

CALIFORNIA POLYFECHNIC STATE UNIVERSITY

San Luis Obispo, California 93407 ACADEMIC SENATE 805.756.1258

MEETING OF THE ACADEMIC SENATE

Tuesday, March 2, 2004 UU220, 3:10 to 5:00pm

- I. Minutes: Approval of the February 10, 2004 Academic Senate meeting minutes (pp. 2-3).
- II. Communication(s) and Announcement(s):
 - A. Election results for 2004-2006 academic senators (to be distributed).
 - B. Athletic Fund Raising Data (p. 4-5).
- III. Reports:
 - A. Academic Senate Chair:
 - B. President's Office:
 - C. Provost's Office:
 - D. Statewide Senators:
 - E. CFA Campus President:
 - F. ASI Representatives:
 - G. Other: Kimi Ikeda will be in attendance to continue answering questions about CMS.
- IV. Consent Agenda:
- V. Business Item(s):
 - A. Resolution on *Appointment Procedures for Grant-related Instructional Faculty (GRIF) of Exceptional Merit:* Foroohar, Chair of the Faculty Affairs Committee, second reading (pp. 6-8).
 - B. Resolution on Proposal for the Establishment of the University Center for Excellence in Science and Mathematics Education:
 BaileylDetweilerlKonopak/Opava, second reading (pp. 9-15).
- VI. Discussion Item(s):
- VII. Adjournment:

CALIFORNIA POLYTECHNIC STATE UNIVERSITY San Luis Obispo, California 93407 ACADEMIC SENATE 805.756.1258

MINUTES OF The Academic Senate Tuesday, February 10, 2004 VU220, 3:10 to 5:00 pm

- I. Minutes: The minutes of January 20, 2004 were approved without change.
- II. Communications and Announcements: None.
- **m.** Reports:
 - A. Academic Senate Chair: None.
 - B. President's Office: (Howard-Greene) Election Day is March 2. The ballot will include many initiatives, two of particular relevance to Cal Poly. Proposition 55 is an education bond for K-12 and higher education and if it passes it will bring about \$34 million to Cal Poly. (If it fails to pass, it will be reintroduced in the November elections). Proposition 57 is a \$15 billion debt fmancing bond which is a significant part of the Governor's budget.
 - C. Provost's Office: (Detweiler) Budgetcuts for Cal Poly will be \$9.3 million for 2004-2005 academic year on top of the mid-year and current year reduction. 2004-2005 enrollment will be reduced by approximately 5% or 850 students, which will be largely achieved by greatly reducing summer quarter in order to stabilize the size of the freshmen class and by reducing the number of transfer students. Sollie colleges are planning to offer some classes on state support this summer while Extended Education will be increasing the number of courses offered. At this time, no agreement has been reached as to faculty salaries or students fees. Allocations to colleges and all non-college support units within Academic Affairs have been made, unevenly, based on assessment of needs and the centrality to the mission of Cal Poly.
 - D. Statewide Senators: (Menon). Information will be available at the next Academic Senate meeting since there is a Statewide meeting later this week. (Hood) The United Auto Workers (UAW) is trying to organize all graduate students like it did in the UC system. (Foroohar) The plenary of the Statewide Academic Senate passed several resolutions including a resolution in support of Proposition 56, Budget Accountability Act, which will punish the legislature if a budget is not passed on time and reduce the percentage necessary for legislative approval of the budget to 2/3 from 55%. Another resolution passed was "Faculty Role in Academic Restructuring and Program, Discontinuance." This resolution asks each campus to either review or develop a policy for discontinuance and review of programs. Our campus' Faculty Affairs Committee looked at our current policy and decided not to make any changes because some colleges are in the middle of applying the policy. A resolution on policies on the employment of graduate students, as a way to save money, was also passed and it asks campuses to create criteria for the use of graduate students in place of lecturers. Cal Poly currently doesn't have such policies but the Academic Senate Faculty Affairs Committee is discussing it.
 - E. CPA Campus President: (Foroohar) The CFA Board of Directors met last weekend in Los Angeles where it discussed Proposition 56 and the campaign supporting it. There has been a lot of discussion on the decision that some campuses are making to move summer session to Extended Education. Traditionally the problem with Extended Ed has been that student fees are higher while faculty pay is lower, but this year the Chancellor's Office has asked campus to set student fees equal to regular state fees. Nevertheless, faculty salary is still much lower than regular state funded-summer sessions. Cal Poly CPA is very concern with the borrowing of \$15 million to implement CMS Student Administration component.

- F. ASI Representatives: (Cowan) Last week ASI Board of Directors passed a resolution in support of Proposition 55 and a resolution supporting Chancellor Reed's request to save the education opportunity program from budget cuts. ASI is creating a task force to look into the implementation of senior projects campus wide and its effectiveness in fulftlling the capstone experience, and is requesting input from the Academic Senate as to what has been done in the past.
- G. Other: Academic Mfairs Office: CMS update and financial report and PolyProgress. Documents distributed at this meeting are available at http://www.calpoly.edu/~acadsen/news.html. PolyProgress - (Ikeda) is an automated degree audit system, which will enable students to advance towards their degree in a timely and efficient manner. (Detweiler) Cal Poly has spent a lot of energy and money developing this program, and it would not be smart not to bring it to closure. Additional phases to Degree Works can be delayed due to budget restrictions. CMS - (Detweiler) The Student Administration program will move ahead on a rather ambitious timeline. This seems reasonable because in 2007 our current hardware and software systems will no longer be dependable; therefore, the solution is to use the CMS Student Administration program with PeopleSoft. This is a timely and expensive process but we have no other reasonable alternative since it costs us money to keep our current system, which will be thrown away later. The harsh reality is that our current system is coming to the end of its life. That is why we can't afford to do nothing; it would put us in a high-risk situation. (Ikeda) Our current estimate for implementation is \$14 million. Cal Poly is looking at the possibility of a loan to fund the program and postponing the repayment but details are not available at this time. Questions regarding CMS will continue at the next Academic Senate meeting.
- IV. Consent Agenda: None.
- V. Business Item(s):
 - A. Resolution on Free Electives: Hannings, chair of the Curriculum Committee. First reading. The Curriculum Committee unanimously supports this resolution which allows programs to require fewer than 9 units of free electives in order to bring down the number of units required to complete a degree and requests that programs allow their students flexibility in meeting all degree requirements. <u>MlS/p</u> to move resolution to a second reading. Greenwaid proposed the following amendment to replace the last resolved clause:

<u>RESOLVED:</u> That programs proposing to reduce he number of required free electives below 8 units be required to provide justification.

MlS/p to approve the amendment as presented.

<u>MlS/F</u> friendly amendment proposed to modified approved amendment to read ...below 9 units ... <u>MlS/p</u> to approve resolution as amended.

- B. Resolution on *Appointment Procedures for Grant-related Instructional Faculty (GRIF) of Exceptional Merit:* Due to lack of time this resolution will be addressed at the next Academic Senate meeting.
- C. Resolution on Proposal for the Establishment of the University Center for Excellence in Science and Mathematics Education: Due to lack of time this resolution will be addressed at the next Academic Senate meeting.
- VI. Discussion Item(s): None.
- VIT. Meeting adjourned at 5:00 pm.

Josep

Submitted by

Gladys Gregory, Academic Senate

<u>CALPOLY</u>

California Polytechnic State University, San Luis Obispo End of Month Report Request

Date Run: February 9, 2004 10:52:39 AM

and the latest and th

Criteria: .Includes all gifts and matching gifts to the University with a date of record on or after the start of the current fiscal year and on or before

the close of the previous month.

Germann (16) der eil og Monda (3) vinger Stunningersvik fra ettelt. Den betryg 2002 (

Notes: Excludes all standard CAE exclusions.

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The report is intended for the requested purposes only.

CAL POLY End of Month Giving Summary End of Month Giving Summary through January, 2004

Athletics						
	Year Of Giving	FIY 2000	FIY 2001	FIY 2002	FIY 2003	FIY 2004 YTO
Gift Type	CAE Groups	Total Amount	Total Amount	Total Amount	Total Amount	Total Amount
Current Gifts	Alumni	\$233,099	\$306,703	\$324,567	\$243,598	\$191,121
	Individuals	\$194,561	\$106,797	\$146,604	\$93,440	\$111,372
	Corporations	\$105,545	\$133,788	\$105,886	\$118,112	\$101,781
	Corporate Matching	\$2,525	\$2,213	\$2,205	\$3,700	\$2,300
	Institutional Foundation	\$150,000	\$150,000	\$150,000	\$150,000	\$250,000
	Personal Family Foundations	\$40,140	\$20,000	\$20,200		\$200
	* Total for Gift Type:	\$725,870	Juje (6) 78	\$749,462	\$608,850	\$656,774
Endowments	Alumni	\$1,786,542	\$12,736	\$15,300	\$34,299	\$1,750
	Individuals	\$290	\$51,923	\$4,250	\$41,625	\$1,250
	Corporations	\$50			\$6,319	
	Corporate Matching					\$528
	Personal Family Foundations	\$1,000	\$2,000	\$2,000		000,400
	* Total for Gift Type:	\$1,787,882	659'99\$	\$21,550		
Capital	Alumni	\$30,000	\$30,250	\$280,897	\$418,650	\$193,002
	Individuals	\$4,000	\$120	\$3,100	\$2,040	\$7,800
	Corporations	\$55,000	\$1,000	\$176,417	\$67,950	\$49,000
	Personal Family Foundations	\$5,000				
	* Total for Gift Type:	\$94,000	0/25/76\$	\$460,414	***************************************	\$249,802
Gift-in-kind	Alumni	\$7,610	\$22,356	\$5,620	\$35,958	\$4,122
	Individuals	\$3,740	\$13,935	\$13,828	\$5,093	\$325
	Corporations	\$175,235	\$204,189	\$56,490	\$21,044	\$1,186
	* Total for Gift Type:					\$5,633
	**TotalforCollege/Unit:					

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Adopted:

ACADEMIC SENATE of $CALIFORNIA\ POLYTECHNIC\ STATE\ UNIVERSITY$ San Luis Obispo, CA

AS-_-04/

RESOLUTION ON APPOINTMENT PROCEDURES FOR GRAIVT-RELATED INSTRUCTIONAL FACULTY (GRIF) OF EXCEPTIONAL MERIT

1 2		Grant-related instructional faculty (GRIF) is a classification for faculty receiving from grants that permits such compensation to be processed through the University	
3	so that it becomes part of one's base pay (up to 25% of normal pay).		
4	~~	care part of one o case pay (ap to 20% of normal pay).	
5	When the GR	IF classification was established in 1975, campuses were asked to establish	
6	procedures for selection of appointees. While many campuses established such procedures, Cal		
7	Poly did not. As a result, selection of GRIF appointees has been ad hoc. The following resolution		
8	proposed by the Academic Senate Faculty Affairs Committee remedies the omission.		
9			
10	WHEREAS,		
11		work involves grants and grantor institutions; and	
12 13	WHEDEAC	Cal Daly has faculty alossified as CDIE but there is no set evitoria or precedures	
14	WHEREAS,	Cal Poly has faculty classified as GRIF, but there is no set criteria or procedures for nomination and appointment-eollege deans currently administer the process;	
15		and	
16		and	
17	WHEREAS,	Since the work of faculty is in the framework of academic programs, the process	
18	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	should be regulated through shared governance (Le., the Academic Senate) with	
19		the exception of contractual provisions (Le., salary and benefits) that take	
20		precedence over local policy; therefore, be it	
21			
22	RESOLYED:	That the attached Appointment Procedures for Grant-related Instructional	
23		Faculty of Exceptional Merit be approved by the Academic Senate of Cal Poly	
24		and fOlWarded to the President for his approval.	

Proposed by: Academic Senate Faculty Mfairs Committee

Date: November 20, 2003 Revised: January 6, 2004

APPOINTMENT PROCEDURES FOR GRANT-RELATED INSTRUCTIONAL FACULTY OF EXCEPTIONAL MERIT

I. Definition.

As a result of action taken by the CSU Board of Trustees, instructional faculty members meeting specified criteria may be appointed to two classifications (10-month and 12-month); each provides for compensation from grants, individual gifts or bequests, or foundation allocations at a 5 35% differential at a rate specified by the Collective Bargaining Agreement (currently 5-35%) above the salary for their regular rank and step.

Each appointment to one or the other classification is to be made, as appropriate, for one academic year or 12-month period only, subject to additional appointments by the President after faculty consultation/positive recommendation and within the limits of the grant support. Appointment to either classification does not constitute a promotion, nor does termination of an appointment without renewal constitute a demotion.

II. Minimum Qualifications.

- 1. In addition to the education and experience nonnally required for the academic rank to which they are to be appointed, the candidates must have exceptional professional merit in scholarship and teaching as evidenced by regional or national recognition.
- 2. The faculty member must be involved in the instructional program through classroom/laboratory teaching and!or mentoring students in training, research or creative activities.
- 3. The faculty member's grant and contract activity must clearly contribute to the regular responsibilities of the university.

III. Appointment Procedures.

Appointment procedures for these classifications shall be developed as follows:

- 1. Particular qualifications for positions shall be identified either by the fund grantor, subject to the approval of the appropriate department, college, or university committees and administrators; or, by consultation among the appropriate committees and administrators. Normally, d Department recruitment committees, department chairs, and college deans should shall be consulted, with final approval from the Academic Vice President and the President.
- 2. Procedures for selection of recipients of particular grants shall be developed by a similar process of consultation. Procedures will necessarily vary because of differences in the nature and tenns of funding arrangements, but should include specific provisions relating to recruitment of candidates (whether by national search; nomination by grantor, university faculty, university administrators, etc.) and the final selection. Whenever f:lossible, n Nonnal university procedures for the recruitment and selection of faculty should shall be used.

No appointment may be made without the recommendation of the appropriate faculty comniittee(s) and admiiristrator(s) in the unit to which the appointment is made, and without the approval of the Vice President of Academic Affairs and the President. The recommendations shoald-shall address whether the GRIF applicant is a distinguished faculty member who also meets criteria #II.2 and II.3.

3. Faculty members who have been awarded a sabbatical or difference-in-pay leave are not eligible for a GRIP appointment for the duration of the sabbatical or difference-in-pay.

IV. Remuneration.

- 1. Appointees to these classifications will receive compensation comprising the base salary pertaining to their normal faculty appointment plus a 5% to 35% differential at a rate specified by the Collective Bargaining Agreement (currently 5-35%) above such base salary. Minimally, the differential portion, including related employee benefits, of the total compensation to each appointee of these positions will be reimbursed from funds furnished to the campus for that purpose by the grant, from individual bequests, and by foundation allocation.
- 2. The letter of appointment shall state the amount of the differential.
- 3. When the appointmeIit to a grant-related instructional position is concluded, the individual shall revert back to the salary classification of his/her prior faculty position, if any, as determined by the amount of the differential stated in the letter of appointment.

Pertinent provisions of the collective bargaining agreements (current or future) supersede this policy.

Adopted:

ACADEMIC SENATE of CALIFORNIA POLYTECHNIC STATE UNIVERSITY San Luis Obispo, CA

AS- -04/

RESOLUTION ON PROPOSAL FOR THE ESTABLISHMENT OF THE UNIVERSITY CENTER FOR EXCELLENCE IN SCIENCE AND MATHEMATICS EDUCATION

Background: Cal Poly is unique among universities in the long established relationships among teacher education, the academic disciplines, and K 12 education. First, over a decade ago, the university chose to support education as an autonomous unit by creating the University Center fur Teacher Education. The "center" name and concept were important in that professional education faculty and educators in academic departments came together as UCTE faculty to plan and deliver instructional programs, create policies and procedures fur the unit, and participate in leadership, personnel, and budgetary matters. In particular, pregrams with a mathematics andler science focus include the blended multiple subject/liberal studies program and single subject programs in mathematics, kinesiology, life science (biology), and physical science (chemistry, physics).

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Second, in addition to UCTE programs, the sampus has long supported a wide range activities involving K 12. These have been sponsored by Academic Mfairs and Student Affairs and have fueused on preparing preservice teachers, providing professional development fur inservice teachers, and motivating, mentoring, and tutoring K 12 students. In terms of mathematics and science, examples of these activities include:

- 16. CSM prejects: California Science, Math, and Physical Education Subject Matter Projects (professional development)
- 18. UCTE special project initiatives: PAD (middle school reading and math tutoring), CAP! (high school reading and math professional development), TRP (teacher recruitment in math, science, and other areas), EAAPP (high school reading and math professional development), SMART (CSM/UCTE sponsored activities fur middle school students).
- 22. UCTE and CSM program initiatives: Teachers in Residence (elementary math/science, physics education)
- Cal Poly and K 12 collaboratives: offering Teaching with Technology Institute, alignment of
 technology standards fur preservice and inservice teachers, UCTE representative on SLOCQE
 Education Council
- 27. Cal Poly and Community College collaboratives: grant with Hancock College to train tutors, align technology requirements; and provide early field experience articulation
- 29. Cal Poly eoordinating meeting (at request of Provost Zingg): representatives with K 12 activities
 from Cf.::GR, CAED, CENG, CLf..., CSM, UCTE, Continuing Education, ProYost's Office (hOllors program, university writing lab)
- Thus, the proposal te establish a University Center fur Excellence in Science and Mathematics

 Education emerges from the long term relationships among UCTE, the academic departments, and

 K 12, the wide range of K 12 initiatives of fered acress campus, and the President's new emphasis

 on professional education.

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36		That the attached Proposal to Establish the University Center for Excellence in
37	<u>Science</u> and t	Mathematics Education be approved by the Academic Senate of Cal Poly and
38	forwarded to	the President for his approval.
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10	WHEREAS	California's continued economic vitality depends upon its ability to develop and apply
11		
12		
13	WHEREAS.	Rates of high school and college program completion in California, particularly in science,
14		technology, engineering, and mathematics (STEM) disciplines, lag behind those of many
15		other states; and
16 17	WHEDEAG	
1 7	WHEREAS,	Early exposure to and success in science and mathematics is key to successful
18 19		participatiop in STEM disciplines and careers; and
50	WHEREAS.	Competent, inspired K-12 science and mathematics teaching is perhaps the single most
51	***************************************	irnportantvariable influencing student participation and success in STEM disciplines, but
		a significant percentage of California's K-12 science and mathematics teachers are not well
53		qualified; and
52 53 54		*************************************
55	WHEREAS	The CCST (California Council on Science and Technology) Critical Path Ailalysis, and
56		national initiatives, such as the Business Higher Education Forum, are advocating greater
57		attention to K-12 students' early preparation in science and mathematics; and
58		
59	WHEREAS,	Cal <u>Poly</u> has <u>long-established</u> <u>relationships</u> and commitments to <u>preparing</u> new <u>teachers</u> .
50		providing professional development to in-service teachers, and working with K-12
51		students in the science and mathematics disciplines; therefore, be it
52		
53	RESOLVED:	That the Academic Senate endorse the Proposal to Establish the University Center for
54		Excellence in Science and Mathematics Education.

Proposed by: Philip Bailey, Robert Detweiler, <u>Bonnie Konopak</u>,

and Susan Opava

Date: November 14, 2003 Revised: January 12, 2004 Revised: January 30.2004

<u>Proposal to establish the University Center for Excellence in Science and Mathematics Education</u>

Background and purpose:

California and the nation have a critical need for an effective educational system that produces the scientists and engineers that are essential to our economy.

- California's continued economic vitality depends upon its ability to develop and apply scientific and technological innovations.
- Among the state's new, increasingly diverse generation of students, however, rates of high school and college program completion, particularly in science, technology, engineering, and mathematics (STEM) disciplines, lag behind many other states. (See, for example, the California Council for Science and Technology's 2002 "Critical Path Analysis of California's Science and Technology Education System.")
- Early exposure to and success in science and mathematics is key to successful participation in STEM disciplines and careers.
- Competent, inspired K-12 science and mathematics teaching is perhaps the single most important variable influencing student participation and success in STEM disciplines, but a significant percentage of California K-12 science and mathematics teachers are not well qualified.

Cal Poly, through the strength of its academic programS, makes an important contribution as one of the nation's leading educators of high-quality polytechnic graduates. Cal Poly also recognizes the need to strengthen the quality of science and mathematics education in California's K-12 schools in order to help ensure that California students are prepared to pursue further study leading to careers in science and technology fields. Through its support for the CCST Critical Path Analysis and initiatives at the national level, including an emerging Business Higher Education Forum K-12 science and mathematics initiative, Cal Poly has advocated greater attention to the early preparation in science and mathematics of the nation's diverse student population. Cal Poly's Centennial Celebration, the Inaugural Baker Forum and the ongoing deliberations of the President's Cabinet all have given a place of prominence to this issue.

At the April 2003 Plenary Session of the Cal Poly President's Cabinet, the Cabinet urged Cal Poly to strengthen and expand its direct efforts to support K-12 science and mathematics education and in particular its efforts to prepare and support K-12 science and mathematics teachers. On behalf of the University, President Baker accepted that challenge. The University Center for Excellence in Science and Mathematics Education is dedicated to that purpose.

Mission:

The Center's mission is to build upon and strengthen cooperative relationships with K-12 schools and private industry in order to pursue three important purposes:

1. promote and support high quality teaching of science and mathematics in K-12 schools;

- 2. produce more well-qualified K-12 teachers with special strengths in science and mathematics education; and
- 3. encourage K-12 school students to study science and math so they can enter "pathways" leading to careers in science, technology, engineering, and mathematics.

Goals:

The specific goals of the Center include the following:

- Promote and support Cal Poly's K-12 science and mathematics teacher education programs.
- Support K-12 science and mathematics teachers so they are able to remain professionally current, to be more effective with their students, and to be retained in the teaching profession.
- Encourage private industry to support K-12 science and mathematics teachers, students, and programs.
- Encourage K-12 students to study science, technology, engineering and mathematics (STEM) disciplines and pursue careers in STEM fields.
- Serve as a repository of information on "best practices" in K-12 science and mathematics education.
- Assess the quality of science and mathematics educational programs.
- Influence public policy regarding excellence in science and mathematics education.

Proposed short-term-objectives:

- (1) Expand Cal Poly's K-12 science and mathematics teacher education program in order to increase the number of graduates per year to 50.
- (2) Support the outreach efforts of the admissions staff and expand "targeted" recniitment in order to ensure the quality and diversity of students in Cal Poly's K-12 science and mathematics teacher education programs (elementary and secondary levels).
 - Expand on <u>targeted</u> recruitment in the Liberal Studies program.
 - Identify specific ways to recruit, good students for the single subject (secondary school) credential program in science and mathematics.
- (3) Collect information on "best practices" in science and mathematics education from existing programs throughout the nation, and provide assessment and evaluation of Cal Poly programs in these areas.
- (4) Solicit financial support from corporations and individuals to provide scholarships for science and mathematics education students at Cal Poly with an initial goal of scholarship support for 10 students.
- (5) Seek grants and corporate support to help fund the following needs of the Center:
 - Support for the operation of the Center.
 - Support for building stronger relationships with "partner" schools.
 - Scholarships for "partner" school graduates who go into science and mathematics education programs at Cal Poly.
 - Support for science and mathematics teachers in selected schools who would like to help recruit K-12 students into the science and mathematics "pathway."

- A part-time grant writer to assist with specific grant applications
- (6) Establish a Cal Poly website to aid and support K-12 science and mathematics teachers through dissemination of information on curricular innovations, pedagogy, learning assessment, etc.
- (7) Form an advisory group of K-12 science and mathematics teachers to help guide the work of Cal Poly and the Center.
- (8) Host K-12 science and mathematics teachers annually at Cal Poly to review their needs, to consider ways to strengthen STEM pathways, and to identify ways to improve teacher retention.
- (9) Form a corporate advisory group to provide advice and to assist with targeted fund raising that will help accomplish the goals of the University and Center.

Proposed longer-term objectives:

- (1) Provide a summer institute to enhance the competency and teaching skills of K-12 science and mathematics teachers.
- (2) Provide on-line instruction to support K-12 science and mathematics teachers.
- (3) Provide professional development and support for science and mathematics teachers at "partner" schools
- (4) Provide corporate internships or summer employment for K-12 science and mathematics teachers to encourage and support their interest in remaining in the teaching profession.
- (5) Establish a school-within-a school in a selected K-12 district or districts to direct elementary and secondary school students into careers as science and mathematics teachers (future teacher academy concept).
- (6) Organize Cal Poly administrators, faculty, and students to work with K-12 representatives and corporate leaders to influence public policy concerning K-12 science and mathematics teaching and educational "pathways."
- (7) Expand the teacher-in-residence program.
- (8) Explore ways to recruit targeted retirees into K-12 science math teaching as a "second career."
- (9) Explore ways to expand "blended" programs for K-12 science and mathematics teacher education students.
- (10) Form a "Future Science and Mathematics Teachers Club" at one or more targeted K-12 schools.
- (11) Provide a mobile wet lab to aid K-6 teachers introduce students to and excite their interest in discovery.

Needfor a new organizational structure:

The Center is intended to work within the present Cal Poly organizational structure (particularly the College of Science and Mathematics, the University Center for Teacher Education, and the College of Liberal Arts) to focus on expanding the University's commitment in the area of K-12 science and mathematics education. It will not alter the current academic structure, but will draw upon and support key faculty and staffwithin that structure as they seek to achieve the goals outlined above. In brief, the Center will attempt to stimulate and coordinate efforts by faculty

and staff from diverse Cal Poly Units, from K-12 schools, and from industry. It will seek resources and provide encouragement to faculty and staff who are committed to enhancing K-12 science and mathematics teaching. The Center is needed to help Cal Poly achieve a substantial expansion of its involvement with K-12 science and mathematics education and promotion of pathways to careers in science and technology for K-12 students.

Relationship to the instructional program:

The Center is intended to support and assist Cal Poly instructional programs, particularly the science and mathematics teacher preparation programs and master's degree programs in the College of Science and Mathematics, the Liberal Studies Program in the College of Liberal Arts, and the University Center for Teacher Education. It will draw upon faculty and staff from these Cal Poly instructional programs to serve on the Center Advisory Council, and it will remain in close communication with these programs and support them. The Center will not provide instructional programs independent of existing academic entities, yet its work will help foster a broader awareness of science and technology issues and "literacy."

Founding members and their expertise:

Provost Paul Zingg has taken the lead in forming the Center. He formed a steering committee to initiate the Center's structure, **goals**; and objectives; this group includes Dean Philip Bailey of the College of Science and Mathematics, Dean Bonnie Konopak of the University Center for Teacher Education, Dean Harry Hellenbrand of the College of Liberal Arts, and Dan Howard-Greene and Robert Detweiler from the President's office. The Center will draw upon the expertise of Cal Poly faculty and staffwho work with K-12 science and **mathematics** education, local K-12 teachers and administrators, and representatives from industry.

Effect of the unit on academic departments:

The Center will seek to support faculty and staffwho are committed to K-12 science and mathematics education. It will foster growth of their academic programs, seek grants and contributions to assist their enterprises, and provide a means for **communication** and cooperation. This unit will serve as an advocate for and aid to Cal Poly faculty and staffwho are working to graduate more K-12 science and mathematics teachers; it will seek to aid K-12 teachers who are currently in the field; and it will support activities that encourage K-12 students to pursue careers in science and technology.

Organizational structure of the unit:

The Center will report to the Provost. It will be guided by **a**Center director and a Board of Directors. Board members and the Board Chair shall be appointed by the University President and shall include:

- Provost
- Dean, College of Science and Mathematics
- Dean, College of Liberal Arts

- Dean, University Center for Teacher Education
- One (I) representative from the Center's corporate advisory group.
- Five (5) representatives from K-12 education, at least three of whom will be science or mathematics teachers
- Two (2) community college faculty, with representatives from Cuesta College and Hancock College
- Five (5) Cal Polyfaculty, with representatives from the College of Liberal Arts, College of Science and Mathematics, and the University Centerfor Teacher Education
- Two (2) Cal Poly science and mathematics education students
- One (I) representative from University Advancement
- Executive Assistant to the President

The Director of the Center will organize Board meetings and support the Board Chair in convening the Board. Board meetings will take place at least once each quarter during the regular academic year, or more often as needed.

Bylaws and more formal operating procedures will be developed by the Center Director and Board.

Fiscal and administrative support and facilities:

The Center will not be allocated statefunding for its operations. Rather it will draw on existing Cal Poly staffand volunteer Advisory Board members for support and seek outside funding for its activities.

Dr. Philip Bailey, Dean of the College of Science and Mathematics, and Dr. Bonnie Konopak, Dean of the University Center for Teacher Education, are serving as the Center's founding codirectors and will meet the Center's initial day-to-day administrative support requirements through the existing resources of their respective offices.

The Center will seek grants and donations to help faculty and staff achieve Cal Poly's goals of enhancing K-12 science and mathematics education, particularly those involving K-12 teachers and students directly.,

The Center itselfwill require minimal funds to operate, inasmuch as it draws upon existing staff and resources. On the other hand, it will cost a substantial amount to expand Cal Poly's teacher education programs, to support K-12 teachers, and to encourage K-12 students to study science and technology. The rate of achieving these objectives will depend on expansion of State support, winning grants and donations, and engaging corporate and other partners.

The Center is not dependent on outside sources of funding for its modest initial operation. If it uses grants or donations to expand operations, however, and later those sources are no longer available then the Center must be pared back. The purpose of the Center is to aid existing academic programs to expand their work in K-12 science and mathematics education; it will not drain resources from academic units or programs.