ITEM 4 ■ DRAFT

California Postsecondary Education Commission

Academic and Vocational Programs and Plans Proposed by the Public Higher Education Systems, 2005-06

June 2006

This report highlights three major planning initiatives of the California public higher education systems:

- *Program expansion in the health sciences under consideration by the University of California;*
- *Expansion of independent doctoral programs under consideration by the California State University; and*
- *Development of a labor market analysis tool to assist the program planning process of California Community Colleges.*

The report also summarizes the program reviews conducted by the Commission during the reporting period 2005-06.

Contents

Background 1
Long-Range Planning Highlights 2
Program Review Summaries 8

The Commission advises the Governor and Legislature on higher education policy and fiscal issues. Its primary focus is to ensure that the state's educational resources are used effectively to provide Californians with postsecondary education opportunities. More information about the Commission is available at www.cpec.ca.gov.

Draft Commission Report

Background

The California Postsecondary Education Commission is statutorily responsible for reviewing and commenting on the need for new degree and certificate programs proposed by the public higher education systems. The review process is intended to: (1) safeguard the state against inefficiencies in the allocation of program resources; (2) help ensure that new programs will meet student and societal needs; and (3) ensure that programs are well conceived and that they will have desired educational and social consequences.

Recent enhancements to the Commission's review process include greater emphasis placed on the long-range plans of the systems so that staff can consider prospective programs five years in advance of implementation. This has enabled the Commission to alert the systems of potential planning concerns early in the review process before formal proposals are submitted.

The guidelines used by Commission staff in reviewing new undergraduate and graduate programs are presented in Appendix A. They include the following seven criteria:

- Student Demand
- Societal Needs
- Appropriateness to the Institutional and System Mission
- Number of Existing and Proposed Programs in the Field
- Total Costs of the Program
- Maintenance and Improvement of Quality
- Advancement of Knowledge

To maintain maximum efficiency in the Commission's review process, the California State University is not required to submit proposals for new academic programs if five criteria are met, including the following three important considerations:

- Either the campus will not have to acquire significant resources for the program to reach a cost-effective level of operation, or there is demonstrated capacity to fund the program on a self-support basis;
- The program has been subject to a thorough campus and system review and approval process; and
- The program can be housed adequately without a major capital outlay project.

Also by agreement, the University of California is only required to submit proposals for new graduate programs and proposals for joint graduate programs with the California State University. Commission reviews might include, for example, an in-depth examination of the need for a costly medical school or law program, or a comprehensive review of the need for a joint doctoral program with the State University to enhance educational leadership in school districts located in a particular region of the state.

Selected Long-Range Planning Highlights

This section highlights some of the major planning considerations and initiatives of the public higher education systems that are intended to address important aspects of California's social, workforce, and labor market needs. These are: (1) expansion plans in the heath sciences under consideration by the University of California to meet perceived health sciences workforce needs; (2) doctoral program expansion under consideration by the California State University to address perceived K-14 educational leadership and schooling needs; and (3) development of a new labor market demand and supply forecasting tool to assist the academic and vocational planning process of local community colleges.

1. Health Sciences Expansion Plans under Consideration by the University of California

California's higher education enterprise contributes significantly to the general health and welfare of the state and the nation. Given this continuing contribution, it is not surprising that the University of California, the State's major higher education research and development system, continues to operate and maintain the largest health sciences instructional programs in the country. As shown in Display 1, UC health science programs consist of two schools of dentistry, five comprehensive schools of medicine, two schools of nursing, one school of optometry, two schools of pharmacy, two schools of public health, and one school of veterinary medicine. Collectively, these programs enroll more than 13,000 students annually.

DISPLAY 1 UC Health Sciences Instructional Programs, 2003-04

Program Field	Schools	1st Year Professional Students	Total Budgeted Enrollment Professional Students	Total Budgeted Residency Positions	Total Budgeted Graduate Student Positions	Total Budgeted Enrollment	State-Supported FTE Faculty
Dentistry	UCLA	88	352	50	34	436	86
	UCSF	80	320	31	77	428	102.4
Medicine	UCD	93	372	516	115	1,003	191.6
	UCI	92	368	581	93	1,040	186.6
	UCLA	165	732	1,500	220	2,452	444.3
	UCSD	122	488	402	226	1,116	211.3
	UCSF	153	612	1,000	495	2,115	364.5
Nursing	UCLA	---	---	---	265	265	33.1
	UCSF	---	---	---	598	598	75.4
Optometry	UCB	65	255	11	23	289	23.0
Pharmacy	UCSD	25	50	10	10	70	3.7
	UCSF	117	465	34	77	567	55.8
Public Health	UCB	129	259	8	149	416	50.1
	UCLA	168	337	16	211	564	64.9
Veterinary Medicine	UCD	131	524	90	181	795	132.5
Totals	15	1,428	5,125	4,249	2,774	12,154	2,025.5

Source: Adapted from the University of California report, *Health Sciences Education: Workforce Needs and Enrollment Planning, 2005.*

In 2001, the University's Systemwide Health Sciences Committee, under the direction of the Vice President for Health Affairs, initiated a comprehensive study to assess California's workforce needs in the health sciences and to make recommendations regarding the University's capacity to respond to current and future supply and demand needs. The committee's work culminated in a major 2005 report titled, *University of California Health Sciences Education: Workforce Needs and Enrollment Planning*. Some of the findings of the UC report are highlighted below:

- In the absence of program expansion, California will likely face a shortage of between 5,000 and 17,000 physicians by year 2015. The shortfall is expected to result from statewide and regional population growth and from the aging of the physician workforce. Nearly 70% of California physicians are 45 years of age and older.
- California ranks 49th in the nation in the number of registered nurses per capita and will likely face a shortfall of 60,000 nurses by 2020. There also is a critical shortage of teaching faculty in university nursing programs. Presently, California must rely on other states and countries to supply nearly half of its RN workforce.
- Given emerging health threats, recent studies caution that the state and national public health workforce is deficient in crisis training and preparation.

- The demand for pharmaceutical workers will increase as the State's population ages. California currently ranks 48th in the nation in the number of pharmacists per capita. Additional factors fueling demand include: (1) development of new medications and drug therapies; (2) new uses for existing medications; (3) broader insurance coverage for some medications; and (4) growing need for pharmacists within the biotechnology industry.
- California currently ranks 49th in the nation in the number of veterinarians per 100,000 residents. Particularly acute is the need in the southern region of the state. Because of capacity limitations, the University of California, Davis, home to California's sole veterinary school of medicine, enrolls less than one in every four applicants. Factors influencing public demand include: (1) growth in the number of pets per household; (2) increased need for security against emerging diseases and bioterrorism; (3) greater need for veterinary livestock services to ensure agricultural and food safety; and (4) greater need for sophisticated diagnoses and treatment.

The University's Health Sciences Committee proposed a number of recommendations to address the workforce shortages just referenced. One overall conclusion reached by the committee is that UC should substantially increase enrollment levels in medicine, nursing, veterinary medicine, pharmacy, and public health, while maintaining current enrollment levels in dentistry and optometry. This will necessitate alternative plans for funding capital outlay and infrastructure needs to meet growing demand. If the expansion plans are adopted, and if requisite capital funding is made available, the committee recommends that UC continue to develop new curricula and teaching practices that reflect evolving health sciences technology and clinical practices. This will enable the university to remain at the forefront of using emerging technologies to enhance student learning and teaching.

The University's committee believed that expanding medical enrollments will require at a minimum, one, and possibly two, new UC comprehensive medical schools. Currently, California relies on out-of-state medical schools to supply 75% of this state's *osteopathic* and *allopathic* medical workforce. The term *osteopathic* refers to doctors that are trained to place emphasis on preventive medicine and holistic patient care, in addition to learning skills involving musculoskeletal manipulation. The degree, *Doctor of Osteopathic Medicine* (DO), is awarded to these individuals. The term, *allopathic*, refers to the comprehensive study of medicine and disease leading to the Doctor of Medicine Degree (MD). Students of allopathic medicine enter residency training and pursue practice in selected medical or surgical specialty areas. All of the UC medical schools provide allopathic instruction and training, whereas two private schools, Western University and Touro University, offer osteopathic programs (see Display 2).

Approximately 105,000 physicians are licensed to practice medicine in California. This number translates to a physician-to-population ratio that is near the national average. However, the University's committee found that severe shortages exist in many regions of the state, particularly in rural and remote areas, the Inland Empire, and parts of the Central Valley. Furthermore, the University reports that more than half of the counties in this state have at least one area that qualifies as a federally designated Health Professions Shortage Area. Highlighted below are some of the factors reported to the California Postsecondary Education Commission by UC that are forecast to contribute to a physician shortage of between 5,000 and 17,000 by year 2015.

- The number of medical student graduates from California schools has remained fairly constant over the past 20 years, while the state's population has been increasing annually.
- California ranks second only to New York in the number of U.S. residents affected by AIDS.
- 35% of California children are estimated to be overweight and 40% are believed to be physically unfit.
- 23% of adults are considered obese.
- More than 1.5 million Californians are living with asthma.

- Retirement rates of physicians exceed the number entering the workforce each year.
- Leading causes of death in California are heart disease, cancer, and stroke.
- There is growing evidence of disproportionate disease burdens and disparities in health status that are ethnically based.

The latter observation is a primary reason why the University's committee is adamant that UC continue to place a high priority on partnering with the State to increase the ethnic diversity, cultural makeup, and linguistic competence of the state's health workers. Display 2 shows the current number of students enrolled in California medical schools that are being trained to confront the entire range of challenges described above. Eight of the 10 schools shown are allopathic schools that grant the MD degree, while the remaining two offer osteopathic programs. Collectively, these schools are only able to accommodate about 1,300 first-year students and about 5,500 in total. As a result of this limitation, it is asserted that California now leads the nation in the number of prospective medical students that must complete their education outside of California. To increase capacity, the UC Health Sciences Committee recommended that the University admit more students at existing medical campuses while establishing up to two additional schools.

UC Riverside and UC Merced have each expressed an interest in establishing a comprehensive allopathic medical school. Although the Commission has not yet received a formal proposal, it appears from preliminary conversations with the UC Office of the President that UC Riverside is being given more consideration at the moment. Because the long-term cost for establishing such a school could approach nearly $1 billion, it is unlikely that the State would look favorably on any proposal without a strong recommendation from CPEC. During the next month, the Commission intends to establish an independent advisory committee to initiate more in-depth discussions with UC during this preliminary planning stage and to critically review any formal medical school proposal put forth by the University.

DISPLAY 2 Medical Student Education in California

California Medical Schools	First-Year Positions	Total Positions
UC Allopathic Medical Schools		
UC Davis	93	372
UC Irvine	92	368
UC Los Angeles**	169	676
UC San Diego	122	488
UC San Francisco*	153	624
UC Subtotal	629	2,540
Private Allopathic Medical Schools		
Loma Linda University	165	648
Stanford University	87	465
University Southern California	160	659
Private Subtotal	412	1,772
Osteopathic Schools		
Western University	176	700
Touro University	125	475
Osteopathic Subtotal	301	1,175
Grand Total	1,342	5,487

* Includes 12 students enrolled in the UC Berkeley-UCSF Joint Medical Program.

** Includes 24 students per year in the UCLA-Drew program and 24 per year in the UCLA-UCR program.

2. Education Doctoral Expansion Plans under Consideration by the California State University

Chapter 269 of the California Education Code, Statutes of 2005, authorizes the California State University to offer programs leading to the Doctor of Education Degree (EdD). Prospective programs are intended to prepare administrative leaders for the myriad challenges confronting the state's K-12 and community college systems. The education code requires that these programs be designed and operated in partnership with these systems. Previously, the State University was limited to offering the EdD only in partnership (jointly) with the University of California or with an independent college or university.

Commission staff met recently with CSU officials to seek assurance that existing CSU Joint Education Doctorate programs would not be arbitrarily dismantled as the CSU moves to develop and establish new independent education doctorate programs. The Commission staff considered the meeting necessary because considerable time and state resources have been invested in the development of joint programs that are designed to yield the same quality of outcomes that prospective independent programs under Chapter 269 are expected to deliver. Shown below are the CSU Joint Education Doctorate programs that currently exist.

Sacramento Area:

A Joint Doctoral Program in Educational Leadership that involves UC Davis, CSU Sacramento, and Sonoma State University. This program will focus on K-12 and community college administrators. It emphasizes visionary leadership and management, policy in practice, evidence-based decision making, and building a community in a diverse society.

South San Francisco Bay Area/Central Coast:

A Joint Doctoral Program in Educational Leadership that involves UC Santa Cruz, CSU Monterey Bay, and San Jose State University. This program is directed towards the needs of K-12 administrators that are employed in culturally and linguistically diverse schools located in Monterey, San Benito, Santa Clara, and Santa Cruz counties.

North San Francisco Bay Area

A Joint Doctoral Program in Educational Leadership that involves Sonoma State University, San Francisco State University, San Jose State University, and UC Berkeley. This program encourages doctoral students to undertake a dissertation related to compelling problems confronting local school districts of the North San Francisco Bay Area Region.

San Diego/Imperial Valley Region

A Joint Doctoral Program in Educational Leadership that involves UC San Diego, CSU San Diego, and CSU San Marcos. A primary intent of this program is to assist school administrators in making more informed administrative and policy decisions through theoretical and practical instruction in *evidence-based decision-making.* The program also seeks to assist administrators in proposing innovative solutions to community problems through an active research agenda.

In April 2006, CSU Chancellor Reed issued to CSU campuses a very detailed protocol that must be followed if they seek to discontinue a Joint Educational Doctoral Program. This was meant to reassure the Commission and the general public that the joint doctoral programs in educational leadership will not be discontinued arbitrarily. The procedures include the following:

- The campus president must discuss with the chancellor an intent to initiate a formal discontinuation process before the process begins.

- Substantial consultation among partnering systems (UC, CSU, K-14) in the region must occur early the process.
- Specific reasons for discontinuing the joint program, along with supporting detail must be provided.
- Plans must be developed that would allow currently enrolled students to earn their degrees.

Display 3 provides a tentative timeline proposed by the CSU for establishing independent doctoral programs at its campuses. Seven CSU campuses plan to start offering the independent doctorate in fall 2007. Appendix B outlines the CSU internal program review process to which campuses must adhere. It also identifies the role of the Commission in this process. Because of the complexities involved in reviewing doctoral programs, the Commission is requesting that the CSU submit proposals by January 31, 2007, for all campuses that wish to start offering the independent doctorate in fall 2007. The Commission will be especially interested in: (1) major findings from relevant Needs Assessment Studies describing specific regional challenges confronting school districts; and (2) detailed descriptions of how evaluative tools and procedures will be used at an appropriate time in the future to gauge the extent to which leadership programs are influencing school improvements.

DISPLAY 3 CSU Proposed Timeline for Establishing Independent Doctoral Programs in Educational Leadership

CSU Campus	Timeline
Fullerton	Fall 2007
Fresno	
Long Beach	
Sacramento	
San Bernardino	
San Diego	
San Francisco	
Bakersfield	Fall 2008
East Bay	
Los Angeles	
Northridge	
San Jose	
Stanislaus	
Chico	Fall 2009
Dominquez	
Humboldt	
Pomona	
Channel Island	Fall 2010
Monterey Bay	
San Luis Obispo	
San Marcos	
Sonoma	

3. Labor Market Forecasting Tool to Assist Local Community Colleges

California's community colleges spend considerable time assessing and reexamining local labor market data to ensure that their vocational and career technical programs continue to meet local workforce needs, and that their programs provide students with the necessary academic and technical skills to be

successful in the workplace. Labor market information also aids colleges in their decisions to add, enhance, or discontinue various training programs.

Recently, the Labor Market Division (LMI) of the Employment Development Department was asked to assist a Bay Area community college consortium in reaching a decision to retain or discontinue a particular vocational training program. Based on the assistance provided by LMI, which the consortium considered extremely helpful, LMI staff subsequently developed an Internet-based tool, called *LMI Help for Program Decision-Making*, which other community colleges might find helpful. The tool supports community college program planning through the use of a sequential process that relies on data related to local area wages, local area labor and supply, local competing occupations, and local area employers. A demonstration of this tool will be provided by LMI at the Commission's June meeting.

Program Proposals Reviewed By the Commission, 2005-06

Although each public higher education system in California has a unique mission and social purpose, the systems are united in a common and fundamental way: each aims to enhance the intellectual, technical, and creative capacity of its student learners. Because advanced knowledge -- scientific, technical, and procedural -- tends to be organized by fields of study, and delivered to students through specific programs, the ultimate success and benefit of the state's higher education enterprise rest with the quality and breadth of institutional degree and certificate programs.

California Community Colleges

The California Community College system is the largest two-year system in the nation. It serves approximately 1.7 million students and awards about 90,000 degrees and certificates annually in over 320 academic and vocational programs. Between 2002 and 2004, the Commission received and reviewed over 80 community college proposals to establish new programs. The high volume appeared to be responsive to growing occupational and industry planning needs in computer information systems, engineering, and the health sciences. No new programs were proposed during the current reporting period of 2005-06.

The California State University

All program proposals received from the State University during the reporting period were exempt from Commission review because they met each of five essential criteria shown below:

- The campus did not have to acquire significant resources for the program to reach a cost-effective level of operation, or there was demonstrated capacity to fund the program on a self-support basis.
- The program could be housed adequately with a major capital outlay project.
- The program is consistent with all existing state and federal laws and trustee policy.
- The program is a bachelors or masters degree program.
- The program was reviewed thoroughly by the campus and the CSU Chancellor's office.

In March 2006, the CSU Board of Trustees granted *planning authorization* to 45 prospective bachelors and masters degree programs. Planning authorization means that the campuses can proceed with developing a comprehensive program proposal. If a proposal does not meet the five criteria noted above, it must be submitted to the Commission for review and comment. The CSU reports that about half of the new program initiatives were submitted by the three most recently established CSU campuses, and that many of the proposals were in response to emerging employment opportunities in California and to technological advances in selected fields, such as engineering, biochemistry, and software engineering.

Appendix C contains a long-range listing of CSU undergraduate and graduate programs being proposed for implementation between 2006 and 2016; many will require either Commission review and comment or Commission approval.

The University of California

During the reporting period, the Commission reviewed proposals to establish 13 new UC graduate programs. As shown in Display 4, most of the programs were in the Humanities. For example, a new masters program in Creative Writing was proposed by UC San Diego; a PhD program in Music was proposed by UC Santa Cruz; and a new masters program in South East Asian Studies was proposed by UC Riverside. The Commission determined that each of the program proposals satisfied current program review guidelines with respect to program quality, student demand, societal need, and advancement of knowledge. The Commission, therefore, concurred with the recommendation to establish such programs.

Appendix D contains a long-range listing of University of California undergraduate and graduate programs being proposed for implementation between 2006 and 2016; many will require Commission review and approval.

DISPLAY 4 New Graduate Programs Proposed by the University of California, July 2005 through June 2006

Academic Proposal	Institution	Review Month
		2005
MS in Civil Engineering and Urban and Regional Planning	UCI	July
MAS in Clinical Research	UCSD	July
MFA in Creative Writing	UCSD	July
MS in Engineering	UCLA	August
MAS in Health Law	UCSD	August
MS/PhD in Horticulture and Agronony	UCSD	August
PhD in Human Development	UCSD	August
PhD in East Asian Languages	UCSB	September
PhD in Education	UCI	December
		2006
MA in South East Asian Studies	UCR	January
PhD in Music	UCSC	February
PhD in Development Biology	UCSF	April
MS/PhD in Statistics	UCI	May

As noted previously, the Commission anticipates receiving a number of proposals from the University in the near future for expanding program offerings in health science related fields. It is very likely that a proposal for a new medical school will be included. If so, an appropriate statewide advisory committee will be established to conduct a very through and comprehensive review of the proposal on behalf of the State.

Appendix A Commission's Program Review Guidelines

The California Postsecondary Education Commission is responsible statutorily for reviewing and commenting on the need for new degree and certificate programs proposed by the public higher education systems. The review process is intended to:

(1) Safeguard the state against inefficiencies in the allocation of program resources

(2) Help ensure that new programs will meet student and societal needs

(3) Ensure that programs are well conceived and that they will have desired educational and social consequences

Recent enhancements to the Commission's review process include greater emphasis placed on the long-range plans of the systems so that staff can consider prospective programs five years in advance of implementation. This has enabled the Commission to alert the systems of potential planning concerns early in the review process before formal proposals are submitted.

As defined in statute, the Commission's role in the review process is mostly advisory. However, in the case of Joint Doctoral Programs involving public and private institutions, the Commission has approval authority. The Commission's review process is guided by the following seven criteria.

1. Student Demand

Within reasonable limits, students should have the opportunity to enroll in programs of study in which they are interested and for which they are qualified. Therefore, student demand for programs, indicated primarily by current and projected enrollments, is an important consideration in determining the need for a program.

2. Societal Needs

Postsecondary education institutions bear a responsibility to fulfill societal needs for trained manpower and for an informed citizenry. Even though projecting manpower needs is far from an exact science, such projections are necessary because they serve as one indication of the need for an existing or proposed program. As a general rule, employment prospects constitute a more important consideration for programs oriented toward specialized occupational fields. Further, the local employment market tends to dictate more the need for specific certificate and associate degree programs. Although achieving and maintaining a perfect balance between manpower supply and demand in any given career field is nearly impossible, it is important nevertheless that the number of persons trained in a field and the number of job openings remain in reasonable balance.

3. Appropriateness to Institutional and Segmental Mission

Programs offered by public institution within a given system must comply with the delineation of function for that system, as set forth in the California Master Plan. Proposed new programs must also be consistent with the institution's own statement of mission and must be approved by the system's statewide governing body.

4. The Number of Existing and Proposed Programs in the Field

An inventory of existing and proposed programs, compiled by the Commission staff from the plans of all systems of postsecondary education, provides the initial indication of apparent duplication or undue proliferation of programs, both within and among the systems. However, the number of programs alone cannot be regarded as an indication of unnecessary duplication. This is because (a) programs with similar titles may have varying course objectives or content, (b) there may be a demonstrated need for the program in a particular region of the state, or (c) the program may be needed for an institution to achieve academic comparability within a given system.

5. Total Costs of the Program

The relative costs of a program, when compared with other programs in the same or different program areas, constitute another criterion in the program review process. Included in the consideration of costs are the number of new faculty required and the student/faculty ratios, as well as costs associated with equipment, library resources, and facilities necessary to deliver the program. For a new program, it is necessary to know the source of the funds required for its support, both initially and in the long run.

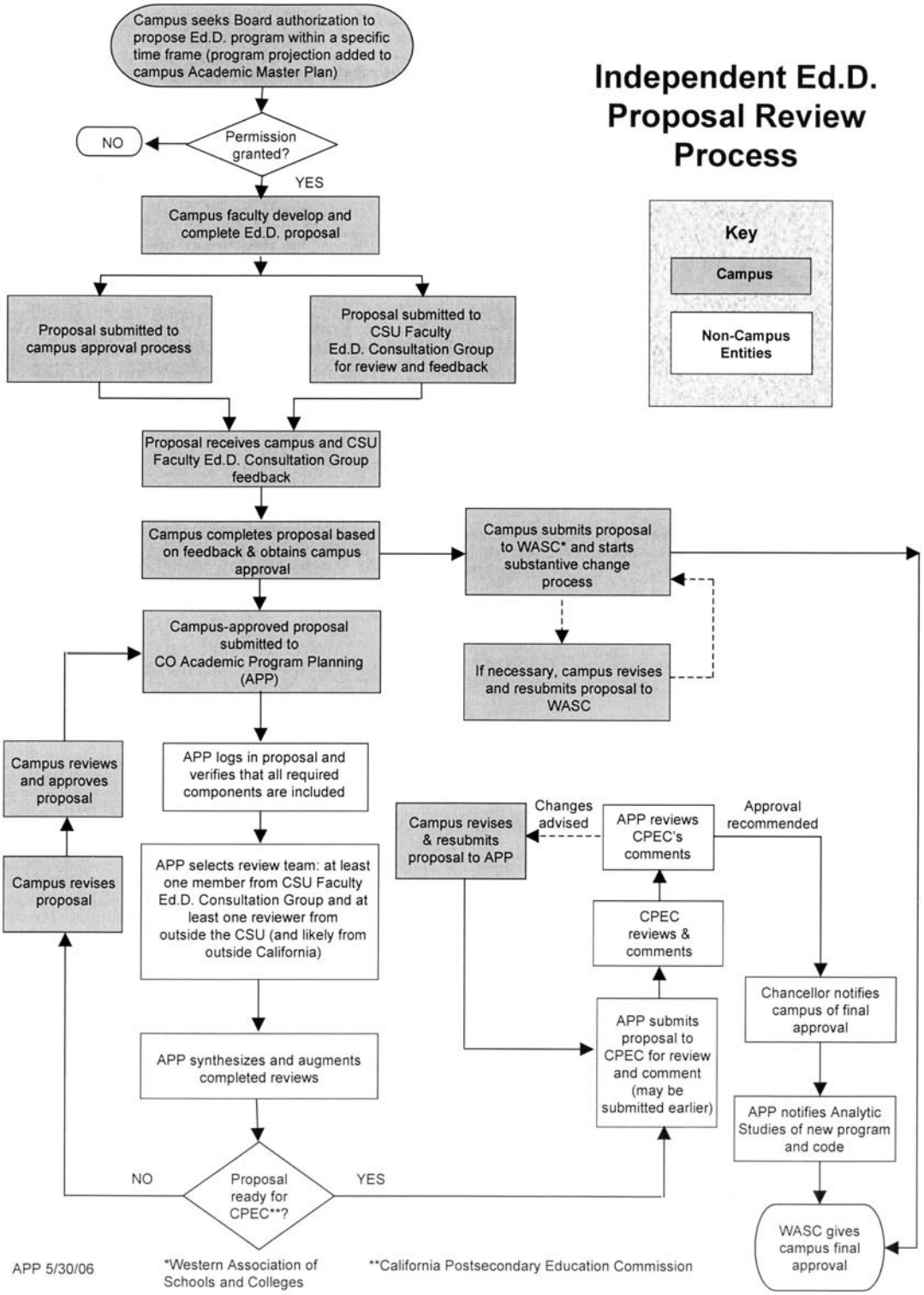
6. The Maintenance and Improvement of Quality

Protecting the public interest and trust requires that educational programs at all levels be high quality. Although the primary responsibility for the quality of programs rests with the institution and its system, the Commission, for its part, considers pertinent information to verify that high standards have been established for the operation and evaluation of the program. In the process, it is necessary to recognize that a proper emphasis on quality may require more than a minimal expenditure of resources.

7. The Advancement of Knowledge

The program review process encourages the growth and development of intellectual and creative scholarship. When the advancement of knowledge seems to require the continuation of existing programs or the establishment of programs in new disciplines or in new combinations of existing disciplines, such considerations as costs, student demand, or employment opportunities may become secondary.

Appendix B CSU Internal Review Process



Appendix C California State University

Attachment A
Ed. Pol. - Item 3
March 14-15, 2006
1

THE ACADEMIC PLANS:
Summary of Projected Programs and Requests
2006-2007 through 2015-2016

BAKERSFIELD

2007	MS	Computer Science
2008	**EdD**	**Education***
2009	BS	Computer Engineering
	BS	Electrical Engineering
	BS	Engineering

CHANNEL ISLANDS

2006	BA	Performing Arts
	BA	Political Science
2007	**BA**	**Communication***
	BA	Early Childhood Studies
	BS	**Nursing***
2008	BA	Applied Physics
	BA	Chicano/Chicana Studies
	BA	**Criminal Justice***
	BA	**Kinesiology***
	BS	Applied Physics
	BS	**Kinesiology***
	MA	English
2009	BA	Anthropology
	BA	**Philosophy***
	MS	**Biology***
2010	**BA**	**Multicultural Studies***
	BA	**Social Work***
	MA	**History***
	EdD	**Education***
2011	**BA**	**Geography and Urban Studies***
2012	**BS**	**Computer Engineering***
	MPA	**Public Administration***
2013	**MS**	**Nursing***

CHICO

2007	**BS**	**Biochemistry***
	BS	**Concrete Industry Management***
2009	**EdD**	**Education***

DOMINGUEZ HILLS

2006	BA	**Negotiation, Conflict Resolution, and Peacebuilding***
	MA	Communication Disorders

DOMINGUEZ HILLS (continued)

2006	MS	Computer Science
	MSW	Social Work
2007	BA	Child and Adolescent Development
	BS	Exercise Science
	MPH	Public Health
2008	BS	Sports, Entertainment, and Hospitality Management
2009	**MA**	**Spanish***
	MS	Exercise Science
	EdD	**Education***

EAST BAY

2008	**EdD**	**Education***

FRESNO

2006	MS	Forensic Science
	PhD	Criminal Justice Sciences (with UC Davis)
2007	DPT	Physical Therapy
	EdD	**Education***

FULLERTON

2007	**MSW**	**Social Work***
	EdD	**Education***
2008	**BS**	**Software Engineering***
	MS	**Engineering Management***
	MS	**Higher Education***

HUMBOLDT

2009	**EdD**	**Education***

LONG BEACH

2007	**EdD**	**Education***

***Newly proposed for Trustees "planning authorization." Implementation subject to approval by the Chancellor.**

Attachment A
Ed. Pol. – Item 3
March 14-15, 2006
2

LOS ANGELES

2006	BS	Exercise Science
	BS	Food Science and Technology
2007	MFA	Film, Television, and Theatre
	MS	Technology
2008	MS	Environmental Science
	EdD	**Education***

MARITIME ACADEMY

2007	**MS**	**Global Supply Chain Management and Security***
2008	**BS**	**Science and Mathematics***

MONTEREY BAY

2006	BA	Human Development
	MPP	**Public Policy***
2007	**BA**	**Psychology***
	BS	Biological Sciences
	BS	**Computer Science and Information Technology***
	MA	Critical and Applied Multicultural Studies
	MA	Teaching
	MS	**Instructional Technology and Communication Design***
2008	MA	Practical and Professional Ethics
2010	MS	Nursing
	EdD	**Education***

NORTHRIDGE

2006	BA	Languages and Cultures
	MILM	Information and Library Management
	MS	Manufacturing Systems Engineering
2007	**BS**	**Finance***
	BS	**Management***
	BS	**Marketing***
	MS	Computer Engineering
	MS	Software Engineering
	MS	Structural Engineering
	AuD	**Audiology** (with UCLA)
2008	**EdD**	**Education***

POMONA

2007	MA	Psychology
	MS	Accountancy

POMONA (continued)

2009	**EdD**	**Education***

SACRAMENTO

2006	**BA**	**Deaf Studies***
	BA	**Film Studies***
	MA	**Child Development***
	MA	School Psychology
	EdS	School Psychology
	MS	Health Care Administration
2007	**AuD**	**Audiology***
	EdD	**Education***

SAN BERNARDINO

2006	BS	Computer Engineering
	MA	Theatre Arts
	MS	**Environmental Science***
2007	BS	Information Systems and Technology
	MS	Accountancy
	MA	Child Development
	MA	Music
	MS	Special Education
	EdD	**Education***
2010	BS	Civil Engineering
	BS	Electrical Engineering
	BS	Mechanical Engineering
	MS	Kinesiology

SAN DIEGO

2006	**MA**	**Translation and Interpreting***
	MPH/MA	**Public Health/Latin American Studies*** (concurrent program)
2007	**BA**	**American Indian Studies***
	BS	Construction Engineering
	EdD	**Education***
	PhD	Earth Sciences (Geophysics) (with UC San Diego)
	PhD	Evolutionary Biology (with UC Riverside)
2008	PhD	Communication (with Fielding Graduate Institute)
	PhD	Hearing Science (with UC San Diego)
	PhD	Social Work (with USC)

***Newly proposed for Trustees "planning authorization." Implementation subject to approval by the Chancellor.**

Appendix D University of California

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2006 - 2011
BERKELEY

Proposed Programs	Degree	Status
UNDERGRADUATE PROGRAMS		
Proposals added for 2006 update are shown in **BOLD**		
Materials Chemistry	**B.S.**	**1**
Urban and Metropolitan Studies	B.A.	2
GRADUATE PROGRAMS		
Proposals added for 2006 update are shown in **BOLD**		
Bioengineering	M.Engr.	1
Bioengineering (w/ UCSF)	M.Engr., D. Engr.	1
Communications and Networking	M. Engr.	1
Environmental Science and Management	M.E.S.M.	1
Epidemiology (w/ UCSF)	Ph.D.	1
Internet-Based Design, Manufacturing, and Commerce	M. Engr.	1
Management of Technology	M. Engr.	2
Microelectromechanical Systems	M. Engr.	1
Product Development	Ph.D.	2
Public Health/Journalism	M.P.H./M.J.	1
Public Health/Nursing (concurrent with UCSF)	M.P.H./L.S.	2
Social Welfare/Public Health	**M.S.W./M.P.H.**	**3**
Transnational Feminist Studies	**M.A., Ph.D.**	**1**
Women's Studies	Ph.D.	1

Status of proposal: 1 suggested for 5-year list; 2 undergoing department review; 3 undergoing campus review; 4 undergoing CCGA/CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2006 - 2011
DAVIS

Proposed Programs	Degree	Status
UNDERGRADUATE PROGRAMS		
Proposals added for 2006 update are shown in **BOLD**		
Range & Wildlands	B.S.	discontinuance planned
Science & Technology Studies	B.A.	3
GRADUATE PROGRAMS		
Proposals added for 2006 update are shown in **BOLD**		
Audiology joint program UCD & CSU Sacramento	**AuD. & Ph.D.**	**3**
Chemical Engineering (Jt. Program w/ Middle East Technical University, Turkey)	Jt. Ph.D.	2
Communication	Ph.D.	1
Community Development	Ph.D.	2
Computational Science & Engineering	**M.S. & Ph.D.**	**1**
Forensic & Behavioral Sciences (w/ CSU Fresno, Sacramento, Stanislaus)	Jt. Ph.D.	4
Design	M.F.A.& M.S.	2
Ecology (formerly Plant Ecology) w/ CSU Chico	Jt. Ph.D.	3
Energy Systems, Technology, & Policy	**M.S. & Ph.D.**	**1**
Environmental Policy & Management	M.S.	2
Health Informatics	Ph.D.	2
Family Nurse Practitioner/Physician Assistant Program	**M.H.S.**	**1**
Mathematics (Co-terminal B.S./Credential)	Credential	1
Medical Speech/Swallowing Sciences & Disorders w/ CSU Sacramento	**Ph.D.**	**3**
Modernism and Modernity	**Ph.D.**	**1**
Nursing (w/ UCSF)	Ph.D.	2
Plant Ecology (Jt Graduate Group w/ CSU Chico)	**Ph.D.**	**2**
Public Health, Phase 2	**M.P.H.**	**1**
SCHOOLS and COLLEGES		
Graduate School of the Environment		3
School of Public Health		2

Status of proposal: 1 suggested for 5-year list; 2 undergoing department review; 3 undergoing campus review; 4 undergoing CCGA/CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2006 - 2011
IRVINE

Proposed Programs	Degree	Status
UNDERGRADUATE PROGRAMS		
Proposals added for 2006 update are shown in **BOLD**		
Biotechnology	B.S.	1
Chinese Studies	B.A.	2
Engineering Design Software	B.S.	2
Environmental Health	B.A.	2
Environmental Health Science	B.S.	2
Human Biology	**B.S.**	**1**
Information & Computer Science	B.A.	1
Japanese Studies	B.A.	2
Latin	B.A.	2
Nursing Science	B.S.	2
GRADUATE PROGRAMS		
Proposals added for 2006 update are shown in **BOLD**		
African American Studies	M.A.	2
Clinical Sciences	**M.S./Ph.D.**	**2**
Cognitive Neuroscience	Ph.D.	2
Computer Science	M.S./Ph.D.	1
Computer Science and Engineering	M.S./Ph.D.	1
Criminology, Law & Society	Ph.D.	2
Engineering Design Software	M.S./Ph.D.	2
Environmental Engineering	M.S./Ph.D.	1
Informatics	M.S./Ph.D.	2
Information & Computer Science & Business Administration	M.B.A./M.S.	2
International Studies	M.A.	2
Latino Community Health	**M.A.**	**2**
Molecular Medicine & Therapeutics	**Ph.D.**	**2**
Music	M.M.	2
Music	M.F.A.	discontinuance planned
Neuroscience	**Ph.D.**	**2**
Nursing Practice, Doctor of	D.N.P.	2
Nursing Science	M.S./Ph.D.	2
Pharmaceutical Sciences	M.S./Ph.D.	2
Political Science	**M.A.**	**2**
Psychology	**M.A.**	**2**
Public Health	M.S.P.H., Ph.D.	1
Public Policy	M.P.P.	1
Stem Cell Biology Concentration	**M.S.**	**2**
SCHOOLS & COLLEGES		
School of Design		3
School of Law		**4**

Status of proposal: 1 suggested for 5-year list; 2 undergoing department review; 3 undergoing campus review; 4 undergoing CCGA/CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2006 - 2011

LOS ANGELES

Proposed Programs	Degree	Status
UNDERGRADUATE PROGRAMS		
Proposals added for 2006 update are shown in **BOLD**		
Art	**B.F.A.**	**1**
Architectural and Urban Studies	B.A.	2
Armenian Studies	B.A.	2
Environmental Studies (interdepartmental)	**B.S.**	**1**
Information Studies	B.A.	2
Music	B.M.	2
Social Complexity	B.A.	2
GRADUATE PROGRAMS		
Proposals added for 2006 update are shown in **BOLD**		
Chicana/Chicano Studies	M.A./Ph.D.	2
Communication Studies	Ph.D.	2
Design Media Studies	**Ph.D.**	**1**
Education/Management (concurrent degree program)	M.A./M.B.A.	2
Engineering	M.S.	2
Geographical Information Systems	MSGIS	2
Law and Philosophy	**J.D./M.A.; J.D./Ph.D.**	**1**
Medical Informatics	M.S./Ph.D.	1
Nursing Administration	M.S.N.	3
Public Administration (school-wide)	**E.M.P.A.**	**1**
Technology Management	M.Engr.	on hold

Status of proposal: 1 suggested for 5-year list; 2 undergoing department review; 3 undergoing campus review; 4 undergoing CCGA/CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2006 - 2010*
MERCED

Proposed Programs	Degree
Plans for 2006 - 07	
Bioengineering	M.S./Ph.D.
Chemical Sciences	B.S.,M.S.,Ph.D.
Computer & Information Systems	M.S./Ph.D.
Economics	B.A.
Human Biology	M.A./Ph.D.
Literature & Cultural Studies	B.A.
Literature & Languages	B.A.
Materials Science Engineering	B.S.,M.S.,Ph.D.
Mathematical Sciences	B.S.,M.S.,Ph.D.
Mechanical Engineering	B.S.
Mechanical Engineering	M.S./Ph.D.
New Energy	B.A., B.S.
Physics	B.S.,M.S.,Ph.D.
Public Policy	B.S.,M.S.,Ph.D.
World Cultures	M.A./Ph.D.
Plans for 2007 - 08	
Electrical Engineering	B.S.,M.S.,Ph.D.
Plans for 2008 - 09	
Engineering Economics & Management	B.S.,M.S.,Ph.D.
Plans for 2009 - 10	
Chemical Engineering	B.S.,M.S.,Ph.D.
Plans for 2010 - 2011	
Civil Engineering	B.S.,M.S.,Ph.D.
Plans for 2007 - 08 through 2009 - 10	
Biochemistry	B.S.
Ecology & Evolutionary Biology	B.S.
Two-three additions each year will be selected from the following:	
Anthropology	B.A./B.S.
Comparative Ethnic & Cultural Studies	B.A.
Creative Writing	B.A.
Economics	Ph.D.
History	B.A.
History of Art	B.A., Ph.D.
Performance Studies	B.A.
Political Science	B.A.
Psychology	B.A./B.S.
Security Studies	M.A./M.S.
Sociology	B.A.
Spanish language & Cultures	B.A.
World Cultures Studies	M.A./Ph.D.

* UC Merced Perspectives for four years 2006-2010

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2006 - 2011
RIVERSIDE

Proposed Programs	Degree	Status
UNDERGRADUATE PROGRAMS		
Proposals added for 2006 update are shown in **BOLD**		
Bioengineering	B.S.	2
Business Administration: integrated 5-year program	B.S./M.B.A.	2
Civil & Construction Management Program	**B.S.**	**1**
Digital Arts (Art & Engineering)	B.S.	1
Foreign Languages/Administrative Studies	B.A.	1
Japanese	B.A.	1
Materials Science & Engineering	**B.S.**	**1**
Public Policy Analysis	B.A.	1
Southeast Asian Studies	B.A.	1
GRADUATE PROGRAMS		
Proposals added for 2006 update are shown in **BOLD**		
Accounting (AGSM)	M.S.	1
Astrophysics	M.S./Ph.D.	1
Bioengineering (BCOE)	M.S./Ph.D.	2
Digital Arts	Ph.D.	2
Dispute Resolution and Negotiation	M.A.S.	2
Engineering Management	M.A.S.	1
Engineering Management	M.S.	1
Environmental Sciences	M.S./Ph.D.	1
Ethnic Studies	M.A./Ph.D.	2
Executive Master of Business Administration	M.B.A.	2
Family and Child Studies	M.A.S.	2
History of Art	**Ph.D.**	**1**
Linguistics	Ph.D.	2
Management	M.S./Ph.D.	2
Materials Science & Engineering	**M.S.**	**1**
Media and Performance Studies	M.A./Ph.D.	2
Music	**Ph.D.**	**2**
Public Policy	M.A./Ph.D.	2
Women's Studies	M.A.	2
SCHOOLS		
School of Law		**4**
School of Medicine	**M.D.**	**1**
School of Public Policy	**M.P.P./Ph.D.**	**1**

Status of proposal: 1 suggested for 5-year list; 2 undergoing department review; 3 undergoing campus review; 4 undergoing CCGA/CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2006 - 2011
SAN DIEGO

Proposed Programs	Degree	Status
UNDERGRADUATE PROGRAMS		
Proposals added for 2006 update are shown in **BOLD**		
Environmental Systems (Environmental Engineering)	B.S.	3
International Affairs	B.A./M.I.A.	3
Marine Biology	**B.S.**	**1**
Marine Science	**B.S.**	**1**
Pharmacological Chemistry	**B.S.**	**4**
Visual Arts (specialization in Public Culture)	B.A.	1
GRADUATE PROGRAMS		
Proposals added for 2006 update are shown in **BOLD**		
Architecture-based Enterprise Systems Engineering	M.S.	1
Biotechnology	M.A.S.	1
Computational Science, Mathematics & Engineering	M.S./Ph.D.	3
Computer Science and Engineering	M.Eng.	1
Critical Gender Studies	Ph.D.	1
Earth Sciences -- Geophysics (w/ San Diego State University)	Ph.D.	2
Education Studies	Ph.D.	1
Finance	**Ph.D.**	**1**
Human Development	Ph.D.	4
Information Technology Innovation	M.Eng., Ph.D.	1
International Affairs	M.I.A.	3
Latin American Studies -- Cultural Studies	**M.A.**	**3**
Management/Business Education	M.B.A./Ph.D.	3
Mechanical & Aerospace Engineering	M.Eng.	3
Medical Physics	M.S., Ph.D.	1
Pharmacy	D. Pharm	1
Public Health -- concentration in International Public Health	**M.A.**	**1**
Special Education (w/ San Diego State)	Ed.D.	2
Visual Arts -- Art History, Theory & Criticism	Ph.D.	3
ACADEMIC UNITS		
Center for Law and Public Policy		**1**
SCHOOLS & COLLEGES		
Seventh College		1

Status of proposal: 1 suggested for 5-year list; 2 undergoing department review; 3 undergoing campus review; 4 undergoing CCGA/CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2006 - 2011
SAN FRANCISCO

Proposed Programs	Degree	Status
GRADUATE PROGRAMS		
Proposals added for 2006 update are shown in **BOLD**		
Audiology (w/ CSU San Francisco)	**AuD.**	**2**
Bioengineering (w/ UCB)	M.Engr., D. Engr.	1
Biological and Medical Informatics	M.S./Pharm.D.	on hold
Cancer Pharmacogenomics	Pharm.D.	on hold
Clinical Informatics & Modeling of Complex Systems	Pharm.D.	on hold
Dental Hygiene	M.S.	2
Epidemiology (w/ UCB)	Ph.D.	on hold
Global Health Sciences	M.S./Ph.D.	2
Health Policy Research -- Trans-disciplinary	Ph.D.	2
Health Psychology & Behavior Neurosciences	Ph.D.	on hold
Health Psychology & Behavior Neurosciences (w/ UCB)	Ph.D.	1
Nursing (w/ UCD)	Ph.D.	1
Physical Therapy (w/ CSU Fresno)	Jt. D.P.T.	4
Post Baccalaureate Doctor of Pharmacy	Pharm.D.	on hold
SCHOOLS		
School of Advanced Health Studies		2

Status of proposal: 1 suggested for 5-year list; 2 undergoing department review; 3 undergoing campus review; 4 undergoing CCGA/CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2006 - 2011
SANTA BARBARA

Proposed Programs	Degree	Status
UNDERGRADUATE PROGRAMS		
Proposals added for 2006 update are shown in **BOLD**		
Biotechnology and Pharmacology	B.S.	1
Language, Culture and Society	B.A.	2
Materials Chemistry	**B.S.**	**1**
Mathematics & Empirical Finance	B.S.	1
Native American Studies	B.A.	1
GRADUATE PROGRAMS		
Proposals added for 2006 update are shown in **BOLD**		
Applied Linguistics	M.A.	2
Art	M.A.	2
Asian American Studies	M.A./Ph.D.	2
Bioengineering & Bio-Physical Science	M.S./Ph.D.	2
Biotechnology and Pharmacology	M.S.	1
Black Studies	M.A./Ph.D.	2
Communicative Practices in Community Contexts (w/ San Diego State)	Jt. Ph.D.	1
Dance	M.F.A.	2
Earth Surface Sciences	Ph.D.	2
Geophysics	M.S./Ph.D	2
Materials (w/ Ecole Polytechnique, France)	Ph.D.	2
Materials Chemistry	**M.S.**	**1**
Mathematics & Empirical Finance	M.S.	2
Technology Management & Commercialization	M.S.	2
Women's Studies	M.A./Ph.D.	3
Writing for Performance	M.F.A.	1

Status of proposal: 1 suggested for 5-year list; 2 undergoing department review; 3 undergoing campus review; 4 undergoing CCGA/CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2006 - 2011
SANTA CRUZ

Proposed Programs	Degree	Status
UNDERGRADUATE PROGRAMS		
Proposals added for 2006 update are shown in **BOLD**		
Biology	B.A.	1
Biomolecular Engineering	B.S.	1
Computer Game Engineering	**B.S.**	**2**
GRADUATE PROGRAMS		
Proposals added for 2006 update are shown in **BOLD**		
Applied Mathematics and Statistics	M.S./Ph.D.	1
Autonomous Systems	M.S./Ph.D.	2
Biomolecular Engineering	M.S./Ph.D.	1
Coastal & Marine Policy	M.S./Ph.D.	1
Comparative U.S. Studies	Ph.D.	1
Engineering	**M.Eng.**	**2**
Engineering Management	M.S./Ph.D.	1
Feminist Studies	Ph.D.	1
Information Systems & Technology Management	M.S./Ph.D.	1
Latin American & Latino Studies	Ph.D.	2
Performance Practice	M.F.A.	2
Planetary Sciences	**M.S./Ph.D.**	**2**
Remote Sensing/Geographic Information Systems	**M.S.**	**2**
Software Engineering	M.S./Ph.D.	1
Visual Art	M.F.A.	2
Visual Culture	Ph.D.	1
SCHOOLS		
School of Management		**2**

Status of proposal: 1 suggested for 5-year list; 2 undergoing department review; 3 undergoing campus review; 4 undergoing CCGA/CPEC review