I. Minutes: Approval of the April 14, 1992 Academic Senate minutes (pp. 2-6).

II. Communication(s) and Announcement(s):
   A. Documents on File in the Academic Senate Office (p. 7).
   B. Memo Irvin to Department Chairs/Heads re Teacher/Scholar: Summer Institute for Faculty in the CSU, June 15-18, 1992 (p. 8).
   C. Memo Angley to Koob re Ornamental Horticulture Department Changes (pp. 9-11).

III. Reports:
   A. Academic Senate Chair
   B. President's Office
   C. Vice President for Academic Affairs' Office
   D. Statewide Senators
   E. CFA Campus President
   F. ASI Representatives

IV. Consent Agenda:
   Resolution on Election to University Professional Leave Committee—DeMers, Chair of the Constitution and Bylaws Committee (p. 12).

V. Business Item(s):
   A. Resolution on Review of Proposal for Graduate Studies at Cal Poly—Shelton, Chair of the Long-Range Planning Committee, second reading (pp. 13-15).
   B. Resolution on Budget Process—Rogers, Chair of the Budget Committee, second reading (pp. 16-17).
   C. Resolution on Graduate Studies at Cal Poly—Lucas, Chair of the Graduate Studies Committee, first reading (pp. 18-28).
   D. Resolution on Time Limit to Obtain Degree—J Murphy, Chair of the Instruction Committee, first reading (p. 29).
   E. Resolution on Curriculum—Bailey, Chair of the Curriculum Committee, first reading (pp. 30-34).
   F. Election of Academic Senate officers for the 1992/93 term—Hanson, Chair of the Elections Committee.

VI. Discussion Item(s):

VII. Adjournment:
<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/2/92</td>
<td>Memo/attachments, Kerschner to Presidents, re &quot;Recommendations from Panel of Experts on Campus Climate&quot;</td>
</tr>
<tr>
<td>3/10/92</td>
<td>Memo/attachments, Wilcox to Campuses, re &quot;Senate Positions on Budget Issues (Policy Position re '92/93 CSU Budget Requests and Proposed Student Fees and Dealing with Reduced Funding: Maintaining the Quality of the Educational Program)&quot;</td>
</tr>
<tr>
<td>3/11/92</td>
<td>Campus responses to the Academic Senate CSU Resolution &quot;The Student-Athlete in the CSU&quot;</td>
</tr>
<tr>
<td>3/12/92</td>
<td>Memo/attachments, Wilcox to Senate Chairs, re &quot;Proposed Changes in Legislation Covering the Basic Teaching Credential&quot;</td>
</tr>
<tr>
<td>3/12/92</td>
<td>Memo/attachments, Wilcox to Munitz, re &quot;Status of Senate Resolutions&quot; acted on at March 5-6, 1992 meeting</td>
</tr>
<tr>
<td>3/16/92</td>
<td>Memo, anonymous author, re rules for establishing priorities during the &quot;Budget Crisis at Cal Poly and the CSU System&quot;</td>
</tr>
<tr>
<td>3/24/92</td>
<td>Memo/attachments, Suess to Deans, re &quot;Appointment and Payroll Procedures for Summer Quarter 1992&quot;</td>
</tr>
<tr>
<td>3/27/92</td>
<td>Memo/attachments, Wilcox to Senate Chairs, re &quot;Urgent Requests&quot; for community action and communication regarding the CSU funding crisis</td>
</tr>
</tbody>
</table>
MEMORANDUM

To: Department Chairs/Heads

Date: April 6, 1992

cc: Schools Deans

From: Glenn W. Irvin, Associate Vice President
       for Academic Affairs

Subject: Teacher/Scholar: Summer Institute for Faculty in The California State University, June 15-18, 1992

Attached is a brochure providing information on the Teacher/Scholar Summer Institute for faculty which consists of a program of individual workshops to be conducted during the week of June 15-18, 1992, on the campus of California State University, Pomona (Kellogg West Conference Center).

The attached brochure describes the topics that will be presented at the workshops. Therefore, faculty members interested in participating should submit an application to me through their department and dean's office as soon as possible.

The application and registration forms are in the brochure.

Registration at the Chancellor's Office will begin on May 4, and end on May 20, 1992. This is on a first-come, first-registered basis. It is quite likely that most workshops will be filled before the closing date for reservations.

The Chancellor's Office is paying for meals and lodging (lodging and meals will be provided at the Kellogg West Conference Center). Registration fees are $25 for each two-day workshop and $15 for each one-day workshop payable in advance to the CSU foundation. My office has been allocated approximately $500.00 to cover transportation costs which we will allocate on a first-come, first-served basis to applicants. Registration fees are to be paid by the department or school of the participant.

I encourage your participation in this worthwhile institute.

Attachment: Brochure
TO: Robert Koob  
VP for Academic Affairs  

cc: W. Bremmer  
S. Kaminaka  
L. Rathbun  

VIA: Joe Sabol, Dean  
School of Agriculture  

FROM: Steve Angley, Professor  
Department Head  

SUBJECT: ORNAMENTAL HORTICULTURE DEPARTMENT CHANGES  

In spring of 1991 the fourteen-member campus committee made recommendations that it appeared that there was considerable duplication between the O.H. Department and the Landscape Architecture Department. They also recommended that the floral design portion of our program be reduced. We as a department felt compelled to address these concerns, so the following is what has been done and what will occur between now and 1994.

I would like to first report on our work with the Landscape Architecture Department.

During the summer quarter 1991 Gerry Smith and I met on three occasions to discuss the best way to address our charge. We chose to first make available to him all course materials for each of our O.H. design type classes. These included OH 101, OH 250 (X301), OH 320, OH 321, OH 322 (included in this packet on a separate page are course titles and descriptions). The course materials included expanded course outline lab workbooks and sample projects required in classes.

Gerry and I further agreed that we would proceed with several objectives in mind.
1. Explore integration and elimination of duplication;
2. Clearly articulate the direction of each department;
3. Establish clear and complementary department images;
4. Establish an attitude of mutual respect and cooperation between departments;
5. Create courses that consolidate subject matter to each profession;
6. Develop shared courses where appropriate;
7. Encourage joint or shared teaching assignments;
8. Establish a task force made up of faculty of both departments to develop, monitor and address this process.

During fall quarter 1991 Dale Sutliff (L.A.), Walt Bremmer (L.A.), George Newell (O.H.), Gerry and myself met and discussed these objectives. Cohesion of this group has been difficult for the following reasons. Patti Breckenridge, who coordinates our design courses in O.H. was on sabbatic for summer and fall quarters. Gerry Smith left for a one-year sabbatic the end of fall quarter. Dale Sutliff left for a two-quarter sabbatic at the end of fall quarter.

Regardless, Walt Bremmer (Acting Head for L.A.) and I have continued our progress. Patti Breckenridge (O.H.) and Brian Aviles, both of whom returned from sabbaticies, have been working with Walt and myself during winter quarter 1992.
We have reached closure on most of our objectives and a draft of this agreement will be forthcoming very shortly. In the interim I will allude to our results.

First we agree that there is no duplication of courses between our departments. The courses in O.H. are much broader and more shallow in scope than any courses in L.A. As an example our OH 101 drafting class introduces our students to concepts that are covered in L.A. in three or four courses (EDES 110, LA 111, Lab 112 and Lab 311). The reason is that our students need to have awareness of these concepts but do not require the depth of coverage that L.A. students need. Our intent is not to develop professional designers. However our students must understand, appreciate, and work with many of these concepts.

It has been agreed that O.H. will drop OH 322, Advanced Landscape Design. Even though it does not duplicate any L.A. course, we agree that our students who want to pursue advanced design can do it within current L.A. class offerings. In addition OH 320, Media Presentations will be changed to delete model building and other aspects of design. It is planned to be changed to more of a computer application for horticulture course.

OH 101 and OH 250 (X301) will remain in the O.H. curriculum because no L.A. class exists which introduces students to this material in only two courses. We are planning name changes for both courses. OH 101 will change to Principles of Horticultural Drafting; OH 301 to Principles of Landscape Horticulture.

The OH 321 Residential Design class will remain in O.H., but our plan is to work with the L.A. Department to cross list the course and possibly team teach it with their department. They want to have a small scale design class available for their students. So this course will serve both L.A. and O.H. students.

Beyond the design area, we have agreed to make several other changes between our departments.

First we have offered two plant identification classes as support classes to the L.A. Department -- OH 237-238 Landscape Plants I and II. For 1992-94, they were to change to OH 238 and OH 308. O.H. students have three required plant materials classes -- OH 231-232-233.

We have agreed to make some changes to our OH 231-232 classes so the L.A. and O.H. students will take the same courses. So we will drop our OH 238 and OH 308 classes. We expect this to occur by spring of 1993.

Our OH 381 Native Plants will also be made available to L.A. students.

We feel that these changes represent significant changes that will strengthen both programs and serve our students better.

The second area of contention about our department brought forward last spring was the floral design portion of our program. I would like to start this portion by saying that floral design has just as much a place at a university as art or music. Floral design represents an art form. It happens to deal with a perishable product rather than paints and canvas. Our department, however, has chosen to place our emphasis elsewhere. We are optimistic that the agreement with Cuesta College will offer our floral designers the opportunity for training in this area. We plan to maintain three courses related to floral design which will allow the Cuesta students a good base in floral design. With
limited resources and looking to our future, we have decided on the direction we wish to proceed. In order for us to accomplish this change of emphasis we are planning several changes, the first of which is the deletion of 10 courses from our curriculum. They are:

- OH 145 Bonsai Culture (2)
- OH 238 Landscape Plants I (3)
- OH 251 Ikebana (3)
- OH 252 Continental Mass Design (3)
- OH 253 Stylized Western Design (3)
- OH 308 Landscape Plants II
- OH 322 Advanced Landscape Design (4)
- OH 329 Advanced Floral Design (4)
- OH 338 Advanced Plant Propagation (4)
- OH 426 Tissue Culture Propagation II (1)

We plan to delete these courses in order to concentrate on Production Horticulture, Landscape Contracting/Management and Specialized Sports Turf.

We have closely evaluated each of our course offerings to identify and correct inefficiencies. We have reduced many course offerings to once a year with multiple lab sections and are dropping most low enrollment classes.

For the 1994-96 catalog cycle we are proposing significant curriculum changes. We are deleting concentrations and offering more options, which offer more flexibility for our students. This change should help shorten their time at Cal Poly. We are also offering our majors the opportunity to obtain a minor such as in Business, ABM, or Water Management within the 198 unit requirement. We also plan for the addition of Physics and Genetics to our requirements. Currently we require an extensive number of science courses: BOT 121 General Botany, BOT 123 Plant Taxonomy, BOT 324 Pathology, BOT 322 Plant Physiology, CHEM 121-122 General Chemistry, CHEM 326 Organic Chemistry, SS 121 Soil Science, SS 122 Fertilizers, and an additional approved science elective. We feel very strongly that a Bachelor of Science degree should have strong science requirements.

Enclosed are some of the options models we plan to have for our students.

We feel these changes are significant, that they show our dedication to improvement and that we are prepared to meet the future needs of our students and our industry. We are forming an advisory committee, and plan to apply to the Associated Landscape Contractors of America to become certified by their organization. Our department has a rich history of being a leader in horticulture education nationally and within California. We plan to preserve that distinction into the 21st Century.

I would like for you to come to one of our faculty meetings in the near future to give us your reaction to what we have done and our plans for the future. We feel we have reacted positively to correct identified areas of concern by the Academic Senate Committee. We also want to plan our future in concert with the direction and focus of the university.

Our faculty meetings are Tuesdays at 11:10 A.M. in 11-103. We would like to extend an invitation to you to meet with us at your earliest convenience.
Adopted:

ACADEMIC SENATE
OF
CALIFORNIA POLYTECHNIC STATE UNIVERSITY
San Luis Obispo, California

AS- -92/
RESOLUTION ON
ELECTION TO UNIVERSITY PROFESSIONAL LEAVE COMMITTEE

WHEREAS, Members of the University Professional Leave Committee (UPLC) are elected by tenured and probationary faculty; and

WHEREAS, Academic Senate Bylaw section VII.115.a. is misleading and does not specify by whom members may be elected; and

WHEREAS, The Academic Senate Bylaws do not coincide with the University Leave With Pay Guidelines relating to election processes and staggering of elections for the UPLC; therefore, be it

RESOLVED: That Academic Senate Bylaw section VII.115.a. be changed as follows:

15. University Professional Leave Committee
   a. Membership
      (1) Members of the University Professional Leave Committee shall be elected. One member shall be elected from each school and the library by tenured and probationary faculty unit employees from the school and library, respectively. The member representing the library shall be elected from and by the library faculty rather than from Professional Consultative Services in general.

      (2) Faculty eligible for membership are tenured, not on a school/library professional leave committee, and not applying for a leave with pay.
      (i) membership for the Schools of Agriculture, Business, and Engineering shall be elected in the spring of odd-numbered calendar years.
      (ii) membership for the schools of Architecture and Environmental Design, Liberal Arts, Science and Mathematics, and the Library shall be elected in the spring of even-numbered years.

Proposed by the Academic Senate
Constitution and Bylaws Committee
Date: April 21, 1992
RESOLVED: That the attached Review of Proposal for Graduate Studies at Cal Poly be accepted and forwarded to the Graduate Studies Committee; and be it further

RESOLVED: That the final draft of the Graduate Studies Proposal be submitted to the Academic Senate for review and approval.

Proposed By: The Academic Senate Long-Range Planning Committee
Date: March 31, 1992
Revised: April 16, 1992
The Long-Range Planning Committee (LRPC) reviewed the October 3, 1991 proposal initiated by the Graduate Studies Committee for Graduate Studies at Cal Poly. In making this review, they also referred to the 1989 Report of the Advisory Committee to Study Graduate Education in the CSU (Graduate Education in the California State University: Implementation Plan for Meeting Public Needs Consistent with Educational Priorities and the Recommendations on Graduate Education) approved by the Trustees at the September 11, 1991 meeting.

In general, the LRPC agreed with the Cal Poly proposal. Since Cal Poly is committed to a graduate program limited to 10 to 15 percent of the overall enrollment each graduating class, that program should be a quality program. Many of the current graduate programs need to be upgraded in order to satisfy the definition of quality stated in the Trustees' Implementation Plan. Current programs need to be reviewed critically to determine their quality and the requirements for improving them. The proposal from the Graduate Studies Committee has many good recommendations for doing this.

An extremely important point is that any change in the graduate programs at Cal Poly should not erode the funding support base for undergraduate studies, which remain the primary mission of the institution. Many items in the proposal, such as the statement on page five, "Graduate programs shall be allocated the resources necessary for their development and maintenance," are so general and may be interpreted in so many ways that resources could be pulled from undergraduate education and redirected to graduate programs. It seems unlikely that additional state funding will be available to the campus to augment funding for graduate programs. The LRPC recommends that additional funding for graduate studies at Cal Poly be sought from sources outside the general fund. This includes aggressive pursuit of funding for graduate fellowships. Both graduate and undergraduate programs require adequate funding and neither should suffer at the expense of the other.

The recommendation on page six, "that the key university-wide services supportive of graduate studies be focused in a single office in the line administration" was another area of concern to the LRPC. While all agree there should be a central office to contact for general information, this does not mean that ALL graduate studies support functions are best conducted in a single office. The functions of admissions and record keeping are perhaps best handled by the centralized processing that now
occurs. This allows the university to have specialists in the areas to keep abreast of campus, system-wide, state, and federal regulations regarding procedures, student records, and student rights. A separate graduate application form was recommended by the 1989 Advisory Committee report. This seems like a good idea. It might be possible to more clearly define graduate program roles for certain individuals within the current service offices. The single point of contact could be achieved within the current graduate studies structure since the information necessary is available in the SIS Plus system; however, the point of contact should be highly visible and located in an area of normal student traffic. Graduate coordinators in each degree program need to work closely with department faculty to insure that master's candidates have been accepted by a faculty committee/advisor before enrolling in graduate courses.

The graduate programs at Cal Poly should adhere to most of the standards in the Trustees-approved Implementation Plan; however, there were some distinct areas of concern in this regard. Recommendation 1.a.3 calls for a core curriculum where appropriate. The appropriateness should be determined by the faculty involved with the program at the local campus level. Recommendations 2 and 5 should not detract from nor erode the funding base for undergraduate instruction. Dollars earmarked for graduate studies should be in addition to undergraduate support, not merely dollars shifted from undergraduate support to graduate support. These dollars should be real added dollars in the budget. Similarly, funds generated by graduate programs should NOT be allocated to undergraduate instruction (proposal, page 4), but rather used to maintain or improve graduate program quality. Recommendation 3 would require 70 percent of the course work in a program to be at the graduate level. This is a standard which is above what has been the national standard for graduate programs in the U.S. In addition, this would impose a hardship on low-enrollment graduate programs by increasing the need for graduate level courses, many of which would have less than break-even enrollment. The LRPC questions the system-wide implementation of this standard.

The concerns discussed here should be addressed by the Graduate Studies Committee before seeking final approval of the graduate studies proposal.
Adopted:

ACADEMIC SENATE
OF
CALIFORNIA POLYTECHNIC STATE UNIVERSITY
San Luis Obispo, California

Background Statement: The CSU is now faced with budget reductions of unprecedented proportions. In addition, there has not been a timely involvement of the faculty in the budgetary process at Cal Poly until this year. As a consequence, the Academic Senate Budget Committee and the Academic Senate have operated in reaction to the budget, rather than as consultants to the preparation of the budget.

AS-92/BC
RESOLUTION ON
BUDGET PROCESS

WHEREAS, The established procedure for the involvement of the Cal Poly Academic Senate in the budget preparation process allows for limited participation of faculty; and

WHEREAS, Budget decisions directly affect the instructional program of Cal Poly; and

WHEREAS, The faculty has the primary responsibility for the instructional program; and

WHEREAS, The current funding does not appear likely to improve significantly in the foreseeable future; therefore, be it

RESOLVED: That the university shall create a Faculty Position Bank that shall consist of faculty positions which are to be available during contraction of budgets or expansion of budgets; and, be it further

RESOLVED: That during periods of budget contraction that require faculty reduction, those schools whose tenured and tenure-track faculty will not be affected by lay-off will "lend" to the Faculty Position Bank only positions held by part-time or full-time temporary appointees; and, be it further

RESOLVED: That a school faced with faculty reduction may apply to "borrow" from the Faculty Position Bank only after all faculty positions that are not tenured or tenure-track in the school have been released; and, be it further
RESOLVED: When faculty reduction is necessary within a school, said reduction should be implemented on a vertical basis; and, be it further

RESOLVED: When resources become available, those schools that have borrowed from the Faculty Position Bank must repay those positions before positions may be filled by the borrowing school; and, be it further

RESOLVED: That during periods of budget expansion that will permit an increase in faculty positions, the university will place these new positions into the Faculty Position Bank; and, be it further

RESOLVED: That for purposes of allocating new faculty positions, schools seeking new positions or the return of "borrowed" positions, will be required to submit Budget Change Proposals (BCP); and, be it further

RESOLVED: That the Academic Senate take an active role in the BCP evaluation process.

Proposed by the Academic Senate Budget Committee
Date: March 31, 1992
Adopted:

ACADEMIC SENATE
OF
CALIFORNIA POLYTECHNIC STATE UNIVERSITY
San Luis Obispo, California

AS- 92/9
RESOLUTION ON
GRADUATE STUDIES AT CAL POLY

WHEREAS, The CSU has just completed an exhaustive study of graduate studies and has reaffirmed the importance of its role on the 20-campus system; and

WHEREAS, That study has been endorsed and accepted by the CSU Trustees at its September 1991 meeting; and

WHEREAS, Cal Poly through its Strategic Planning Committee had made proposals that will affect the role of the university in relation to graduate studies; and

WHEREAS, The Graduate Studies Committee is seeking ways to improve graduate instruction and to enhance the environment for graduate students; therefore, be it

RESOLVED: That the Academic Senate accept this report and the review of the Long-Range Planning Committee and recommend them to the President for adoption as a document policy to guide the further development of graduate studies at Cal Poly.

Proposed by the Graduate Studies Committee
Date: October 3, 1992
Revised: April 14, 1992
GRADUATE STUDIES AT CAL POLY

a proposal initiated by
the Graduate Studies Committee

October 3, 1991

Mission and Goals

Graduate studies in The California State University system involves programs leading to the master's degree and in some instances, to joint doctoral degrees in collaboration with doctoral degree granting institutions in the state. The term "graduate work" also applies to postbaccalaureate work leading to a credential or certificate. CSU campuses offer the Master of Science and the Master of Arts degrees as well as applied degrees (both first and second professional degrees).

The goal of graduate education at Cal Poly is to offer students advanced study in professional and technical programs relevant to professional currency and scholarship, and consistent with the overall mission of the university. Generally, master's degree programs will satisfy this need, although in certain instances, joint doctoral programs will be the appropriate means.

The master's degree indicates that the holder has mastered a program of study in a particular field sufficiently to pursue creative projects in that specialty. The degree is normally awarded for the completion of a coherent program designed to assure the mastery of specified knowledge and skills, rather than for the accumulation of a certain number of random course credits after the baccalaureate.

Graduate education has many benefits. The concentration on advanced learning, characterized by problem-solving and the search for new knowledge, creates an intensified intellectual environment that benefits students, faculty and, thus, the entire campus community. It offers faculty members the opportunity to pursue intellectual inquiry and research in greater depth than at the baccalaureate level. The emphasis on applied educational programs and research directly benefits the State of California and its industry.
Background

Cal Poly offers master’s degree programs that are concentrated in a highly selected number of areas. In 1989, the Western Association of Schools and Colleges accreditation team noted in its report that since its last study, master’s programs have continued to develop and mature: "Several of the master’s programs have grown notably in size and quality during the past decade. . . ." One programmatic area—the MS degree in Counseling—offers only master’s level programs, but this is the exception "since graduate programs at Cal Poly operate in a campus culture that remains primarily undergraduate in orientation." The report goes on to note that as faculty qualifications continue to increase, "it is reasonable to expect that graduate programs will continue to be strengthened."

Some of the evidence the WASC team used is shown in the snapshot of enrollments given in the Appendix. This chart shows that the number of master’s candidates has increased over 35% in the last five years, and the number of master’s degrees offered has increased from fifteen to nineteen. In addition, qualifications of new faculty have improved and external grants for research have grown tenfold in the last decade to over $4,200,000, garnering the equivalent of over $5000 in research dollars for each graduate student on campus—twice the amount earned per student by our nearest competitor in the CSU. What is remarkable about this record of achievement is that it has been achieved under particularly trying circumstances.

A Cal State committee was formed three years ago to study the master’s degree on the then nineteen campuses. Its thorough report and implementation plan, which identifies a number of areas of serious concern, was approved by the Trustees at its September, 1991 meeting. The campus Graduate Studies Committee, responding to and building on this report, notes the following impediments to quality graduate programs:

an admissions office that finds it increasingly difficult to accommodate the special needs of graduate admissions in the crush of undergraduate applications

a graduate curriculum review process that does not include evaluation by a university-wide group committed to with the welfare of graduate programs

mode and level funding that uses 15 student credit units as the fulltime load for graduate students rather than a 12 or 9 student credit unit load.

an administrative environment that mingles graduate and undergraduate concerns routinely, even when their needs are distinct and clearly different
inadequate instructional workload credit for faculty members advising students on theses, especially second and third readers.

inadequate funding for library and support services crucial to advanced work.

no general fund support for graduate assistantships for research or teaching.

no recognition in the financial aid program for the unique needs of graduate students, or the crucial role that out-of-state tuition waivers play in building a program.

no identity for graduate students outside the department through such perquisites as the assignment of library carrels or the allotment of special recognition at graduation.

Enhancing graduate studies

This is an opportune time to examine the role of graduate studies at Cal Poly. Senate Bill No. 1570 (the Nielsen Bill), signed into law in the Fall of 1990, reaffirms the primary mission of The California State University as the provision of undergraduate and graduate instruction through the master's degree, with continued authorization of the joint doctoral degree. In addition, the university-wide Strategic Planning Committee, formed to assess the direction the campus should pursue, proposed in its working draft ("Cal Poly Strategic Planning Document," September, 1991) for consideration by the campus the following statement about graduate studies:

Cal Poly shall support and develop quality graduate programs that complement the mission of the university.

Objectives:

A. By 1995, Cal Poly shall ensure that 10 to 20 percent of each graduating class is in graduate programs. These include postbaccalaureate credential programs, masters degrees, and joint Ph.D. or professional doctorates. Masters degree programs that combine the strengths of two or more disciplines are encouraged.

B. By the end of the 1992-93 academic year, Cal Poly shall establish a strong supportive structure to assure that the university community provides necessary financial, instructional, library, and administrative resources for graduate programs.
Following on these initiatives, this proposal seeks to improve the environment for graduate level instruction by developing a campus-wide constituency that will serve as an advocate for graduate studies, by directing more attention and support to the development and review of graduate programs, and by providing an identity for graduate studies that consolidates the university-wide administrative support services for graduate programs into a single point of contact for students.

Graduate programs properly developed can become an important source of resources for instruction at both graduate and the undergraduate level. Advanced study in a discipline or profession provides students and faculty the opportunity to win external grants which in turn strengthen the program and offer resources for study, travel, and professional development of the kind we can no longer expect to receive from the state’s general fund.

Guiding principles

The following principles are proposed to guide the further development of graduate studies at Cal Poly:

1. Graduate instruction shall be pursued with a commitment proportionate to that which has been traditionally directed towards the undergraduate instructional program.

2. Graduate and undergraduate programs shall be handled individually in those areas where the needs are distinct such as admissions and new program development and review.

3. The primary responsibility for the conduct of the graduate program in matters not affecting the university at large shall remain at the level of the nearest instructional unit, which may be the school or department depending on the scope of the graduate program administered.

4. Graduate programs shall be guided by a campus-wide group of faculty members who are committed to graduate education. This group shall be an enabling rather than a prescriptive body.

5. Graduate programs shall be subject to periodic review, following campus-wide procedures which may involve off-campus reviewers in the discipline.

6. New and continuing graduate degree programs shall be justified in their own terms and merits as they relate to the campus’s instructional mission.
7. Graduate programs shall be allocated the resources necessary for their development and maintenance. These resources shall be clearly identified and shall provide an appropriate infrastructure of facilities (including library and information technologies) which enables the conduct of graduate work and research at an appropriate level and in an appropriate and timely fashion. Low enrollment graduate programs judged vital to the university’s mission may be given special consideration for support.

Recommendations and analysis/rationale

Three key elements are essential to the welfare of graduate studies: organization, resources, and identity. Organization consists of a university-wide advocacy group, the line organization, and departmental support. Resources include both physical and human ones. Identity consists of tangibles and intangibles which together create the profile of the program and give it recognition among its peers.

A. ORGANIZATION

RECOMMENDATION: That there be a campus-wide academic policy formulating body which has primary responsibility for graduate studies policy and curriculum.

Discussion: Currently those bodies which are key to setting policy for graduate studies—the curriculum committee in particular—do not have significant representation from faculty involved in graduate studies. This proposal addresses that issue by constituting a body comprised mainly of faculty members with a deep commitment to and involvement in graduate studies as the principal group to guide graduate studies on campus.

The group shall be an advocate for graduate instruction and will have responsibility for policy, for the strategic direction of graduate studies, for the level of excellence for new and established programs, and for coordinating admission and monitoring the progress of graduate students. On matters of policy, the actions of the group shall be sent to the executive committee of the Academic Senate for ratification within a prescribed time frame. On matters of curriculum and program, the actions of the group shall be sent to the curriculum committee of the Academic Senate for ratification within a prescribed time frame. Such actions shall be taken to the Vice President for Academic Affairs for consultation before becoming final.

The key person at the school or departmental level shall continue to be the graduate coordinator, who shall be responsible for the integrity and administration of his or her department’s graduate programs.
RECOMMENDATION: That the key university-wide services supportive of graduate studies be focused in a single office in the line administration.

Discussion: Currently important university-wide roles and services relating to graduate studies are spread among a number of disparate offices. The graduate studies office is responsible for policy, for the implementation of CSU standards, for monitoring student progress, and for thesis review. But graduate curriculum is coordinated out of another office, admissions from a third, records from a fourth, and so on. Thus, the campus-wide functions that affect graduate students directly are distributed among a number of offices, some of which may not always be sensitive to the needs and concerns of graduate students.

This recommendation would eliminate that deficiency by creating a central point of identity for graduate students, a graduate studies office where graduate students would go to handle their extra-departmental needs. The actual processing of the paperwork may not be performed physically in that office, but the graduate student would have the impression that this was so, and would thus have a coherent image of graduate studies supportive services outside the academic department. In so doing, the graduate studies office will present a coherent image to faculty and students alike.

B. RESOURCES

RECOMMENDATION: That adequate physical resources be made available for graduate studies.

Discussion: The CSU-wide study of graduate programs has urged that funding formulas be revised to provide greater support for the graduate programs in terms of facilities. Needs that must be addressed include dedicated study space for graduate students, e.g. library carrels, improved facilities for research, and better materials, including books, materials, supplies, and equipment.

RECOMMENDATION: That adequate human resources be made available to graduate studies, including appropriate time for faculty and staff development, thesis supervision, teaching, administrative duties, and research.

Discussion: It is widely recognized, as the CSU-wide study has noted, that the human resources necessary for sustaining quality graduate programs are not sufficiently recognized in the current CSU mode and level formulas. Critical areas of deficiency include: inappropriate levels for defining a full time student load for graduate programs (15 units); lack of appropriate workload definition for thesis advising; lack of support for
graduate teaching and research assistantships; and lack of support for merit-based fellowships and out-of-state tuition and fee waivers.

In adopting the graduate study report and recommendations in September of 1991, the Trustees recommended that when the state revenue situation turns around, workload for faculty with significant responsibility for graduate instruction be reduced. This can be accomplished, the report said, "by changing the definition of a full-time equivalent graduate student to 12 Student Credit Units instead of the current 15, but negotiating an increase in the weighting assigned to graduate course units, or by adjusting the normative ratios by which faculty positions are generated for graduate instruction."

In addition, the current mode and level formulas do not address the need for assigned time and clerical support for graduate coordinators. All these issues compound the difficulty of mounting graduate programs of excellence.

C. IDENTITY AND PEER REVIEW

RECOMMENDATION: That the university seek ways to enhance the identity of graduate studies.

Discussion: For many years Cal Poly has articulated its image as that of a preeminent undergraduate institution. This posture has led to distinction nation-wide as a university known for excellence in undergraduate instruction and for uniqueness in its careful understanding of and dedication to its role and mission. But the posture has also inadvertently created problems for the graduate studies program by creating, endorsing, and supporting many traditions that are focussed almost solely on the needs and ends of the undergraduate enterprise. As a result, graduate programs, despite their excellence, have not enjoyed the status accorded undergraduate instruction.

This document proposes that the university actively seek ways to continue to enhance the graduate program by looking for those actions and activities that will increase the awareness of graduate studies on the campus. A key in this endeavor will be the implementation of peer review and recognition, which will elevate the status of graduate studies among the faculty, and thus among the whole academic community.

Conclusion

The Graduate Studies Committee proposes this document for consideration as a guiding statement intended to enhance and strengthen graduate programs on campus. The proposal is part of the campus self evaluation begun with the WASC Accreditation Self Study and continued by the Strategic Planning Committee. It
seeks to sharpen the role and mission of graduate studies within the institution as Cal Poly continues to evolve from its early beginnings as a polytechnic high school to a fully mature comprehensive university. It proposes principles to guide the University as it takes its next steps in that process.
Aeronautical Engineering M.S. (1988)

Agriculture M.S. (1969)
Specializations:
- Agricultural Engineering Technology
- General Agriculture
- Food Science and Nutrition
- International Agricultural Development
- Soil Sciences

Architecture M.S. (1988)
Specializations:
- Professional Practice
- Environmental Design

Biological Sciences M.S. (1967)

Business Administration M.B.A. (1969)
Specializations:
- Business Administration
- Agribusiness

Chemistry M.S. (1971)

City and Regional Planning M.C.R.P. (1975)

Civil and Environmental Engineering M.S. (1988)

Computer Science M.S. (1973)

Counseling M.S. (1988)

Education M.A. (1948)
Specializations:
- Computer-Based Education
- Counseling and Guidance
- Curriculum and Instruction
- Educational Administration
- Reading
- Special Education

Electronic and Electrical Engineering M.S. (1988)
Specializations:
- Computer Engineering
- Electrical Engineering
- Electronic Engineering

Engineering M.S. (1988)
Specializations:
- Biochemical Engineering
- Industrial Engineering
- Mechanical Engineering
- Metallurgical and Materials Engineering

English M.A. (1968)
Emphases:
- Literature
- Linguistics
- Writing

Home Economics M.S. (1968)

Industrial and Technical Studies M.A. (1972)

Joint MBA/Engineering M.S. (1990)
Specialization:
- Engineering Management

Mathematics M.S. (1968)
Specializations:
- Applied Mathematics
- Mathematics Teaching

Physical Education M.S. (1968)
Emphases:
- Wellness Movement
- Human Movement and Sport
## GRADUATE ENROLLMENT

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AGRI (45)</td>
<td>64/26</td>
<td>70/29</td>
<td>55/30</td>
<td>50/22</td>
<td>69/23</td>
<td>62</td>
</tr>
<tr>
<td>ARCH (45)</td>
<td>29/12</td>
<td>13/5</td>
<td>27/19</td>
<td>19/9</td>
<td>21/5</td>
<td>18</td>
</tr>
<tr>
<td>CRP (68)</td>
<td>16/3</td>
<td>16/2</td>
<td>24/4</td>
<td>34/5</td>
<td>28/4</td>
<td>15</td>
</tr>
<tr>
<td>MBA (90)</td>
<td>97/36</td>
<td>114/41</td>
<td>123/55</td>
<td>141/61</td>
<td>128/64</td>
<td>118</td>
</tr>
<tr>
<td>AERO (45)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2/0</td>
<td>10/1</td>
<td>19</td>
</tr>
<tr>
<td>CE (45)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3/3</td>
<td>6/3</td>
<td>9</td>
</tr>
<tr>
<td>CSC (45)</td>
<td>50/13</td>
<td>55/22</td>
<td>40/13</td>
<td>54/24</td>
<td>57/11</td>
<td>71</td>
</tr>
<tr>
<td>ED (45-46)</td>
<td>123/29</td>
<td>132/47</td>
<td>175/35</td>
<td>172/74</td>
<td>225/70</td>
<td>235</td>
</tr>
<tr>
<td>EL/EE (45)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>7/10</td>
<td>21/7</td>
<td>28</td>
</tr>
<tr>
<td>ENGR (45)</td>
<td>37/15</td>
<td>36/28</td>
<td>47/19</td>
<td>27/10</td>
<td>22/10</td>
<td>23</td>
</tr>
<tr>
<td>ENM</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>ENGL (48)</td>
<td>21/5</td>
<td>17/0</td>
<td>24/6</td>
<td>27/3</td>
<td>41/8</td>
<td>51</td>
</tr>
<tr>
<td>CNSLG (90)</td>
<td>42/0</td>
<td>49/4</td>
<td>36/4</td>
<td>39/2</td>
<td>47/8</td>
<td>44</td>
</tr>
<tr>
<td>HE</td>
<td>3/3</td>
<td>2/1</td>
<td>1/0</td>
<td>1/1</td>
<td>7/5</td>
<td>8</td>
</tr>
<tr>
<td>IT (45)</td>
<td>12/4</td>
<td>10/5</td>
<td>7/4</td>
<td>11/4</td>
<td>7/5</td>
<td>8</td>
</tr>
<tr>
<td>PE (45)</td>
<td>27/4</td>
<td>13/8</td>
<td>14/10</td>
<td>29/7</td>
<td>30/9</td>
<td>29</td>
</tr>
<tr>
<td>BIO (45)</td>
<td>14/3</td>
<td>13/6</td>
<td>11/5</td>
<td>9/1</td>
<td>16/6</td>
<td>15</td>
</tr>
<tr>
<td>CHEM (45)</td>
<td>0/5</td>
<td>7/0</td>
<td>8/4</td>
<td>6/0</td>
<td>6/3</td>
<td>4</td>
</tr>
<tr>
<td>MATH (45)</td>
<td>10/1</td>
<td>16/1</td>
<td>22/7</td>
<td>16/3</td>
<td>12/4</td>
<td>22</td>
</tr>
<tr>
<td>TOTAL</td>
<td>561/159</td>
<td>567/201</td>
<td>623/215</td>
<td>636/242</td>
<td>746/241</td>
<td>770</td>
</tr>
</tbody>
</table>

Number in parentheses = amount of units required for degree  
Number before slash = Fall quarter census - master's candidates only  
Number after slash = Graduates for academic year (no data for 90-91 grads)
ACADEMIC SENATE
OF
CALIFORNIA POLYTECHNIC STATE UNIVERSITY
San Luis Obispo, California

AS- -92/
RESOLUTION ON
TIME FRAME TO OBTAIN DEGREE

WHEREAS, Title 5, section 40101, California Administrative Code authorizes individual campuses to "...prescribe that particular (degree) requirements be met within as few as seven years of the date of award of the degree."
and
Continuity, competence, coherence, and currency of course work is necessary to ensure a student's understanding of the degree materials; and
Many students attending Cal Poly presently require seven or more years of diligent effort to complete their degree requirements, and therefore a longer period of time than seven years should be permitted; and
This university has no stated policy regarding the length of time a student may take to obtain a degree, therefore;
RESOLVED: That beginning with Fall 1992, all baccalaureate degree requirements at this university will be completed within the ten (10) year period preceding award of the degree; and be it further
RESOLVED: That this ten-year time frame apply to all newly admitted students and former students returning; and be it further
RESOLVED: That all major and support courses required for the baccalaureate degree must be completed within the aforementioned ten-year period immediately preceding award of the degree; and be it further
RESOLVED: That courses completed prior to this ten-year period may be revalidated by a demonstration of competence or knowledge of the subject as may be prescribed by the department offering the course; and that students with unusual problems may file a Petition for Special Consideration.

Proposed by the Academic Senate
Instruction Committee
Date: April 21, 1992
ACADEMIC SENATE
of
CALIFORNIA POLYTECHNIC STATE UNIVERSITY
San Luis Obispo, California

Background Statement:

Title 5 curricular regulations specify the minimum and maximum number of units allowed in a degree program. A Bachelor of Arts degree (B.A.) must have 186 quarter units while the Bachelor of Science degree (B.S.) must have from a minimum of 186 units to a maximum of 198. An exemption allows Engineering disciplines to have a maximum of 210 units. In addition, Title 5 states that a minimum of 36 units are to be designated as major courses in the B.A. and 54 units in the B.S.

Currently there are 7 B.A. degree programs and 51 B.S. degree programs at Cal Poly. The B.S. programs range from a total of 187 units (B.S. in Biochemistry) to 210 (B.S. Architectural Engineering, Civil Engineering, Environmental Engineering, Mechanical Engineering). 48 degree programs have 198 or more units. According to Title 5 Architecture is a five-year program with a minimum of 68 units in the major and 248 units.

Current local regulations in the Campus Administrative Manual (CAM) direct undergraduate curriculum development by designating the courses in a program as major, support, general education and breadth (GE&B), and free electives. In addition CAM specifies that the major course category must not exceed 60 quarter units for a B.A. and 70 for a B.S. GEB units range from 72 to 79. While the support and free elective categories have no upper limits, the lower limit of record for free electives is 9 quarter units (13 degree programs have 0 free electives, exceptions granted in the past by our Academic Senate).

The introduction of new degree programs and the evolution of the university curricula have led to some interesting uses of the major and support course categories. Because of the upper limit to the major column, courses which are obviously part of the major such as Senior Project, in fact entire concentrations, can be found in the support course column. Confusion has arisen as to where required major or support courses which are GE&B should be placed. The consistency and integrity of these designations are at best doubtful and faculty members designing programs as well as those evaluating curriculum end up playing games with columns.

A major objective of this resolution is to encourage curricular flexibility and restructuring. Cal Poly has traditionally developed major curricula with lengthy sequences of prerequisite and support courses. Moreover, major programs tend to specify every course the student must take. As a result, when a course is unavailable or the student is "off cycle", the student and faculty advisor have no flexibility without recourse to cumbersome deviation petitions. This same inflexibility often precludes advisors from tailoring programs to the needs of individual students. Even small changes in a rigidly constructed program can lead to restructuring of the entire program and major revisions in catalog and advising displays.

This proposal encourages major programs to be structured with a required core of courses to be taken by all students in that program, followed by a block of restricted electives to be selected with the approval of the advisor. These restricted electives can be configured into a concentration or into a general group of advisor-approved courses which completes a broad, rather than specialized major. The Senior Project can be a natural extension of the specialized portion of the major - such as a concentration, if one is taken.

The model proposed allows departments to retain the program structure presently in place, but builds in flexibility. In addition, if the department wishes to change a course outside the core, it can easily be accommodated in the restricted electives and does not require a catalog change.
Resolution on Curriculum Review

The work which has resulted in this resolution has ensued over the past two years. At the end of Spring Quarter 1990, William Rife, then interim associate vice president for Academic Affairs, and C.A. Bailey, chair of the Academic Senate Curriculum Committee, spoke with the academic councils of all seven schools about the need for guideline revisions and a proposal to do so. In addition all department chairs were contacted at the end of Winter Quarter 1991 and asked to reconfigure their programs to the proposed revised guidelines. The Academic Senate Curriculum Committee has had this topic for discussion on its agenda over the past two years.

With this background the Academic Senate Curriculum Committee would like to submit the following resolution to the full Senate for its consideration:

AS-92/1

RESOLUTION ON CURRICULUM

WHEREAS there are few definitions imposed upon curriculum by legislative or chancellor's office mandate; and

WHEREAS the local Campus Administrative Manual (CAM) is the source of description for the categories of courses in a baccalaureate program, namely Major, Support, General Education and Breadth, and Free Electives; and

WHEREAS CAM also specifies the maximum number of units in the major course category; and

WHEREAS current use of these categories and unit specifications has become mechanical rather than pedagogical resulting in a loss of meaning to these designations; and

WHEREAS university curricula have matured and evolved since the CAM regulations were first written; therefore, be it

RESOLVED that the Academic Senate move to reinstate integrity to the curriculum structure; and

be it further

RESOLVED that the CAM regulations more accurately reflect and direct current and future curriculum on campus; and

be it further

RESOLVED that CAM be revised as follows:

410 UNDERGRADUATE PROGRAMS

411 Guidelines for Majors, Options, Concentrations, and Minors

A. Recognized Categories of Curricular Concentrations

(Note: For the purpose of computing grade point average at graduation, "major" is defined as follows in 1. and 2. below.)

1. Major—(B.S.)

(a) For the B.S. degree the major shall consist of no less than 54 or more than 70 quarter units of courses required for graduation in each curriculum.

2. Major—(B.A.)

(a) For the B.A. degree the major shall consist of no less than 54 or more than 70 quarter units of courses required for graduation in each curriculum.

(b) Of the units in courses designated as major, at least 27 must be in 300 or 400-series courses.
Resolution on Curriculum Review

*(2) Of the units in courses designated as major, at least six must be required in the freshman and at least nine in the sophomore year. This statement has been retained and appears below.

(b) The courses in the major, designated as "M" courses, must be exclusive of those used to satisfy the general education requirement. The "M" courses generally are those with the major departmental prefix although others may be included.

2. Major (B.A.)

(a) For the B.A. Degree the major shall consist of no less than 48 or more than 60 quarter units of courses required for graduation in each curriculum.

(1) Of the units in courses designated as major, at least 24 must be in the 300 or 400 series courses.

(2) Of the total of 186 quarter units required for the degree at least 60 must be in 300 or 400 series courses.

(3) Of the units in courses designated as major, at least six must be required in the freshman year and at least six in the sophomore year.

(b) The courses in the major, designated as "M" courses, must be exclusive of those used to satisfy the general education requirement. The "M" courses generally are those with the major departmental prefix although others may be included.

A. Course Categories

Curriculum course categories shall be Major Courses, Support Courses, General Education & Breadth Courses, and Free Elective Courses. Each category shall be subject to the following guidelines.

1. Major Courses

(a) Definitions

(1) Major courses shall be those having the prefix of the major program.

(2) Courses from any other prefix or discipline may be, but need not be, designated as a major course.

(3) For the purpose of computing grade point average in the major at graduation, specific major courses may be designated to the Evaluations Office by the department offering the program. Unless otherwise designated, all courses in the major column will be counted towards the major G.P.A.

(b) Units

(1) In accordance with Title 5, there shall be a minimum of 54 quarter units designated as major courses or course areas for the B.S. degree and a minimum of 36 quarter units for the B.A. degree.
(2) Of the units in courses or course areas designated as major, at least 27 must be in 300 or 400 series courses for the B.S. and at least 18 units for the B.A.

(3) Of the units in courses or course areas designated as major, at least 15 units should be designated in lower division courses.

(4) For students pursuing the same degree objective at least 50% of their major courses or course areas should be the same.

(5) Courses in the major which fulfill General Education & Breadth requirements should be listed in the Major Course category with a reference (as an asterisk) to the GE&B area.

B. Guidelines Relating to Concentrations

(c) Concentrations

(1) Definition

A concentration is a block of at least five designated major courses (E.O 283) or course areas to be chosen with the approval of the student's adviser comprising from 18 to 29 quarter units chosen to provide a special essentially different capabilities emphasis for the student. No single course should appear in every concentration; such courses should be included in the major. The courses for a concentration shall appear in the major course column.

(2) Units

At least 50% of the units in a concentration shall be the same courses or course areas for all students taking that concentration.

3. Support Courses

(a) Definition

A support course is any specified course outside of the home department. Courses with the home department prefix shall not appear in the support course category.

Support courses which fulfill General Education & Breadth requirements shall appear in the Support Course category with a reference (as an asterisk) to the appropriate GE&B area.

4. General Education & Breadth

Those areas and courses designated as fulfilling General Education & Breadth requirements as defined by Title 5 and Executive Order 338 shall appear in the category of General Education & Breadth Courses. Areas which can be met by major and support courses shall be designated by a reference (as an asterisk) and the comment - "This requirement is met by taking the major (support) courses marked with an asterisk (*)."

5. Free Electives

Free elective means a course chosen solely by the student with no curricular restrictions. There shall be a minimum of 9 units of free electives in each curriculum
Resolution on Curriculum Review

unless the program is recommended for an exemption by the Academic Senate and the exemption is approved by the President of the university.

6. General

At least 60 units of the total bachelor's degree units, for both the B.A. and B.S., shall be at the 300-400 level.

Proposed by:

The Curriculum Committee
on April 14, 1992
State of California

Cal Poly State University
San Luis Obispo, CA 93407

M.F.N.O.R.A.M.E.

Date: May 5, 1992

To: Academic Senate

From: BPO Caucus

Sub: Budget concerns, 1992-93

We must all agree that this University exists for the purpose of teaching and graduating undergraduate students. To this end, the faculty are equal in importance to the students: One cannot function without the other.

Therefore, everything, every activity, that takes place on, or involves this campus, directly or indirectly, has an impact on the students and faculty. These conditions must not take a subordinate position to the academic affairs at Cal Poly.

Students and faculty have a right to expect a safe and functional environment in which to conduct the academic requirements of teaching. This includes expectations of a reasonably high social, employment security, and leadership. This latter factor includes leadership from Central Administration as well as from the Academic Senate, representing approximately half the employees on this campus. As faculty we have an option: We can do nothing and depend on the Administration for guidance and direction. When this happens, the faculty (represented by the Senate) can do little but accept or reject. The proper option is for the Senate to take the initiative when dealing with current or future problems. We know that the Senate really is an advisory body to the Administration. Many times we have heard the President and the Senior Vice President say of their desire for consultation and input from the faculty. Our failure to provide consultation and input abrogates our traditional role, a role that apparently the Administration would like to maintain.

While we can appreciate the problems the Administration is facing regarding the current budgetary problems, we are not satisfied that the processes and procedures that are being followed are in keeping with the above philosophy of governance and consultation as espoused. It is frankly an embarrassment when one reads that RecAdmin is going to be cut, then to read the very next day that to do so would be in violation of the labor contract. The decisions to vertically cut Home Economics and Engineering Technology may or may not be in the best interests of this University. However as political pressure mounts, we see a wavering of position from "the Hill". Should these plans for budget reductions be made horizontally or vertically? Why were faculty not consulted before these decisions were made (decisions
That might very well have to be rescinded or modified, as has already happened in the case of Resident.\textendash The \textit{unofficial} being utilized are not clear, have never been spelled out, and clearly are not intended to include those most affected, the faculty.

One issue keeps coming up: "Should cuts be made vertically or horizontally?" We do not believe the problem can be reduced to such simplistic terms. Obviously, those not affected support vertical cuts, while the opposite is true for those in programs identified for phase-out. It is more important that we understand the true issues and bind together. Last year the Program Review Task Forces used the term "bias cuts" to define proposals that were a combination of vertical and horizontal. This still does not address the fact that consultation has not really taken place. The faculty have not had an opportunity to provide input to these decisions: There has been no consultation with faculty, and hence the devastation to student and faculty morale, as manifested in the rounds of protests in the past few days.

The Administration must plan for worst case conditions. The regulations and the Contract require certain steps to be taken in the event of faculty reductions. These plans must include faculty. This has not taken place up to this point.

While the following issues probably will not make a significant difference in the budget problems that must be addressed, individually and collectively they impact the budget and significantly affect faculty and student morale.

1. **The Athletic Issue**: The move to Division I seems inappropriate, particularly when we probably will have no one to compete against! Over the recent years, the role of athletics on this campus has continued to diminish to the point where we must seriously consider whether any athletic activity outside the campus can be justified.

2. **New Faculty**: At this very moment while the Administration is targeting long-time tenured faculty for layoff, its departments are hiring new faculty! The recently approved Mass and Philosophy Degree programs are interviewing and hiring. Alling of these potential layoffs! It should also be noted that both the Senior Vice President and the Dean of Liberal Arts publicly announced that added resources would not be needed to support these two programs. Have these promises been kept?

3. **New/added Staff**: The Vice President for Student Affairs continues to enlarge her staff. Other non-academic offices are also being hired as we speak of tenured terminations. The Administration should place an immediate freeze on any and all new and/or replacement hires, both faculty and staff. Many chores now being accomplished by full-time staff could be accomplished with student hires. This would help the financial
Pay raises: On January 1, 1991, almost every administrator on campus received a pay raise, some amounting to many thousands of dollars. The total of all of these raises could significantly distort the budget labor: O & E ratio. Individually, these raises might not be significant, but to those of us who have not seen a raise, and will not for the foreseeable future, this is a blatant disregard for the moxie of faculty.

Equity: We have been told by the Administration that we should consider "important" vs. "not important" programs. This is a subjective and judgmental statement, not based on any information that has been presented. The Administration, working through the Deans, has already decided a program priority without consultation with the Senate. Such actions have created, among some, a caste system on this campus: The final matter regarding equity deals with the fact that two of the programs (or parts thereof) previously identified for elimination contain perhaps the highest percentage of women faculty of any programs on campus. While we work hard to provide an improved balance of women and minorities at Cal Poly, the Administration appears to be completely insensitive to this issue.

Other: We are told that the Vice President of Academic Affairs has no control of "non-academic" activities on campus. The fact is, these "non-academic" programs consume funds that could be redirected into the academic side of this campus. If the VP has no control over these matters, then the responsibility must rest with the one who has the final say in all matters on this campus. The President must make it clear that he will do whatever is necessary to protect the integrity of Cal Poly's programs. I see little evidence that this is occurring. We need our buildings and other facilities. Do we really need a thousand staff supporting a thousand (now considerably less) faculty? How many faculty positions are being held back by the Administration to be used in the event of emergency? How many faculty positions are occupied by those performing administrative duties, and therefore not in the classroom?

Finally, these are difficult times; and require difficult decisions. We are at this point, deciding that non-human items are more important than our faculty. We are told that even as the budget remains the same as last year, we should lay off staff and faculty in order to maintain some ratio of labor and materials (faculty to O & E). This is an historical moment in our history: Terminating senior faculty to buy paper and other supplies. We agree that these items are important, but are they more important than our fellow teachers?

I know there are a number of other concerns that must be voiced regarding the budget, and how we might deal with them. I hope this memo is accepted as a point of departure as we discuss the real issues.
Resolution

To: Academic Senate
    President Baker
    All Academic Departments

From: Mathematics Department

Date: 5/5/92

Subject: Further cuts and athletics

Whereas it is now known that the State shortfall is larger than originally projected (10 billion dollars),

Whereas additional cuts are expected,

Whereas Cal Poly is an academic institution,

Be it resolved that additional reductions in programs, due to lack of funds, begin with reduction or elimination of the athletics program,

and be it further resolved that each intercollegiate sport be redesignated as a club and have the same support as any other ASI sponsored club,

And be it further resolved that no academic program be reduced beyond the current levels, due to lack of funds, until all possible savings have been achieved by elimination of support of the athletic program.
POLICY AND REVIEW PROCEDURES FOR DISCONTINUANCE OF AN ACADEMIC PROGRAM

Attached is a copy of the Policy and Review Procedures for Discontinuance of an Academic Program. This policy was developed in response to a directive from the Chancellor's Office that each campus have written campus procedures approved by the Chancellor. The policy was prepared by Academic Affairs Staff in consultation with the Academic Council and the Academic Senate.

I hereby approve the attached statement, effective immediately.

[Signature]
Warren J. Baker
President

November 13, 1981

Note: This Administrative Bulletin should be filed in the Appendix of the Campus Administrative Manual and an entry made in the CAM Index and the title added to the Administrative Bulletins title page.
POLICY AND REVIEW PROCEDURES
FOR DISCONTINUANCE OF AN ACADEMIC PROGRAM

Many CSU campuses, including Cal Poly, San Luis Obispo, may find it necessary to reduce faculty, support, and administrative positions due to enrollment declines or financial support reductions. When financial support is reduced, the discontinuance or curtailment of programs or departments sometimes emerges as the alternative which does the least harm to the quality of remaining programs. Program and department discontinuance or curtailment are valid ways of responding to reductions in resources; however, program discontinuance can and must be accomplished with minimal impact. Program discontinuance decisions must be made in a reasoned way which will minimize damage to institutions and to the majority of their programs.

The following procedures have been developed in response to EP&R 79-10, January 26, 1979, Chancellor Dumke to Presidents, "Interim Policy for the Discontinuance of Academic Programs," and EP&R 80-45, June 12, 1980, Vice Chancellor Sherriffs to Presidents, "Clarification of Interim Policy for Discontinuance of Academic Programs." These documents outline general procedures for program discontinuance and request that campuses submit local discontinuance procedures.

I. PROCEDURES

A. A proposal to discontinue an academic program will ordinarily be the result of regular program review but a request for special review may be initiated at any time by a majority vote of the faculty or department head of the affected department or school dean or the Vice President for Academic Affairs.

B. If the request for review is approved by the Vice President for Academic Affairs, a Discontinuance Review Committee will be appointed by the Vice President for Academic Affairs to conduct a review in accordance with the procedures outlined in this document and, as required by the CSU Chancellor's Office, make recommendations to the Vice President for Academic Affairs.

C. The review committee will consist of:

1. A representative from the Academic Program office
2. Dean or Associate Dean of affected school
3. Department Head of affected department
4. Two faculty representatives nominated by the Chair of the Academic Senate, one from the affected department and one from outside the affected school
5. One student from the affected department nominated by the ASI President
6. Associate Vice President for Academic Programs (nonvoting)
D. The completed review will be submitted to the Vice President for Academic Affairs, the Academic Deans Council and the Academic Senate for review and recommendation.

E. The President will consider the recommendations of the Vice President for Academic Affairs, Academic Deans Council, and Academic Senate, and make recommendations to the Chancellor's Office.

II. CONSIDERATIONS IN PROGRAM DISCONTINUANCE REVIEW

Considerations for program discontinuance will be similar to those for initiation of new programs:

A. What will be the impact of discontinuance in terms of:
   a. Student demand
   b. Statewide or regional human resources needs
   c. Other compelling needs

B. Is the program the most effective way of meeting the identified needs?

C. Do programs exist at Cal Poly or on other campuses which could handle the enrollment of students in this program?

D. How will enrollment shifts affect other instructional areas at Cal Poly?

E. If the program is one which prepares students for a specific occupation or profession, are there current surpluses in California of individuals so trained?

F. If the program is one which contributes to the general education and breadth of the student, will other instructional areas be able to compensate for the discontinued program?

G. Effects of discontinuance on facilities:
   1. How will discontinuance of the program affect facilities use patterns?
   2. How will discontinuance of the program affect facilities planning?

H. Financial effects of discontinuance:
   1. How will discontinuance of the program change the current financial situation?
   2. How will discontinuance affect future allocations to the campus?
   3. What are the likely dollar savings of program discontinuance?

I. Effects on faculty, staff, and students:
   1. How will discontinuance of a program affect its faculty, staff, and students?
   2. If the program is discontinued, what will be done to assist these people professionally and in humanitarian terms?
III. INFORMATION FOR PROGRAM DISCONTINUANCE REVIEW

The information considered during the evaluation of an academic program for discontinuance will include but will not be limited to:

A. The most recently completed Review of Existing Degree Programs with current statistical update.

B. The most recent accreditation report, if a program is accredited or approved.

C. If not contained in A or B:
   1. FTEF required each quarter for the past three years
   2. Special resources and facilities required
   3. Number of students expected to graduate in each of the next three years.

D. Conclusions and recommendations of the project team on Academic Programs, contained in the 1980 edition of Academic Program and Resource Planning in the California State University and Colleges, p. 28.
GRADUATE STUDIES AT CAL POLY

a proposal initiated by

the Graduate Studies Committee

April 24, 1992

Mission and goals

Graduate studies in The California State University system involves programs leading to the master's degree and in some instances, to joint doctoral degrees in collaboration with doctoral degree granting institutions in the state. The term "graduate work" also applies to postbaccalaureate work leading to a credential or certificate. CSU campuses offer the Master of Science and the Master of Arts degrees as well as applied degrees (both first and second professional degrees).

The goal of graduate education at Cal Poly is to offer students advanced study in professional and technical programs relevant to professional currency and scholarship, and consistent with the overall mission of the university. Generally, master's degree programs will satisfy this need, although in certain instances, joint doctoral programs will be the appropriate means.

The master's degree indicates that the holder has mastered a program of study in a particular field sufficiently to pursue creative projects in that specialty. The degree is normally awarded for the completion of a coherent program designed to assure the mastery of specified knowledge and skills, rather than for the accumulation of a certain number of random course credits after the baccalaureate.

Graduate education has many benefits. The concentration on advanced learning, characterized by problem-solving and the search for new knowledge, creates an intensified intellectual environment that benefits students, faculty and, thus, the entire campus community. It offers faculty members the opportunity to pursue intellectual inquiry and research in greater depth than at the baccalaureate level. The emphasis on applied educational programs and research directly benefits the State of California and its industry.
Background

Cal Poly offers master's degree programs that are concentrated in a highly selected number of areas. In 1989, the Western Association of Schools and Colleges accreditation team noted in its report that since its last study, master's programs have continued to develop and mature: "Several of the master's programs have grown notably in size and quality during the past decade. . . ." One programmatic area—the MS degree in Counseling—offers only master's level programs, but this is the exception "since graduate programs at Cal Poly operate in a campus culture that remains primarily undergraduate in orientation." The report goes on to note that as faculty qualifications continue to increase, "it is reasonable to expect that graduate programs will continue to be strengthened."

Some of the evidence the WASC team used is shown in the snapshot of enrollments given in the Appendix A. This chart shows that the number of master's candidates has increased over 35% almost 50% in the last six years, and the number of master's degrees offered has increased from fifteen to nineteen. In addition, qualifications of new faculty have improved and external grants for research have grown tenfold in the last decade to over $4,200,000,000, garnering the equivalent of over $5000 $7,000 in research dollars for each graduate student on campus—twice the amount earned per student by our nearest competitor in the CSU. What is remarkable about this record of achievement is that it has been achieved under particularly trying circumstances.

A Cal State committee was formed three years ago to study the master's degree on the then nineteen campuses. Its thorough report and implementation plan, which identifies a number of areas of serious concern, was approved recommended by the Trustees at its September, 1991, meeting to the Chancellor's Office for implementation as resources permit. The definition of quality (see Appendix B) was adopted by the Trustees to guide graduate studies on all campuses. The campus Graduate Studies Committee, responding to and building on this report, notes the following impediments to quality graduate programs:

an admissions office that finds it increasingly difficult to accommodate the special needs of graduate admissions in the crush of undergraduate applications

a graduate curriculum review process that does not include evaluation by a university-wide group committed to the welfare of graduate programs

mode and level funding that uses 15 student credit units as the fulltime load for graduate students rather than a 12 or 9 student credit unit load.
an administrative environment that mingles graduate and undergraduate concerns routinely, even when their needs are distinct and clearly different

inadequate instructional workload credit for faculty members advising students on theses, especially second and third readers

inadequate funding for library and support services crucial to advanced work

no general fund support for graduate assistantships for research or teaching

no recognition in the financial aid program for the unique needs of graduate students, or the crucial role that out-of-state tuition waivers play in building a program

no identity for graduate students outside the department through such perquisites as the assignment of library carrels or the allotment of special recognition at graduation

Enhancing graduate studies

This is an opportune time to examine the role of graduate studies at Cal Poly. Senate Bill No. 1570 (the Nielsen Bill), signed into law in the Fall of 1990, reaffirms the primary mission of The California State University as the provision of undergraduate and graduate instruction through the master's degree, with continued authorization of the joint doctoral degree.

In addition, the university-wide Strategic Planning Committee, formed to assess the direction the campus should pursue, proposed in its working draft ("Cal Poly Strategic Planning Document," September, 1991) the following statement for consideration by the campus goal: "Cal Poly shall support and develop quality graduate programs that complement the mission of the university."

Objectives:

A. By 1995, Cal Poly shall ensure that 10 to 20 percent of each graduating class is in graduate programs. These include postbacalaureate credential programs, masters degrees, and joint Ph.D. or professional doctorates. Masters-degree programs that combine the strengths of two or more disciplines are encouraged.

B. By the end of the 1992-93 academic year, Cal Poly shall establish a strong supportive structure to assure that the university community provides necessary financial,
instructional, library, and administrative resources for graduate programs.

What form the implementation plan will take remains to be seen, but the general direction seems clear. Following on these initiatives, this proposal seeks to improve the environment for graduate level instruction by developing a campus-wide constituency that will serve as an advocate for graduate studies, by directing more attention and support to the development and review of graduate programs, and by providing an identity for graduate studies that consolidates the university-wide administrative support services for graduate programs into a single point of contact for students.

Graduate programs properly developed can become an important source of resources for instruction at both graduate and the undergraduate level. Advanced study in a discipline or profession provides students and faculty the opportunity to win external grants which in turn strengthen the program and offer resources for study, travel, and professional development of the kind we can no longer expect to receive from the state's general fund.

Guiding principles

The following principles are proposed to guide the further development of graduate studies at Cal Poly:

1. Graduate instruction shall be pursued with the same commitment proportionate to that which has been traditionally directed towards the undergraduate instructional program.

2. Graduate and undergraduate programs shall be handled individually in those areas where the needs are distinct such as admissions and new program development and review.

3. The primary responsibility for the conduct of the graduate program in matters not affecting the university at large shall remain with faculty at the level of the nearest instructional unit, which may be the school or department depending on the scope of the graduate program administered.

4. Graduate programs shall be guided by the Academic Senate through a campus-wide group council of faculty members who are committed to graduate education. This group council shall be an enabling rather than a prescriptive body.

5. Graduate programs shall be subject to periodic review, following campus-wide procedures which may involve off-campus reviewers in the discipline.
6. New and continuing graduate degree programs shall be justified in their own terms and merits as they relate to the campus's instructional mission.

7. Graduate programs shall be administered to ensure that resource necessary for their development and maintenance are available. These resources shall be clearly identified and shall provide an appropriate infrastructure of facilities (including library and information technologies) which enables the conduct of graduate work and research at an appropriate level and in an appropriate and timely fashion consistent with the university's mission. Faculty will be provided administrative support for obtaining grants and endowments to develop programs. Low enrollment graduate programs judged vital to the university's mission may be given special consideration for support.

Recommendations and analysis/rationale

Three key elements are essential to the welfare of graduate studies: organization, resources, and identity. Organization consists of a university-wide advocacy group, the line organization, and departmental support. Resources include both physical and human ones. Identity consists of tangibles and intangibles which together create the profile of the program and give it recognition among its peers.

A. ORGANIZATION

RECOMMENDATION: That there be a campus-wide academic policy formulating body which has primary responsibility for graduate studies policy and curriculum.

Discussion: Currently those bodies which are key to setting policy for graduate studies—the curriculum committee in particular—do not have significant representation from faculty involved in graduate studies. This proposal addresses that issue by constituting a body proposing the establishment of a council comprising mainly of faculty members with a deep commitment to and involvement in graduate studies as the principal group to guide graduate studies on campus.

The group shall be an advocate for graduate instruction and will have responsibility for policy, for the strategic direction of graduate studies, for the level of excellence for new and established programs, and for coordinating admission and monitoring the progress of graduate students. On matters of policy, the actions of the group shall be sent to the executive committee of the Academic Senate for ratification within a prescribed time frame. On matters of curriculum and
program, the actions of the group council shall be sent to the
curriculum committee of the Academic Senate for ratification
within a prescribed time frame. Such actions shall be taken to
the Vice President for Academic Affairs for consultation before
becoming final.

The key person at the school or departmental level shall continue
to be the graduate coordinator, who shall be responsible for the
integrity and administration of his or her department's graduate
programs.

RECOMMENDATION: That the key university-wide services
supportive of graduate studies be focused in a single
office in the line administration.

Discussion: Currently important university-wide roles and
services relating to graduate studies are spread among a number
of disparate offices. The graduate studies office is responsible
for policy, for the implementation of CSU standards, for
monitoring student progress, and for thesis review. But graduate
curriculum is coordinated out of another office, admissions from
a third, records from a fourth, and so on. Thus, the campus-wide
functions that affect graduate students directly are distributed
among a number of offices, some of which may not always be
sensitive to the needs and concerns of graduate students.

This recommendation would eliminate that deficiency by creating
a central point of identity for graduate students, a graduate
studies office where graduate students would go to handle their
extra-departmental needs. The actual processing of the paperwork
may not be performed physically in that office. Indeed, it may
still be performed by the records office, say, or the admissions
office. But the graduate student would have the impression that
this was so, and would thus have a coherent image of graduate
studies supportive services outside the academic department a
single office met all his or her needs. In so doing, the
graduate studies office will present a coherent image to faculty
and students alike.

B. RESOURCES

RECOMMENDATION: That adequate physical resources be
made available for graduate studies from the general
fund, grants, and other private sources.

Discussion: The CSU-wide study of graduate programs has urged
that funding formulas be revised to provide greater support for
the graduate programs in terms of facilities. Needs that must be
addressed include dedicated study space for graduate students,
e.g. library carrels, improved facilities for research, and
better materials, including books, materials, supplies, and
equipment.
RECOMMENDATION: That adequate human resources be made available to graduate studies, including appropriate time for faculty and staff development, thesis supervision, teaching, administrative duties, and research.

Discussion: It is widely recognized, as the CSU-wide study has noted, that the human resources necessary for sustaining quality graduate programs are not sufficiently recognized in the current CSU mode and level formulas. Critical areas of deficiency included: inappropriate levels for defining a full time student load for graduate programs (15 units); lack of appropriate workload definition for thesis advising; lack of support for graduate teaching and research assistantships; and lack of support for merit-based fellowships and out-of-state tuition and fee waivers. In addition, the current mode and level formulas do not address the need for assigned time and clerical support for graduate coordinators. All these issues compound the difficulty of mounting graduate programs of excellence.

In adopting the graduate study report and recommendations in September of 1991, the Trustees recommended that when the state revenue situation turns around, workload for faculty with significant responsibility for graduate instruction be reduced. This can be accomplished, the report said, "by changing the definition of a full-time equivalent graduate student to 12 Student Credit Units instead of the current 15, but by negotiating an increase in the weighting assigned to graduate course units, or by adjusting the normative ratios by which faculty positions are generated for graduate instruction."

The campus should not wait for what might not come, however. Rather, it should proactively seek to improve the resources for graduate classes by such actions as (a) vigorously recruiting students so that all graduate level courses are filled with qualified students, and (b) pursuing an active sponsored grants program to provide further support for graduate students and to supplement departmental resources significantly.

C. IDENTITY AND PEER REVIEW

RECOMMENDATION: That the university seek ways to enhance the identity of graduate studies.

Discussion: For many years Cal Poly has articulated its image as that of a preeminent undergraduate institution. This posture has led to distinction nation-wide as a university known for excellence in undergraduate instruction and for uniqueness in its careful understanding of and dedication to its role and mission. But the posture has also inadvertently created problems for the graduate studies program by creating, endorsing, and supporting
many traditions that are focused almost solely on the needs and ends of the undergraduate enterprise. As a result, graduate programs, despite their excellence, have not enjoyed the status accorded undergraduate instruction.

This document proposes that the university actively seek ways to continue to enhance the graduate program by looking for those actions and activities that will increase the awareness of graduate studies on the campus. A key in this endeavor will be the implementation of peer review and recognition, which will elevate the status of graduate studies among the faculty, and thus among the whole academic community.

Conclusion

The Graduate Studies Committee proposes this document for consideration as a guiding statement intended to enhance and strengthen graduate programs on campus. The proposal is part of the campus self evaluation begun with the WASC Accreditation Self Study and continued by the Strategic Planning Committee. It seeks to sharpen the role and mission of graduate studies within the institution as Cal Poly continues to evolve from its early beginnings as a polytechnic high school to a fully mature comprehensive university. It proposes principles to guide the University as it takes its next steps in that process.
Aeronautical Engineering M.S. (1988)
Agriculture M.S. (1969)
Specializations:
  Agricultural Engineering Technology
  General Agriculture
  Food Science and Nutrition
  International Agricultural Development
  Soil Sciences
Architecture M.S. (1988)
Specializations:
  Professional Practice
  Environmental Design
Biological Sciences M.S. (1967)
Business Administration M.B.A. (1969)
Specializations:
  Business Administration
  Agribusiness
Chemistry M.S. (1971)
City and Regional Planning M.C.R.P. (1975)
Civil and Environmental Engineering M.S. (1988)
Computer Science M.S. (1973)
Counseling M.S. (1988)
Education M.A. (1948)
Specializations:
  Computer-Based Education
  Counseling and Guidance
  Curriculum and Instruction
  Educational Administration
  Reading
  Special Education
Electronic and Electrical Engineering M.S. (1988)
Specializations:
  Computer Engineering
  Electrical Engineering
  Electronic Engineering
Engineering M.S. (1988)
Specializations:
  Biochemical Engineering
  Industrial Engineering
  Mechanical Engineering
  Metallurgical and Materials Engineering
English M.A. (1968)
Emphases:
  Literature
  Linguistics
  Writing
Home Economics M.S. (1968)
Industrial and Technical Studies M.A. (1972)
Joint MBA/Engineering M.S. (1990)
Specialization:
  Engineering Management
Mathematics M.S. (1968)
Specializations:
  Applied Mathematics
  Mathematics Teaching
Physical Education M.S. (1968)
Emphases:
  Wellness Movement
  Human Movement and Sport
## GRADUATE ENROLLMENT

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AGRI (45)</td>
<td>70/29</td>
<td>55/30</td>
<td>58/22</td>
<td>69/23</td>
<td>62/30</td>
<td>68</td>
</tr>
<tr>
<td>ARCH (45)</td>
<td>13/5</td>
<td>27/19</td>
<td>19/9</td>
<td>21/5</td>
<td>18/7</td>
<td>27</td>
</tr>
<tr>
<td>CRP (68)</td>
<td>18/2</td>
<td>24/4</td>
<td>34/5</td>
<td>28/4</td>
<td>15/5</td>
<td>31</td>
</tr>
<tr>
<td>MBA (96)</td>
<td>114/41</td>
<td>123/55</td>
<td>141/61</td>
<td>128/64</td>
<td>118/61</td>
<td>112</td>
</tr>
<tr>
<td>AERO (45)</td>
<td>--</td>
<td>--</td>
<td>2/0</td>
<td>10/1</td>
<td>19/3</td>
<td>26</td>
</tr>
<tr>
<td>CE (45)</td>
<td>--</td>
<td>--</td>
<td>3/3</td>
<td>6/3</td>
<td>9/2</td>
<td>10</td>
</tr>
<tr>
<td>CSC (45)</td>
<td>55/22</td>
<td>48/13</td>
<td>54/24</td>
<td>57/11</td>
<td>71/9</td>
<td>79</td>
</tr>
<tr>
<td>ED (45-48)</td>
<td>132/47</td>
<td>175/35</td>
<td>172/74</td>
<td>225/70</td>
<td>235/78</td>
<td>214</td>
</tr>
<tr>
<td>EL/EE (45)</td>
<td>--</td>
<td>--</td>
<td>7/10</td>
<td>21/7</td>
<td>28/19</td>
<td>19</td>
</tr>
<tr>
<td>ENGR (45)</td>
<td>36/28</td>
<td>47/19</td>
<td>27/10</td>
<td>22/10</td>
<td>23/9</td>
<td>25</td>
</tr>
<tr>
<td>ENM</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>7/3</td>
<td>17</td>
</tr>
<tr>
<td>ENGL (48)</td>
<td>17/0</td>
<td>24/6</td>
<td>27/3</td>
<td>41/8</td>
<td>51/12</td>
<td>60</td>
</tr>
<tr>
<td>CNSLG (90)</td>
<td>49/4</td>
<td>36/4</td>
<td>39/2</td>
<td>47/8</td>
<td>44/8</td>
<td>63</td>
</tr>
<tr>
<td>HE</td>
<td>2/1</td>
<td>1/0</td>
<td>1/4</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>IT (45)</td>
<td>10/5</td>
<td>7/4</td>
<td>11/4</td>
<td>7/5</td>
<td>8/3</td>
<td>9</td>
</tr>
<tr>
<td>PE (45)</td>
<td>13/8</td>
<td>14/10</td>
<td>29/7</td>
<td>30/9</td>
<td>29/7</td>
<td>39</td>
</tr>
<tr>
<td>BIO (45)</td>
<td>13/8</td>
<td>11/5</td>
<td>9/1</td>
<td>16/6</td>
<td>15/0</td>
<td>21</td>
</tr>
<tr>
<td>CHEM (45)</td>
<td>7/0</td>
<td>8/4</td>
<td>6/0</td>
<td>6/3</td>
<td>4/3</td>
<td>4</td>
</tr>
<tr>
<td>MATH (45)</td>
<td>18/1</td>
<td>23/7</td>
<td>16/3</td>
<td>12/4</td>
<td>22/3</td>
<td>21</td>
</tr>
</tbody>
</table>

**TOTAL** | 567/201 | 623/215 | 656/242 | 746/241 | 778/263 | 845 |

Number in parentheses = Number of units required for degree  
Number before slash = Fall quarter census - master's candidates only  
Number after slash = Graduates for academic year (no data for 91-92 grads)
Graduate programs of quality in the CSU require:

1. An institutional infrastructure which provides:
   - appropriate standards and processes for admission, continuation, and graduation;
   - adequate facilities and resources (including library and information technologies) to conduct graduate work and research at an appropriate level and in an appropriate and timely fashion;
   - recognition of the need for appropriate teaching loads, resources for research, opportunities to maintain professional and pedagogical currency, and opportunities for renewal for faculty who teach graduate courses;
   - a scholarly environment providing such support programs as visiting lecturer series and faculty seminars;
   - appropriately qualified faculty to teach graduate courses or direct graduate research;
   - the involvement of graduate students in the program evaluation process; and
   - the opportunity for graduate students to participate in the intellectual discourse of departments.

2. A personalized learning format that permits greater student-professor contact (instruction, advising, and guidance) than the undergraduate model.

3. A core curriculum in each program (where it applies) which emphasizes integration of knowledge and preparation for specialization and which is designed to assure mastery of requisite knowledge and skills.

4. A curriculum characterized by advanced disciplinary content and intellectual rigor beyond the baccalaureate level which imparts within its scholarly or professional context an appreciation of the intellectual and/or professional contributions of women and minorities, and prepares scholars and practitioners for a diverse society.

5. A teaching faculty with the Ph.D. (or other appropriate terminal degree) and relevant professional experience where required.

6. A required demonstration of fundamental knowledge of research methods appropriate to the discipline.

7. A required demonstration of oral and written communication skills.

8. An opportunity to integrate and apply sophisticated knowledge in internships or practica related to the discipline.

9. A required culminating experience (e.g. thesis, project, or comprehensive examination) which demands demonstration of breadth of knowledge in the discipline, depth in specific areas, and the ability to integrate that which has been learned.