are not statements of content or topics, nor are they statements of the intended teaching strategies; rather, they are statements of what a student is expected to know and be able to do upon completion of the learning exercise. A sample learning objective may be, "*The student should comprehend the relations among fundamental concepts in Newtonian mechanics,*" or "*The student should understand the principle of equilibrium in Keynesian macroeconomics.*" The best objectives will neither be too vague nor overly precise.

Learning objectives consist of two essential parts: an action verb and a subject content reference. They are written from the perspective of the learner; they are what the learner can do upon completion of a class or module. Appendix A1 offers a look at writing learning objectives, this appendix also, and displays a list of action verbs that can be useful in the writing of learning objectives.

Assessment measure

Assessment measures are the individual exercises or sections of assessment tools and processes (tests, portfolios, interviews, projects etc.) that relate directly to specific learning objectives. Each measure is designed to enable the instructor to gather information about students' performance on a specific learning objective.

The purpose of assessment can be diagnostic, formative, or summative. Diagnostic assessment pretests students' knowledge and skills, their learning needs, and their motivational and interest levels. By examining the results of diagnostic assessment, instructors can determine where to begin instruction and what concepts or skills to emphasize. Formative assessment focuses on the process of learning. Formative assessment is continuous and is meant to inform the student and the instructor of the student's progress toward the learning objectives. The main purposes of summative assessment are to determine knowledge, skills, abilities, and attitudes that have developed over a given period of time; to summarize student progress; and to report this progress to students and other concerned individuals.

An assessment tool or process (e.g., observation, testing, oral and written product assessment, and performance assessment) may be used to gather information about student progress toward the GE competency. One instrument may measure student performance on multiple learning objectives. As a rule, students should be given opportunities to demonstrate the extent of their knowledge, skills, and attitudes in a variety of ways. In order to build reliability into GE assessment, a common GE assessment plan should be negotiated among all instructors of the GE course and implemented in all sections of the course.

Academic standard

The academic standard is the performance level that is deemed adequate for a student to be considered competent in a specific GE area. The academic standard will correspond to some level of performance demonstrated via the assessment process. Comparing assessment information to the academic standard allows the instructor to make a decision or judgment regarding the progress of a student's learning.

Assessment and evaluation should help students. Instructors should provide positive feedback and encourage students to participate actively in their own assessment in order to foster lifelong learning and enable them to transfer knowledge and abilities to their life pursuits. Assessment and evaluation should be free of bias.

FULFILLING THE MISSION OF ASSESSMENT IN THE GE PROGRAM

Developing common course assessment plans for GE courses

Who will develop the common course assessment plan for a GE course?

Various options exist for identifying the key players in GE assessment planning.

- 1. The Department Chair or GE Course Coordinator may contact all department faculty responsible for teaching in a specific GE area and convene an *ad hoc* course assessment group to develop a common assessment plan.
- 2. An inter-departmental assessment group may be formed when (a) a course crosses departments, e.g., 100W, or (b) GE courses in different departments have similar learning objectives and are satisfying the same GE area.
- 3. Individual faculty members who are the sole instructors of a GE course may by choice work alone or with other expert faculty members on the development of the course assessment plan.

The Director of Assessment in the Office of Undergraduate Studies is available on an appointment basis to provide support to all faculty engaged in assessment planning.

How do you create a common course assessment plan for a GE course?

- **Step One:** Locate in these *Guidelines* the GE competencies that relate to the GE area of interest.
- Step Two:** Define specific cognitive, behavioral, or affective learning objectives for each of the competencies identified in step one. Take into consideration the support discussion on learning objectives presented in Appendix A1.
- Step Three:** Design one or a mix of assessment techniques that measure the learning objectives defined in step two. A menu of assessment techniques and their uses is provided in Appendix A3. The Office of Undergraduate Studies will maintain a file of assessment strategies that will facilitate the development of assessment plans.
- Step Four:** Set the academic standard for your assessment method. Describe what will constitute an A, B, and C grade for each of your assessment measures selected in step three. Describe the type of written feedback students should expect from an instructor using this assessment method.
- Step Five:** Create a Contract for Student Learning in the GE course, using the materials and information gathered in steps one through four. This contract will be attached to all course syllabi disseminated for all sections of the GE course.

Implementing the assessment plans for GE courses

Who implements the assessment plan for a GE course?

The assessment of a GE course is conducted by individual course instructors, using the assessment plans that have been filed with the Office of Undergraduate Studies.

How is the assessment plan implemented?

The instructor collects the data, summarizes the assessment results, and submits this summary and the data set to the Course Coordinator, or in his/her absence, to the Department Chair on the appropriate due date each semester.

The Course Coordinator or the Department Chair summarizes the assessment results for all GE courses and sections within that Department and submits the Coordinator summary and the instructors' summaries to the Office of Undergraduate Studies. The data set is returned to the instructor and kept for the next re-certification date.

How often is the assessment plan implemented?

Departments will collect this material for each section of each GE course taught during an academic semester, including summer and winter sessions.

GUIDING PRINCIPLES FOR THE GE ASSESSMENT PROCESS AT SJSU.

The following principles will guide the GE assessment process at SJSU:

- 1. Faculty must be given as much autonomy and freedom from bureaucratic interference as possible.
- 2. Faculty must be given control over the data that the assessment will yield. This allays fears that assessment results might be used to harm individuals or departments, and allows assessment to proceed within the norms of scholarly inquiry.
- 3. Occasional interdisciplinary meetings should be held, because contact among individuals from different disciplines fosters creativity.
- 4. The leadership and commitment of central administration are essential to the success of assessment.
- 5. Formal review of course-level assessment plans will focus on the fit between the selected measures of student achievement planned for a GE course and the intended competency goals, set forth in these Guidelines, for the GE area which is served by that course.
- 6. Formal review of instructor-provided assessment data and analyses will focus on the aggregate level of student achievement in each of the competency categories relevant to the GE course being assessed.
- 7. GE assessment data will not be used for purposes related to the formal evaluation of individual instructors for retention, tenure, or promotion.

8. No person at SJSU, including the course instructor, will use GE assessment procedures to document the performance of individual students except in the regular calculation of class grades or the legitimate assignment of honors.

9. Every caution must be taken to separate validation of the student as a person from assessment of the student's competency in a GE area.

In addition, a set of principles of good practice for assessing student learning has been published by the American Association for Higher Education and is found in Appendix A2.

APPENDIX A1

AN OVERVIEW OF LEARNING OBJECTIVES

There is a range of approaches for defining learning objectives.

One approach is to limit objectives to statements of behavioral objectives; that is, if the objective has been achieved, there must be a clearly observable outcome. Generally, however, objectives need not focus solely on observable behavior. When we teach, we aim to develop understandings and attitudes that may be difficult to measure. An approach to writing learning objectives relevant to the nature of a particular subject or course should be chosen.

Learner-centered objectives

Focus on learning outcomes rather than on instructor or instructional goals. Rather than phrase objectives in the form of "what this course will do" or "the topics this course will cover," focus on what students will accomplish, and what knowledge and skills they will demonstrate.

Topic-Centered: This course will instill an understanding of the scientific method.

Learner-Centered: The learner will distinguish between valid and invalid conclusions.

Representing various domains

Using Bloom's Taxonomy (as presented on following page--knowledge, comprehension, application, analysis, synthesis, evaluation) is one way to frame your objectives. Aim for a distribution of objectives, with a disposition to the higher domains.

Creating objectives that stress "knowing" make it all too easy and tempting to create an environment in which "telling," or knowledge transmission, is the primary mode of learning. Be wary of objectives that create a passive learning environment. "Recognize," "explain," and "describe" are often translated into "make students memorize."

Instead, find activities in which performance of certain functions requires the application or utilization of certain knowledge. This results in more active, and thus more effective, learning. For example:

Knowledge: Become aware of the resources available for small businesses.

Performance: Evaluate a set of on-line resources you discovered for small businesses

Performance actually places knowledge in context, which increases learning and recall, establishes a rationale for students, and elevates motivation.

-
- Major categories in the taxonomy of educational objectives (Bloom 1956)

1. *Knowledge*: Knowledge is (here) defined as the remembering of previously learned materials. Recalling appropriate information.

Sample verbs: *defines; enumerates; identifies; labels; lists; matches; names; reads; reproduces; restates; selects; states; views*

2. *Comprehension*: Grasping the meaning of material.

Sample verbs: *classifies; cites; converts; describes; discusses; estimates; explains; generalizes; gives examples; paraphrases; summarizes; understands*

3. *Application*: The use of learned material in new and concrete situations.

Sample verbs: *acts; administers; articulates; assesses; charts; collects; computes; constructs; contributes; controls; determines; develops; discovers; establishes; extends; implements; includes; informs; instructs; operationalizes; participates; predicts; prepares; preserves; produces; projects; provides; records; relates; reports; shows; solves; takes; teaches; transfers; uses; utilizes*

4. *Analysis*: The breaking down of material into its component parts so that its organizational structure may be understood.

Sample verbs: *breaks down; correlates; diagrams; differentiates; discriminates; distinguishes; focuses; illustrates; infers; limits; outlines; points out; prioritizes; recognizes; separates; subdivides*

5. *Synthesis*: Putting parts together to form a whole.

Sample verbs: *adapts; anticipates; categorizes; collaborates; combines; communicates; compares; compiles; composes; contracts; contrasts; creates; designs; devises; expresses; facilitates; formulates; generates; incorporates; individualizes; initiates; integrates; intervenes; models; modifies; negotiates; plans; progresses; rearranges; reconstructs; reinforces; reorganizes; revises; structures; substitutes; validates*

6. *Evaluation*: Judging the value of material for a given purpose.

Sample verbs: *appraises; concludes; confronts; criticizes; critiques; decides; defends; interprets; judges; justifies; reframes; translates*

(<http://weber.u.washington.edu/~krumme/guides/bloom.html>) Adapted from: Bloom Benjamin S. and David R. Krathwohl, (1956). "Taxonomy of Educational Objectives: the classification of educational goals", by a committee of college and university examiners. *Handbook I: Cognitive Domain*. New York, Longmans, Green, 1956.

Learning objectives - who benefits?

Learning objectives are an important part of the educational process, because they help clarify the relationship between the learner and the educator. The writing of learning objectives assists educators in designing course content, teaching strategies or processes, and appropriate assessment methods.

Learning objectives benefit students in a number of ways. After reading the learning objectives, Students should have a clearer understanding of what they will learn should they successfully complete the course, subject, or task. Learning objectives also indicate to students what they may be expected to demonstrate in assignments and examinations.

Writing learning objectives

The task of developing realistic and useful learning objectives might be approached with these simple guidelines in mind:

- Remember to think from the student's perspective. What will students be able to do at the end of the learning exercise that they perhaps could not do at the beginning?
- Refer to the list of verbs in the table that follows later in this Appendix.
- Strive for higher level verbs that go beyond knowledge or comprehension and that require analysis, evaluation, or synthesis, as suggested by Bloom's Taxonomy.

- There are no fixed rules on the number of learning objectives; this depends on whether you are considering the outcomes of a course, subject, or particular lesson or task.
- Consider how performance of the objectives will be evaluated. Choose teaching strategies relevant to the nature of the learning expected and assessment methods that reflect the action verbs you have used.

Evaluating your objectives

1. Are the objectives appropriate to your GE area competency goals?
2. Is there a balance of cognitive, behavioral and affective learning objectives?
3. Are the objectives in synch with the goals of assessment?
4. Are the objectives attainable within the course time period?

SAMPLE ACTION VERBS* FOR WRITING LEARNING OBJECTIVES

Creative Behaviors

Alter ___ Ask ___ Change ___ Create ___ Design ___ Develop ___ Generalize ___ Listen ___ Modify

Paraphrase ___ Predict ___ Question ___ Rearrange ___ Recombine ___ Reconstruct ___ Regroup

Rename ___ Reorganize ___ Reorder ___ Rephrase ___ Restate ___ Restructure ___ Retell ___ Revise

Rewrite ___ Simplify ___ Synthesize ___ Systematize ___ Vary

Problem Solving Behaviors

Analyze ___ Appraise ___ Combine ___ Compare ___ Conclude ___ Contrast ___ Criticize ___ Decide

Deduce ___ Derive ___ Determine ___ Diagnose ___ Evaluate ___ Explain ___ Formulate ___ Generalize

Generate ___ Induce ___ Infer ___ Interpret ___ Plan ___ Relate ___ Structure ___ Substitute ___

Translate ___

General Discriminative Behaviors

Choose___Collect___Define___Describe___Detect___Differentiate___Discriminate___

Distinguish___Estimate___Identify___Indicate___Isolate___List___Locate___Match___

Omit___Order___Pick___Place___Point___Recognize___Select___Separate

Laboratory and Clinical Behaviors

Apply___Calibrate___Compute___Conduct___Connect___Convert___Decrease___

Demonstrate___Dissect___Feed___Grow___Increase___Insert___Keep___Lengthen___

Limit___Manipulate___Operate___Plant___Prepare___Remove___Replace___Report___

—

Reset___Set___Specify___Straighten___Time___Transfer___Use___Weigh___

- As listed on the web site page

<http://cwis.usc.edu/hsc/med-sch/med-ed/attach-b.html>. The Department of Medical Education at the University of Southern California School of Medicine

CASE EXAMPLE: WRITING LEARNING OBJECTIVES

Sample Competency Goal Statements for the Writing Competency

Students will be able to:

- recognize that writing is a constructive and recursive process
- practice the behaviors of effective writers
- write fluently and confidently for a variety of purposes and audiences, employing appropriate formats.

Sample Learning Objectives for the Writing Competency

The competency goal statement "practice the behaviors of effective writers" might be partially operationalized as follows:

Upon finishing this course module, students will be able to:

- generate and explore ideas for writing using pre-writing techniques such as brainstorming, clustering, discussing, dramatizing, reading/listening/viewing, experiencing
- plan for writing in ways such as outlining, listing, charting, webbing, and creating story frames or sociograms
- plan for writing using a variety of graphic and written structures
- shape and develop pre-writing into a written draft by using formats appropriate to purpose and audience
- recognize and sequence relevant ideas appropriately within identified formats
- use a first-person point of view, and experiment with the third-person point of view
- choose a variety of appropriate points of view when writing
- reflect upon one's own writing, and revise for clarity of meaning and appropriate detail by adding, rearranging, or deleting ideas

APPENDIX A2

PRINCIPLES OF GOOD PRACTICE FOR ASSESSING STUDENT LEARNING

These principles were developed under the auspices of the AAHE Assessment Forum with support from the Fund for the Improvement of Postsecondary Education with additional support for publication and dissemination from the Exxon Education Foundation. Copies may be made without restriction. The authors are Alexander W. Astin, Trudy W. Banta, K. Patricia Cross, Elaine El-Khawas, Peter T. Ewell, Pat Hutchings, Theodore J. Marchese, Kay M. McClenney, Marcia Mentkowski, Margaret A. Miller, E. Thomas Moran, and Barbara D. Wright.

1. The assessment of student learning begins with educational values. Assessment is not an end in itself but a vehicle for educational improvement. Its effective practice, then, begins with and enacts a vision of the kinds of learning we most value for students and strive to help them achieve. Educational values should drive not only what we choose to assess but also how we do so. Where questions about educational mission and values are skipped over, assessment threatens to be an exercise in measuring what's easy, rather than a process of improving what we really care about.

2. Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time. Learning is a complex process. It entails not only what students know but what they can do with what they know; it involves not only knowledge and abilities but values, attitudes, and habits of mind that affect both academic success and performance beyond the classroom. Assessment should reflect these understandings by employing a diverse array of methods, including those that call for actual performance, using them over time so as to reveal change, growth, and increasing degrees of integration. Such an approach aims for a more complete and accurate picture of learning, and therefore firmer bases for improving our students' educational experience.

3. Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes. Assessment is a goal-oriented process. It entails comparing educational performance with educational purposes and expectations--these derived from the institution's mission, from faculty intentions in program and course design, and from knowledge of students' own goals. Where program purposes lack specificity or agreement, assessment as a process pushes a campus toward clarity about where to aim and what standards to apply; assessment also prompts attention to where and how program goals will be taught and learned. Clear, shared, implementable goals are the cornerstone for assessment that is focused and useful.

4. Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes. Information about outcomes is of high importance; where students "end up" matters greatly. But to improve outcomes, we need to know about student experience along the way--about the curricula, teaching, and kind of student effort that lead to particular outcomes. Assessment can help us understand which students learn best under what conditions; with such knowledge comes the capacity to improve the whole of their learning.

5. Assessment works best when it is ongoing, not episodic. Assessment is a process whose power is cumulative. Though isolated, "one-shot" assessment can be better than none, improvement over time is best fostered when assessment entails a linked series of cohorts of students; it may mean collecting the same examples of student performance or using the same instrument semester after semester. The point is to monitor progress toward intended goals in a spirit of continuous improvement. Along the way, the assessment process itself should be evaluated and refined in light of emerging insights.

6. Assessment fosters wider improvement when representatives from across the educational community are involved. Student learning is a campus-wide responsibility, and assessment is a way of enacting that responsibility. Thus, while assessment efforts may start small, the aim over time is to involve people from across the educational community. Faculty play an especially important role, but assessment's questions can't be fully addressed without participation by student-affairs educators, librarians, administrators, and students. Assessment may also involve individuals from beyond the campus (alumni/ae, trustees, employers) whose experience can enrich the sense of appropriate aims and standards for learning. Thus understood, assessment is not a task for small groups of experts but a collaborative activity; its aim is wider, better-informed attention to student learning by all parties with a stake in its improvement.

7. Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about. Assessment recognizes the value of information in the process of improvement. But to be useful, information must be connected to issues or questions that people really care about. This implies assessment approaches that produce evidence that relevant parties will find credible, suggestive, and applicable to decisions that need to be made. It means thinking in advance about how the information will be used, and by whom. The point of assessment is not to gather data and return "results"; it is a process that starts with the questions of decision-makers, that involves

them in the gathering and interpreting of data, and that informs and helps guide continuous improvement.

8. Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change. Assessment alone changes little. Its greatest contribution comes on campuses where the quality of teaching and learning is visibly valued and worked at. On such campuses, the push to improve educational performance is a visible and primary goal of leadership; improving the quality of undergraduate education is central to the institution's planning, budgeting, and personnel decisions. On such campuses, information about learning outcomes is seen as an integral part of decision making, and avidly sought.

9. Through assessment, educators meet responsibilities to students and to the public. There is a compelling public stake in education. As educators, we have a responsibility to the publics that support or depend on us to provide information about the ways in which our students meet goals and expectations. But that responsibility goes beyond the reporting of such information; our deeper obligation--to ourselves, our students, and society--is to improve. Those to whom educators are accountable have a corresponding obligation to support such attempts at improvement.

APPENDIX A3

SAMPLE ASSESSMENT TECHNIQUES AND ACTIVITIES

METHOD TYPE	DESCRIPTION	EVALUATORS
<i>WHAT</i>	<i>HOW</i>	<i>WHO</i>
Competency-based observations	Observations of learning can be recorded as commentary notes or on checklists or rating scales.	<ul style="list-style-type: none"> • GE course instructors • External area experts • Peer students
Comprehensive portfolios	Students collect and present work that reflects their individual efforts and progress on all of the GE area competency goals. Students should be involved in the selection of work to be included, goal setting for personal learning, and self-assessment.	Data collection: <ul style="list-style-type: none"> • Students themselves Portfolio evaluation: <ul style="list-style-type: none"> • GE course instructors • External area experts • Peer students • Students themselves
Interviews/conferences with simulation of real world cases to estimate student real-time response	Behavioral interview questions can be developed to assess student competencies. Simulations and criteria for evaluating	<ul style="list-style-type: none"> • GE course instructors • External area experts

	responses can be standardized.	
Competency-driven major projects and presentations (live or video-taped)	Includes range of activities: written reports, visual work, oral presentations, or projects, which combine multiple media. Evaluative comments can be recorded as anecdotal notes or on checklists or rating scales.	<ul style="list-style-type: none"> • GE course instructors • External area experts • Peer students
Discrete competency-based course assignments done alone or in groups	Case studies, in-basket exercises, problem sets or other assignments can be related to specific learning outcomes or competency goals.	<ul style="list-style-type: none"> • GE course instructors
Quizzes and examinations	Quizzes and examinations are most often used for assessing students' knowledge of content. Normally pre and post testing provides more information about change in student learning.	<ul style="list-style-type: none"> • GE course instructors • External examining agencies
Surveys and instruments	Surveys, when properly administered, can provide data on change in affective learning (attitude).	<ul style="list-style-type: none"> • Certified or trained survey administrators
Internships or practica	Student performance in external real-world roles can be recorded as commentary notes or on checklists or rating scales.	<ul style="list-style-type: none"> • External supervisors • GE course instructors • Students themselves

APPENDIX A4

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