

Cornerstones Task Force # 1

“Learning for the 21st Century”

**** Draft Report ****

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Introduction

The mission of Task Force One was defined because of a crisis. The crisis is one of **opportunity**. Ironically, it is prompted by the recovery of the California economy which has been buffeted by recession and cutbacks in national defense. Just as California's aggregate economic numbers rebound, overall employment grows, and the recession ends, we face a society of ever-deepening division and an economy of shrinking opportunity for many of our people.

How can this be? Put simply, California's new economy will best employ those who are well-educated, competent to move easily among careers and employers, and able to constantly upgrade their knowledge and skills. Californians who lack adequate education coupled with skills and competencies useful across career lines, especially those who have not received at least a college degree, will find less opportunity, less advancement, and less earning capacity.

The numbers are compelling. They are reflected in both national and international trends.

- In every industrialized nation, employment in those productive sectors demanding higher education has grown greatly -- between three times (in the United States) and 30 times (in Italy and France) the average of those demanding less education.
- The gap in annual wages between those with and without college degrees widens every year. Currently, those who have a college degree earn roughly twice what high school graduates earn. The annual wages of workers without college educations have actually declined (when adjusted for inflation) over the last twenty-five years.
- Unemployment is dramatically higher for those who do not have access to education. In the United States, even during the height of the recession, unemployment for those with a college degree did not exceed 3.5%, while it averaged over 8% for high school graduates and 13% for those lacking a high school diploma.

California's new economy is one in which every one of these trends will be even starker. This social crisis emerges from the huge difference between the opportunities found in different California communities. We pride ourselves for living in the first mainland state soon to have no racial or ethnic majority, in which our culture reflects the contributions of an astonishing mix of talent, language, religion, race, and ethnicity. Yet at the same time we face chronic unemployment and underemployment in many geographic and minority communities-- tendencies bound to be exacerbated by the new economy.

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The numbers are clear: if only 10% of adult Latinos and African Americans in California have bachelor's degrees, then tens of thousands of Latino and African American adults will not have access to decent work in the emerging California economy. If 20% of adult Californians across all racial lines are functionally illiterate, there is an enormous number of Californians who will be permanently marginalized.

In an economy in which the well-educated will thrive, and those lacking education will fare poorly, the California State University has a special responsibility. We are the gateway institution for the great majority of those receiving a public baccalaureate education in California. We are the portal to opportunity for working families, for immigrants, and for minority communities. Especially through our partnership with California's community colleges, we provide the educational and economic pathway for millions of Californians.

This mission defines the most fundamental consideration of Cornerstones, and directs the work of this Task Force. How will we continue to provide the highest quality education for those who seek opportunity? What will define the relevance and connection of that education to the real work of our graduates? How can we better assure that we accomplish what Californians need from a college education? How can we demonstrate the need for California to rededicate itself to the importance of higher education and of adequate public support?

These questions frame our sense of urgency in the work. They animate the recommendations and proposals here. We are questioning and planning-- and ask our colleagues throughout the system to join us-- because we believe deeply in the mission of the university. That mission has never been so critical to our society.

Summary of the Task Force Charge

The charge to the Task Force on Learning for the 21st Century is straightforward, but hardly simple: Design an undergraduate education of the highest quality that will serve graduates well in the next decade and beyond. How may we be responsive to the needs and expectations of the students we anticipate over the next decade? How will we marshal our resources most efficiently, accomplish the kind of undergraduate education Californians expect, and be publicly accountable?

We recommend changes that will allow students to achieve the excellent education they most need with greater ease of schedule and timing, and with evaluations of their learning and abilities. We want to assure families, employers, and communities that a person who earns a CSU baccalaureate has a sound education including the knowledge, skills, and competencies that provide a high level of preparation for life and work.

We will make the case for a shift in the way the degree is awarded: from a focus on the accumulation of course credits to direct demonstration of learning. We urge an

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increase in active learning and in innovative pedagogies that will broaden the application of techniques our faculty currently use in their teaching. We urge a new standard that every CSU graduate demonstrate certain learning and competencies as a condition for graduation. We urge flexible programs be available year-round, in the evenings and on the weekends, sometimes by using distance "technologies" and at job-sites, all to increase the availability of education for our students. And we propose that the CSU publicly report our success and the value of investment in public higher education to the people of California.

The Task Force One Principles recognize that students are the center of the academic enterprise.

1. We will award the baccalaureate primarily on the basis of demonstrated learning rather than primarily on the basis of accumulated course credits. We will state explicitly what a graduate of the CSU is expected to know. We will assure that our graduates possess a certain breadth and depth of knowledge together with a certain levels of skills and are exposed to experiences that encourage the development of sound personal values.
2. We will shape our curriculum, student support services, and academic programs to serve better the diverse needs of our students, without compromising the high standards of student performance needed for success.
3. CSU students will be expected to be active partners in the learning process, and the university will provide opportunities for active learning throughout the curriculum.
4. We will meet the need for undergraduate education in California through increasing outreach efforts and transfer, retention, and graduation rates, and providing students a variety of pathways that may reduce the time needed to complete degrees.

Framework for Learning for the 21st Century

As institutions devoted to learning and to the broadest benefits of an educated population, CSU campuses seek excellence in teaching and scholarship, rooted in an active commitment to their local communities. The CSU has a special responsibility to provide access to high-quality undergraduate education leading to the baccalaureate, especially to underserved populations.

Never has the need for undergraduate education been greater, both to the individual pursuing the degree and the state that provides it. Yet at the same time a college education has become more necessary, California public higher education is at risk of becoming less available due to insufficient space and state support. It is our shared responsibility to assure that Californians have access to a high-quality college education that prepares them for success in life and work. **Our commitment to access is non-negotiable.** It is the basis upon which all other planning proceeds.

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Because we are committed to excellence which drives the academic enterprise, we must honor our commitment to access and the success of our students by re-examining how we offer high-quality education. Our examination is spurred as well by the recognition that there are major changes in California's society and economy, in the characteristics of the students we will educate, and in the nature of the learning and skills we ought to expect from students who will be effective citizens in the new millennium.

We are convinced we can improve the environments for learning on our campuses, and we seek to expand the many efforts already underway to engage our students more actively in their education. We want the people of California to know what we expect from our students and of their success in meeting the goals we set for them.

Our Students and the Education They Need for the 21st Century

Our students will increasingly defy easy summation. They will instead be defined by their diversity. Undergraduates will continue to come to the CSU through different routes: roughly a third will arrive with only high school preparation and the other two-thirds will come to us with prior collegiate study, mainly at community colleges. Their ages will vary enormously. While transfer students will average 25 to 27 years old, this average will obscure the wide age range of working men and women attending CSU. Over 70% of our students will work, often raising families while they attend school, and their educational needs will differ. Many will require financial aid, others child care, and still others assistive devices. Some who are otherwise fully qualified will need targeted remediation. Some will be "beginning again," and others will be continuing in their education. Many will find new interests and change course while with us.

Among the most notable features of the changing California environment that CSU students and graduates will encounter are:

- the emergence of a high-skill, high-technology economy in which higher-order cognitive skills, new collaborative social abilities, and the personal adaptiveness of adults will determine their ability to compete and succeed;
- the escalating need for employed adults to continue their education;
- the increased racial and ethnic diversity of our state's people and the concomitant need for new competence in working together effectively; and
- the need for a more engaged and thoughtful citizenry in an age of increased complexity and conflict.

Every indicator suggests that the new growth sectors of California's economy will be in value-added, technology-related fields in which working people will be expected to solve complex problems, to work cooperatively in diverse work teams, and bring to their work a combination of imagination and hands-on experience. The need for

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these same abilities will characterize those traditional fields in which the greatest employment growth is expected: nursing and related health professionals, teaching and social services, and the other helping professions.

Our students will need and demand an education that is both broad and deep. On the one hand students will require a solid grasp of those skills, competencies, and habits of mind which span all fields: the capacity to communicate well in writing and orally, the ability to read analytically, the capacity to think critically and solve complex problems, command of a language other than English, competence to move readily among different mathematical and scientific domains, an understanding of technical issues, and the ability to use computer and communication technologies with facility. Further, real chances for advancement will come for those with social imagination, creativity, and good judgment.

Our students will also expect to learn at least one area of advanced study in some considerable depth and seriousness. Because most people in the next century will have a variety of careers, a solid foundation will include the ability to actually do something, rather than merely describe it, coupled with the ability to change and learn throughout one's life.

Focus on Learning Outcomes

Principle 1- We will award the baccalaureate primarily on the basis of demonstrated learning rather than primarily on the basis of accumulated course credits. We will state explicitly what a graduate of the CSU is expected to know. We will assure that our graduates possess a certain breadth and depth of knowledge together with a certain level of skills and are exposed to experiences that encourage the development of sound personal values.

RECOMMENDATIONS

Define the learning objectives of students

- 1A Identify the knowledge, skills and values expected of any graduate of the CSU, regardless of campus. These expectations should be the basis for general education planning across campuses. (*See Attachment 2*)
- 1B State learning objectives for each major or degree program, including a brief description of those objectives to be published in the university catalog.
- 1C Develop learning objectives required to demonstrate proficiency in General Education basic skills (*See Attachment 3*).
- 1D Work collaboratively with colleagues at the California Community Colleges and the University of California to develop the learning objectives sufficient to meet the "Intersegmental General Education Transfer Curriculum."

Evaluate student learning

- 1E Develop strategies to evaluate or assess student learning beyond those used in individual coursework.

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- 1F Use a range of evaluation and assessment mechanisms (portfolios, standardized testing, etc).
- 1G Revise systemwide curricular requirements to include accomplishment of defined learning objectives.

Grant appropriate credit for learning

- 1H Grant students equivalent credit for demonstrating mastery in a particular subject area as would have been received through completing a course of study designed to provide that learning.
- 1I Grant appropriate credit for learning received prior to attending the CSU and for integrating learning experiences outside coursework with learning received through coursework.
- 1J Revise systemwide and campus requirements for graduation to emphasize demonstrated learning.
- 1K Redefine what it means to complete a program or course of study to emphasize meeting the required learning outcomes .

Integrate the assessment of learning objectives into a system of accountability and quality improvement

- 1L The CSU will produce a systemwide report on students' performance in meeting specified learning objectives.
- 1M Use the results of the student learning assessments to enhance program quality and effectiveness.

Define the learning objectives for students

We propose that the baccalaureate should be granted primarily on the basis of demonstrated learning rather than primarily on accumulated course credits. Our degrees should certify that students have achieved certain clear and appropriately measured levels of learning. This fundamental shift in orientation and organization opens up a remarkable variety of curricular options for our students, some of whom may move through the curriculum at a more rapid pace reflecting their real learning more than our academic calendar.

How is this so different from the status quo? On the one hand, evaluation and assessment of learning are nothing new to the university. Professors evaluate and assess students' knowledge in courses and grade students based upon those determinations. As an institution, we conduct some forms of assessment which are more global (such as the ELM, the EPT, or the graduation writing requirement).

What is lacking in current evaluation and assessment efforts is assurance about baccalaureate preparation as a whole, especially the direct link between the expectations we set for graduates and assessment of their learning. Today we cannot say, with confidence, that a particular graduate of the California State University possesses a given level of knowledge and skills or has been exposed to certain values

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or standards of conduct. Rather than requiring a student to demonstrate proficiency in an area of knowledge or particular skill, we establish courses which a student must complete. *We use the accumulation of completed courses as a proxy to measure learning as a whole.* We must develop ways of directly determining whether students have achieved certain learning goals and expectations, rather than accepting that accumulated units on a transcript prove that all those learning goals have been achieved.

The first step is to state explicitly what the learning objectives for our students are and will be. It will be necessary to develop learning objectives for several levels of study, such as those expected for completion of a degree program, for transfer students, or for moving from lower division to upper division study (*See Attachments 2 and 3*). The substantive design of curricula is the responsibility of the faculty, as is the development of content of degree and certificate programs. The CSU statewide Academic Senate is currently examining the baccalaureate degree and will shortly offer detailed outlines of the learning expectations within the degree. Campus senates and faculty governance processes determine the detailed content of academic programs and curricula.

We have tried to answer a more global question, in framing how we believe the CSU ought to approach the overall design of its undergraduate offerings: **When considered from the perspective of the public interest, what should we expect a graduate of the CSU to know and be able to demonstrate?**

- a) The ability to communicate effectively, through a variety of means.
- b) The ability to read analytically and think critically at a high level.
- c) The ability to locate, analyze, evaluate, and synthesize information.
- d) The ability to integrate knowledge across discipline boundaries.
- e) The ability to make both qualitative and quantitative assessments.
- f) The ability to participate effectively in a democratic society.
- g) The ability to work effectively in group settings with people different from oneself.
- h) The ability to speak, read, and write in a language other than English.
- i) The ability to appreciate and value cultures other than one's own.
- j) The ability to value one's own self and the communities of which one is a part, to make moral and ethical decisions, and to act in a socially responsible manner.

Evaluate student learning

The second step is to design evaluation and assessment mechanisms that capture the full range of student learning (*Attachment 4*).

Assessment of student learning may have several purposes, and it is critical that the design of these assessment mechanisms is tailored for the purpose at hand. For example, there are some learning objectives which we will expect of every student in their baccalaureate study, and appropriate assessment mechanisms to be

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universally applied to students may need to be designed for this purpose. We may also want to measure the "value added" of the CSU educational experience. More targeted, comprehensive assessments of a representative sample of students may be better suited for this purpose. If we wish to create a systemwide report demonstrating the value of a CSU education for the state's economy, measuring graduates' skill levels and surveying their employers may be necessary. For a department to determine if its students meet a set of required learning objectives prior to granting a degree, individually designed assessment portfolios could be used. Employing portfolios at the inception of study in a particular field would encourage students to customize their respective academic programs according to their needs with the help of faculty advisors. A variety of assessment approaches should be used to describe, whenever possible, the full breadth of the student's learning.

No account of expected knowledge, skills, competencies, and values is adequately expressed by those most easily tested. The CSU will commit itself publicly to the development of those competencies most difficult to test: moral discernment, social commitment, ethical behavior, civic action, and sound judgment. The importance of the *process* of learning and of students' active participation in their education is discussed in more depth later in this report.

Grant appropriate credit for demonstrated learning

As we move to a system that assesses student learning directly, granting appropriate credit for that learning is key. Put simply, to maximize learning we must reward it. While the measurement of student learning may have significant value for the institution (for program improvement, public accountability, or budgeting), it must also have value to the student.

Students now receive credit through units (to measure the number of courses completed) and grades (to measure their performance in those courses). A shift toward a system that evaluates learning and recognizes it directly does not necessarily entail a shift away from credit units, grades, or any other system of measurement we currently employ. What is needed is not a new system of measurement, but a new system of recognition of learning. The units and grades listed on a transcript must signify that the student has demonstrated competence in a certain subject area. Likewise, a student who completes all of the learning requirements for a course of study in less time than the norm should receive the same credit.

Integrate the assessment of learning objectives into a system of accountability and quality improvement

The primary purpose of assessing student learning is to improve student learning. Assessment can also be used to improve educational quality and the institution's effectiveness in delivering education. Judging the institution's effectiveness on the

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basis of the learning it produces is also important in responding to public concerns about higher education. Campuses should have processes in place to evaluate institutional performance in areas of student achievement, should use that data to articulate their performance to the public, and for continuous internal improvement.

A Student-Centered Learning Environment

Principle 2- Students are the center of the academic enterprise. We will shape our curriculum, student support services, and academic programs to serve better the diverse needs of our students, without compromising the high standards of student performance needed for success.

RECOMMENDATIONS

Provide more flexible academic programs

- 2A Revise regulations (internal and external) to allow programs more flexibility in scheduling academic calendars to meet student need.
- 2B Allow programs to establish academic calendars different from the normal calendar of the campus so long as appropriate services are available.
- 2C Allow students to complete course learning objectives in less time than the academic term and grant equivalent credit for such completion.
- 2D Minimize systemwide regulations on the distribution of courses, units required for particular subject areas, and course requirements for graduation to allow campuses more flexibility in providing degree options for students.
- 2E Seek amendment of accreditation standards to permit greater scheduling flexibility for academic programs.

Expand the availability of academic programs and academic and student support services

- 2F Expand the availability of academic courses/programs and student support programs year-round and during weekends, early mornings, and nights.
- 2G Expand the availability of academic programs and academic and student support services at off-campus centers, at job sites, and by using technology.
- 2H Focus academic and student support services toward demand.

Review programs within the context of the overall university mission

- 2I Modify the program review process to increase focus on a program's role within the university's mission and goals.
- 2J Have campuses initiate a thorough examination of programs within the context of the overall university mission.

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Provide more flexible academic programs

There is no one "best" model for undergraduate education for all students. The fundamental structure of higher education was designed in a period when access was severely limited. Universities then expected participation by a small segment of society with similar academic and support needs.

Today we offer a variety of paths to achieve a baccalaureate degree. Some students complete their degrees in around four years of full-time study, and some in many more years of part-time study. Most come to the CSU by way of the California Community Colleges. Many follow highly structured paths articulated by departments with high unit requirements. Others obtain majors with sufficient breadth to be an extended general education.

Whatever paths our students follow, our teaching must be designed to help students achieve learning beyond the current norm. What we must add to the mix are greater opportunities for accelerated learning, greater use of pedagogies that improve the depth of learning and understanding achieved, and greater use of proven technologies that enhance the quality of education while freeing both teacher and learner from some of the past restrictions of time and place.

Our ability to offer flexible academic programs is limited by institutional tradition and by formal policies and regulations. Policies and regulations which unnecessarily restrict campuses' ability to tailor programs toward the diverse needs of our students must be revised. The legitimate public interest in maintaining the quality of the degrees we certify can best be achieved through means other than strict definitions of course length and academic term. By setting clear standards for student learning and by then assessing that learning directly we can lessen the role of prescriptive regulations in quality control.

Specifically, graduation requirements should be described as a specific and rigorous set of learning objectives, and campuses should have considerably more authority in determining how best to achieve those objectives. Campuses should develop guidelines which permit variation in the academic calendar recognizing that the primary responsibility for developing the academic program should rest with entities closest to the student. If students would be well served by an academic calendar that differs from that of the campus, departments and programs should have the ability to seek that change. If programs are to be able to tailor themselves to the diverse needs of students, we must initiate a thorough review of all regulations which place unreasonable constraints on academic calendars, course scheduling, and the awarding of academic credit and revise those regulations where necessary.

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Expand the availability of academic programs

CSU education should be organized to meet the individual needs of our students. This means, at a minimum, that our programs should be available and flexible, and that we offer programs more tailored to those currently employed and to those raising families. The academic calendar will be determined more by the substantive needs of students than the traditions of the past. We must also strengthen efforts to align our services with the need for them. The practices of staying open more hours and having more staff available in the financial aid office or the admissions and records office during peak times are examples of flexible service that must be extended to other segments of the university where the need for services fluctuates.

As technology, tools and support become available, undergraduate programs should aggressively develop the appropriate use of distance learning, asynchronous learning modes, off-site teaching, and other newer forms of pedagogy to improve quality, increase our availability, and mirror the use of technology in the contemporary world of work.

Review academic programs within the context of the overall academic program

The challenge facing the CSU in the years ahead requires that we examine each program in the context of the overall academic program. Every program that the CSU offers must be of the highest possible quality, and the entire academic enterprise must be working together to meet institutional goals. As we expand some programs into new schedules, or to meet expanded student need, shifting resources and reductions in other programs may be necessary. Each campus should have a process to review its programs within the context of the overall academic program and campus mission.

Engaging Students As Partners in Active Learning

Principle 3 - CSU students will be expected to be active partners in the learning process, and the university will provide opportunities for active learning throughout the curriculum.

RECOMMENDATIONS

Create active learning environments

- 3A Develop the systemwide and campus arrangements needed to encourage the use of various techniques of active learning (such as collaborative learning, problem solving, interactive technology, and service learning) in the curricula.
- 3B Develop a set of learning experiences (such as research projects, community-service projects, or collaborative learning projects) which each student should have prior to graduation.

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3C In collaboration with graduate schools (especially the University of California) develop criteria to ensure that prospective CSU faculty coming from research graduate programs have sound training in teaching and learning, particularly in modes of active learning.

3D Provide education opportunities for current faculty in teaching and learning, particularly in modes of active learning.

3E Recognize the importance of scholarship in providing opportunities for student involvement with faculty research and in ensuring that faculty stay at the cutting edge of their fields to best serve students.

Recognize the student's responsibility for learning

3F Require that each student be responsible for creating an academic plan with a faculty advisor that includes self-guided study.

3G Devise approaches that will encourage students to take a more active role in their own learning, including self-paced and self-directed study.

Encourage students to engage in service learning

3H Develop the system-wide and campus arrangements needed to enable every CSU student to engage in a community-service learning experience before graduation.

Use interactive technology to enhance active student learning and productivity

3I Encourage the use of interactive pedagogies and technologies which promote active engagement of students in the learning process and expand access.

3J Urge campuses to revise their program and curricular review policies to accommodate technology-mediated instruction (*See Attachment 5*).

Create active learning environments

The process of teaching and learning, the interaction of teachers and students, and the interaction of students with the broader campus community all contribute to each student's education. Students learn more when they are involved beyond listening and observing, when they are involved in higher-order thinking rather than memorization, when they are engaged in activities (reading, discussion, writing, research), and when they are engaged in identifying and solving problems.

For education to be most effective, students must be actively engaged in the learning process. Our current curricular practices reflect this view, but not often enough. We require laboratory experience in many science courses because we know that the process of using the scientific method and applying this method of inquiry to a practical, real-world example is a powerful way to learn. Many disciplines require an internship because it provides students with a means of learning how the lessons in the classroom apply to the workplace. Many universities are using community-service learning that integrates academic study with its practical application to

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community problems. Collaborative learning, the use of technology, and other strategies for engaging students actively in their learning are employed by faculty across the system.

Each student should have certain learning experiences prior to graduation. We require students to have specific courses which are designed to provide particular learning experiences and to deliver certain content. As we move to approaches where we assess student learning directly, we must ensure that students continue to receive the learning experiences which are vital to a baccalaureate education. The particular set of experiences which students will complete before graduation should vary among campuses, departments, and individual students. Some examples of active learning experiences which should be provided throughout the curriculum are:

- collaborative learning
- the use of interactive technology
- a global or international experience
- community service learning
- research projects (individually or in collaboration with a faculty member)
- problem-based learning, as opposed to discipline specific learning
- laboratory experience
- field research
- debates or role playing

When we ask our students to take up the responsibility of being active partners in the learning process, we must ensure that our faculty are prepared to share in this exercise. New faculty who come to us from research graduate programs must have sound training in teaching and learning. The CSU should use its leverage as a major “consumer” of Ph.D. students to strengthen the role of teaching and learning training in graduate programs.

Student responsibility for learning

Education is the collective responsibility of the student, faculty, and the university. Students should have a role in defining their own academic plans. Assessment of the student’s skills, knowledge and abilities at the start of academic study should inform judgments about what courses of study and learning experiences the student needs.

The student’s participation in developing their undergraduate experience must be ongoing, recognizing the changes that occur as the student moves from one level of study to another. Determination of the student’s needs must be integrated into this planning. Although the importance of developing academic plans with a faculty advisor is key, not all faculty members will have substantial responsibilities as student advisors. We must allow faculty to specialize in the areas where they are

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most qualified to perform such as serving in a cohort of faculty who act as primary advisors in helping students meet their educational goals.

Encourage students to engage in community-service learning

Community-service learning is the range of pedagogies that link academic study with community-service so that each reinforces the other. The substance of community-service learning courses vary widely, but all include structured reflection to integrate academic study and community service.

We recognize that community-service learning enhances academic learning by allowing students to apply their classroom learning to real-world problem solving and to appreciate the connections between their academic coursework and real-world activities. Community service also contributes directly to both civic learning (how a community functions and ways to enhance it) and moral learning (reinforcing the elements of character that lead to ethical actions). Finally, community-service learning strengthens career and social development. A growing body of research provides empirical evidence of the range of educational benefits associated with community-service learning.

The campuses of the CSU have special obligations to the communities that they serve, and community-service learning is a vital means to strengthen the ties between community and campus, increasing understanding in both directions.

CSU students should have the opportunity to engage in at least one community-service learning experience. Support for faculty development and campus infrastructure is needed to realize that objective.

Use interactive technology

Interactive technology has significant potential for supporting student learning in many undergraduate fields as well as for providing tools for lifelong learning and engaged citizenship. For example, properly designed computer software can supplement or replace many course materials, permitting students to learn at their own pace with flexibility and with immediate assessment of the abilities. Computer conferencing (e-mail, chat systems, and listservs) provides additional opportunities to break the requirement that the schedule of the teacher and the student be the same. Students may communicate with peers and the teacher or in a group setting without always being constrained to a particular classroom or hour in the day.

While interactive technology has significant potential for increasing student learning, institutional policies regarding program review, course approval, workload and personnel policies must be revised to ensure that they provide quality while accommodating the realities of new pedagogy and technology. Policies and practices designed for a different era may be a barrier to faculty innovation and the evolution of contemporary curricula (*See Attachment 5*).

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A Commitment to Student Access and Success

Principle 4 - We will meet the need for undergraduate education in California through increasing outreach efforts and transfer, retention, and graduation rates, and providing students a variety of pathways that may reduce the time needed to complete degrees.

RECOMMENDATIONS

Increase the preparedness of first-time freshmen and collaborate with K-12

- 4A Update competency statements in various subjects to provide high schools with clear statements about what is expected of entering students.
- 4B Expand efforts to assess students' abilities while in high school, both to reduce remediation and to aid individual academic advising.
- 4C Reduce the need for remedial education by increasing the preparedness of entering students.
- 4D Work with K-12 to provide components of the curricula to students before they attend the CSU.
- 4E Continue examining the implications of competency-based admissions policies with high schools that have developed competency-based graduation requirements.
- 4F Expand the number of "mentoring" programs where college students work with elementary and secondary students, and integrate these learning experiences into the curriculum.

Facilitate transfer from the community colleges

- 4G Expand collaboration with the community colleges and K-12 to increase transfer readiness programs and the availability of counseling for college-bound students.
- 4H Expand the development of "transfer guarantee" programs to provide students with an integrated plan for completing study at both the community colleges and the CSU.
- 4I Evaluate transfer students more quickly, and expand efforts to follow and advise potential transfer students throughout their community college study.
- 4J Offer more courses and certificate programs jointly with the community colleges.
- 4K Review degree programs to ensure that degrees can be completed in a reasonable time for transfer students.

Commit to student success

- 4L Provide student support services coordinated with traditional enrollment service programs.
- 4M Use technology to expand the availability of counseling information for students.

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4N Develop among faculty and staff more collaborative "mentor teams" for students to gain a connection with the university.

Recruit re-entry students and encourage lifelong learning

4O Work with employers to offer instruction at business sites.

4P Offer each graduating student a coupon for two free continuing education courses to encourage graduates to study beyond the baccalaureate.

4Q Support continuing education programs and faculty.

Increase the preparedness of first-time freshmen and collaborate with K-12

We can do more to increase the preparedness of students entering the university. Statements of competencies in several subject areas have been developed (such as mathematics, English, natural science and several foreign languages) to provide high schools with clear explanations of what is expected of students entering college. These statements should be kept updated, and we should expand our efforts to disseminate these statements to high school teachers. We can begin evaluating students' preparation as early as possible so that shortcomings may be eliminated before collegiate study. The CSU is committed to working with K-12 and the community colleges to reduce the need for remediation and to provide needed remediation for those qualified to attend. We should also expand efforts currently underway to partner with high schools developing competency-based graduation requirements so that our admissions criteria are flexible enough to accommodate these direct appraisals of student abilities.

Just as there are students who come to the university without the full complement of collegiate-level skills, there are other students who are ready for collegiate level study in their junior or senior years of high school. Many effectively waste part of the senior year of high school because they have already completed the requirements for both graduation and college admission. Allowing high school students to begin collegiate-level study will increase outreach opportunities and reduce the time to achieve the baccalaureate.

Facilitating transfer from the community colleges

Upper-division transfers average 3.5 years in the CSU to finish their baccalaureate degree: three years of enrolled time and half a year of "stopping out." Improved transfer orientation and more available counseling and articulation while the student is at the community college are important factors in reducing the number of courses that the transfer student will need at the CSU to complete the degree. Offering more courses and programs jointly with the community colleges may also facilitate transfer and reduce the time needed to complete upper-division courses.

Another significant factor affecting the length of time students spend at the CSU after transfer is our program degree requirements. Many majors demand a large

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number of units or a significant number of prerequisites, making degree completion within a reasonable time extremely difficult. When this situation exists, campuses should give serious consideration to program changes to facilitate transfer from the community colleges. Thus, improved availability of counseling, offering more courses jointly with the community colleges, or reducing unit requirements while maintaining the learning objectives of the program are all possible solutions.

As the CSU redesigns the curricula continuously to meet the changing needs of students and society, the role of the community colleges cannot be underestimated. Most students graduating from the CSU acquired a significant portion of their academic credit from another institution. As we change the way in which we assess student learning and grant credit for it, we must work closely with the community colleges to develop assessment mechanisms that adequately measure student learning for transfer students.

Commit to student success

The CSU consists primarily of continuing students, not new students. Our commitment to access is meaningful only if there is a parallel commitment to student success-- the retention and success of students who are admitted. This commitment to student success is a "culture change" as much as a policy change. To students, the workings of a university of our size can appear mechanical, bureaucratic, or even intimidating. Every part of the university (staff, faculty, and administration) must see the success and resultant retention of students as a primary goal, and responsibility for ensuring student satisfaction must not rest in only one segment of the university community.

Recruit re-entry students and encourage lifelong learning

Our recruitment and outreach efforts must not be limited to those already attending classes (be it in high school or the community colleges). Many of our students are returning to acquire needed job skills after long absences from higher education, or simply to engage in "lifelong learning." Our recruitment and outreach efforts must address these populations as well.

The CSU must make information on the benefits of attending the CSU available to anyone in the state. The CSU exists in a competitive market for students. We believe that the kind of education that the CSU offers is of great benefit both to the individual and to the state as a whole. We must clearly articulate this message to the public through a comprehensive system of "consumer information" (to be developed primarily through the work of Task Force #3). If not, decisions will be made on the basis of reputation, rumor, or price without regard to quality.

We will lay the foundation for future participation in our continuing education and postbaccalaureate programs by offering graduating students a coupon for two free

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courses of continuing education to encourage a habit of returning to the university throughout their lives.

Conclusion

Through this array of strategies we seek to meet the challenges of the next decade and beyond. We seek to guarantee that we will provide the highest quality undergraduate education by clearly defining the learning objectives for our students, and rigorously evaluating their learning to ensure the objectives are met. We seek to meet the diverse needs of our students through a wider range of programs offered where and when the students need them most, not necessarily when we are accustomed to offering them. Recognizing that students learn best when engaged in the process of learning, and that the full value of a university education extends beyond the classroom walls, we will assure that all CSU graduates engage in various forms of "active learning" as part of their course of study. We will accommodate the rising number of those seeking higher education by offering more programs off campus (at work sites, in collaboration with the community colleges or using technology) and by allowing student to progress at a faster pace through the curriculum. And finally, we will address the division in our society by aggressively reaching out to those who have been excluded from higher education in the past and to those who could benefit most from it.

What is outlined in this report is our best effort at devising strategies to meet the challenges the university will face in the years ahead. We now seek your thoughts, ideas and discussion.

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Attachment 1

The Future of Undergraduate Education

The goals and recommendations advanced by this project must be grounded in concrete expectations for how the lives of our students will be improved. To this end, it may be helpful to imagine how students will meet the CSU in the years ahead.

Scenario 1: Alex Smith is a 45-year-old publisher of a local newspaper in a rural area of the state. After high school he went directly to work for the paper, and since then has become the editor. He has taken only a few classes at a community college, but now he wants to get his bachelor's degree to have more career options. He is concerned that it would take many years as a commuting part-time student to get a degree. At the nearest CSU, an advisor suggests that with his publishing experience he could get substantial credit by demonstrating proficiency in parts of the university's curriculum. She provides him with background information, an interactive CD which records and transmits information on his work to the university, and books which he uses to study independently over the next few months. The advisor helps him develop an admissions portfolio, composed of examples of his writing combined with test results. After review by a panel of faculty and an assessment specialist, Mr. Smith earns credit for almost one-third of his graduation requirements. During the next two years he takes a variety of courses and independent study via satellite TV as well as using the Internet, two way audio and video, and e-mail. He graduates having commuted to the university for only part of his last year of study.

Scenario 2: Maria Sanchez is a 15-year-old Latina high school student. Because of the low number of students from her school who go to college, it has been targeted for outreach efforts by the local CSU campus. As is the case with many high school students, Maria rarely thinks seriously about life after high school. One day a team of "student ambassadors" comes to her high school to describe college life and the benefits of a college education. Maria speaks with one of the students after their presentation and meets with her later regarding a "College Readiness" program that the campus developed with the high school. In addition to the college admission requirements, in the 10th grade Maria takes English and math diagnostic examinations so she can develop needed skills before she graduates. She needs further study in math, but she is an exceptional writer. She enrolls in three advanced placement classes at her high school during her junior year, which will count for academic credit at the CSU. During her senior year, her high school excuses her from 2 of the 6 courses in a day so she can commute to the local CSU for college-level courses. When she graduates from high school she has nearly one year of academic credit, has developed a familiarity with the CSU campus, and is a

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member of a campus club. She also has the option to attend any other CSU with the same academic credit because systemwide standards and guidelines for these courses have been developed.

Scenario 3: Rob Poling is a 26-year-old cab driver in San Diego. In high school he had poor grades, and did not qualify for admission to a university. Recently he was married, and he knows that without a college degree his career options and income potential are limited. While he does not qualify for direct admission to the CSU, he enrolls in a program offered jointly by the CSU and the nearest community college, which operates out of an office in downtown San Diego near his work. He meets with an assessment team for a comprehensive evaluation of his skills and abilities in half a dozen academic areas, and develops a blueprint for completing his baccalaureate degree based upon this evaluation. After one semester at the community college to develop the most fundamental skills necessary, he is offered a CSU "passport" which allows him to take lower division courses at any CSU campus, either locally or ones that offer courses in his area via the Internet or satellite TV. The assessment team assists in planning his degree pattern, pointing him toward either a community college or a CSU campus for particular learning needs, and recommending the best ways to take courses and be assessed.

Scenario 4: Jane Robinson is a 19-year-old first-year student coming to CSU, Channel Islands. Her main concern in choosing a university to attend was the quality of the degree the institution offered and how much it would help her gain employment and admission to graduate school. While in high school, she was considering attending a private university, but decided on the CSU after learning about its focus on learning and a student-centered environment. (Many of the other institutions she examined seemed dominated by large lecture halls and a difficulty meeting with professors). She decides to live on campus due to the excellent student services and the sense of "community." She gets involved in several campus organizations and activities. In her first year she examines the learning objectives spelled out by her major program, and develops a curriculum plan that integrates those with the university's general education breadth program. Although she is taking a fairly high "unit load" only about a half of that is in classroom courses, and the rest is achieved through a community service project, a directed research project, and a course where a group of students in the residence halls work with a professor to design their own work to satisfy some of the lower division foundation skills component. In every one of her courses and projects, she communicates with the professor regularly via e-mail.

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Attachment 2

Fundamental Learning Objectives:

Skills: Graduates should possess advanced abilities in the following skill areas:

- a) The ability to read, write, speak, listen and critically evaluate at a superior level.
- b) The ability to think critically and logically, understand scientific methodologies, and communicate one's work effectively.
- c) The ability to locate, evaluate, analyze (making both qualitative and quantitative assessments), and synthesize information to reach reasoned conclusions.
- d) The ability to integrate knowledge across discipline boundaries.
- e) The ability to employ modern communication and computer tools, and the flexibility to adapt to future technological change.
- f) Interpersonal skills, including the ability to work effectively in group settings with people different from oneself.
- g) Problem identification and problem-solving skills.
- h) The ability to speak, read, and write in at least one language other than English.

Knowledge: Graduates should have a knowledge of:

- a) The human experience including its cultural legacies, of human accomplishment in the arts and technology.
- b) The advancement of human thought including philosophy and science
- c) The evolution of human institutions, economic, political, and social.
- d) The creative and performing arts, the humanities, the sciences, and the social sciences.
- e) The human organism as a physical, psychological, and social entity.
- f) How humans interact at both the interpersonal and broader social levels.
- g) The ability to recognize and understand social structures and the ways in which humans are grouped by virtue of such characteristics as race, ethnicity, gender, sexual orientation, and social, political, or economic status, and understand the implications of such groupings.
- h) The physical and biological environment including an appreciation of empiricism and experimentation, an understanding of cause and effect, and the ability to conceptualize physical and abstract systems.
- i) Global interdependence and multicultural experiences.

Values: Undergraduate education should foster the development of sound social attitudes, values, and behavior including:

- a) The willingness to accept individual responsibility and leadership and to work collaboratively.
- b) Honesty, integrity, tolerance, and ethical conduct.
- c) The ability to participate fully, and with civility, in a democratic society.
- d) The ability to appreciate and value one's culture and cultures other than one's own.

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Attachment 3

Structure of the Undergraduate Curricula¹

General Education Basic Skills:

- Developed at the system level.
- Provides students with the necessary collegiate-level skills, knowledge and abilities to pursue study in depth.
- Enunciates a set of learning objectives which can be fulfilled through a variety of means (by courses, assessments, portfolio, etc.)
- Is provided before students pursue study in depth

General Education:

- General learning outcomes developed at the system level.
- Campuses develop general education programs as the primary means of delivering the learning objectives expected of all graduates.
- G.E. is headed by a single entity on each campus charged with maintaining an integrated and coherent breadth curriculum for students.
- Is described as a set of outcomes that can be achieved through a variety of means.
- Includes elements of the educational experience which contribute to student learning and development (service learning, collaborative learning, etc.)

Degree Programs:

- Campus programs will be responsible for developing the detailed content and assessment of the depth curriculum.
- Programs will identify the learning objectives students are expected to achieve, stating clearly what its graduates can be expected to know and be able to do.
- Degree program learning objectives will be published in the course catalog.
- Degree programs will articulate how they will assess the specified learning outcomes.

Capstone:

- Integration of the disparate components of the curriculum, and the assessment of the learning objectives for the entire undergraduate experience, will occur in part through a capstone "experience" near the end of a student's academic study.
- Responsibility for developing capstone experience may rest either with the entity responsible for coordinating general education, or within individual programs.
- A variety of assessment mechanisms (testing, portfolio, etc.) will be used.
- Assessment within the capstone may be used both to determine if the student has achieved a satisfactory level of accomplishment to be granted a degree (as

¹ While responsibility for designing the specifics of the content of the baccalaureate rest primarily with the faculty, there are some general expectations for a structure that would facilitate the changes proposed in this report.

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determined by the faculty of the campus) and for institutional quality improvement.

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Attachment 4

Possible Steps to Outcomes, Assessment, and Quality Improvement²

Policy changes at system level:

- Each campus to develop outcomes assessment plan for system review
- Statewide Academic Senate involved in development of General Education assessment plan (systemwide with campus variations as deemed appropriate).
- Revise systemwide requirements for graduation to reduce unit requirements and the role of course categories and emphasize demonstrated learning.
- Each academic program to include summary student outcome statements in catalog and more detailed outcome statements used for curricular development.
- Academic program review process to include review of outcomes as assessed.

System support for outcomes and assessment development:

- Provide expertise to assist campuses in developing outcomes statements and assessment measures.
- State and regional workshops to assist program personnel involved in outcome and assessment development (organized and implemented through ITL).
- Funding plan to provide assigned time for development of outcomes and assessment.

Illustrative timeline:

Fall, 1999: Program outcome statements approved for catalog copy and overall assessment plan on file.

Spring, 2000: Program assessment plans and breadth assessment plans approved.

Fall, 2000: Implementation of assessment programs.

Fall, 2001: All program reviews to include reviews of assessment results.

² While a detailed implementation plan would be developed after the general policy guidelines are established, this attachment is provided as an example of how outcomes assessment may be implemented.

Principles for the Effective Use of Technology:

- a) Faculty must have the responsibility for determining the pedagogies and instructional methods most appropriate for the instructional modules, courses, and academic programs.
- b) The quality of instructional modules, courses, and academic programs delivered by or using technology-mediated instruction must be at least equivalent to the quality in existing academic offerings.
- c) Necessary academic student services in support of technology mediated instruction at a distance should be comparable to the academic and student services supporting on-campus instruction.
- d) Campus and system-wide efforts to promote the use of technology-mediated instruction should be supported fully by professional development programs that focus on pedagogies and student learning systems appropriate to the technology as well as training in the use of the technology.
- e) Campus and system-wide efforts to promote the use of technology-mediated instruction must provide appropriate instructional design support and technical support to assist faculty in the development and presentation of technology-mediated instruction.
- f) If technology-mediated instruction results in increased class sizes or student-faculty ratios beyond traditional classroom and curricular standards, additional resources or workload adjustments necessary to maintain the quality of instruction must be provided.
- g) Faculty personnel processes (hiring, retention, tenure, promotion, and review of tenured faculty) must value and reward all course and curriculum development and professional development activities that result in improved instruction.
- h) Campus and system wide policies should be reviewed to establish collegial mechanisms to address issues related to the expanding role of technology-mediated instruction in the CSU, including the ownership of intellectual property, the determination of the fair use of copyrighted material, and the long-range academic planning and capital budgeting.

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Attachment 6

Possible Changes in Faculty Roles and Rewards

Recommendations contained in this report have significant implications for faculty roles and institutional priorities. Every segment of the institution, including students, faculty, and staff, will have to change. Following is an example of changes in faculty roles which would result from or facilitate implementation of the recommendations included in the report.

- a) Redefine what it means to complete a course, de-emphasizing time in class and emphasizing meeting of predetermined course objectives.
- b) Define professor's teaching objective as seeing that as many students as possible successfully meet the course objectives.
- c) Encourage faculty members to develop competency statements and assessments by providing additional salary, student assistants, summer support, and/or reallocation of workload (assigned time).
- d) Give credit (through the retention, tenure, and promotion process) to faculty members who foster greater student learning.
- e) Provide programs greater funding on the basis of higher course completion rates as compared to historical course completion rates. FTES funding could continue, but greater efficiency would yield fiscal reward.

Faculty Time: Encourage faculty to restructure their time commitments include the following areas:

- a) Discussions with program colleagues leading to decisions as to what baccalaureate learning outcomes should be achieved, which can be measured, and how assessments will occur.
- b) Discussions on the best ways to design each part of the curriculum so that learning can best occur in a cost effective manner
- c) Examining current learning outcomes.
- d) Developing learning outcomes measures, if appropriate outcome measures do not exist.
- e) Assessment activities.

Additional Support Necessary: Most faculty members have not been trained in all support areas and will need the following from faculty and staff colleagues. The resources for this support must come from cost savings generated through strategies established by Task Force #2.

- a) Support in learning outcomes assessment
- b) Support in curriculum analysis and design
- c) Support for distance education, not only the technical support at the sending and receiving site, but also training in the most effective methods of presenting in distance education
- d) Support for the computer network, continual upgrading of the communications hardware and software, training and help desks for faculty who use technology