

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

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MAY 9 1989

**Executive Committee  
 Academic Senate Agenda  
 Tuesday, May 9, 1989  
 UU220 3:00-5:00 p.m.**

**Academic Senate**

16/9

<u>Member:</u>	<u>Dept:</u>	<u>Member:</u>	<u>Dept:</u>
Aceto, Jeanne (Secty)	Placemt	Moustafa, Safwat	MechEngr
<b>Andrews, Charles ((CH))</b>	Acctg	Murphy, James	IndTech
Borland, James	ConstMgt	Terry, Raymond	Math
Burgunder, Lee	BusAdm	Vilkitis, James	NRM
Crabb, A. Charles	IntAsDn,SAGR	Weatherby, Joseph	PoliSci
Dobb, Linda	Library	Wilson, Malcolm	VPAA
Gooden, Reg	PoliSci	Zeuschner, Raymond	SpCom
Kersten, Timothy	Econ	<b>Copies:</b> Warren J. Baker	
Lutrin, Sam (VC)	StLf&Actvs	Bill Rife	
		Howard West	

4.25.89  
 minutes removed

- I. Minutes:  
 Approval of the April 25, 1989 Executive Committee Minutes (pp. 2-3).
- II. Communication(s) and Announcement(s): *Safwat -*
- III. Reports: *May 25 - Luncheon for red & new X C, hosted by Pres. Baker*  
*May 19 - last date to report new caucus members & Chair*  
 A. President *Elected in School of Eng for Senator; D.H. Mallareddy*  
 B. Academic Affairs Office *Civil*  
 C. Statewide Senators *@ Don White I &*
- IV. Consent Agenda:
- V. Business Item(s):
  - A. GE&B Course Proposals-Culver, Chair of the GE&B Committee (pp. 4-33).
  - B. Resolution to Establish the CIM Center-Carnegie, Chair of the Agricultural Engineering Department (pp. 34-46).
  - C. Resolution on Mentoring Program-Byars, Chair of the Status of Women Committee (p. 47).
  - D. Academic Senate/UPLC vacancies requiring one-year appointments:
 

SAGR	1 Senate vacancy
SAED	UPLC vacancy
SBUS	1 Senate vacancy
	UPLC vacancy
SSM	5 Senate vacancies
- VI. Discussion Item(s): *Resolution on Sexual Harassment*  
*Indirect Cost Sharing*
- VII. Adjournment: *Equal Harassment*  
 time certain 4:55pm  
*May 2*

*do you want A/S office to  
 Solicit Nominations or  
 leave it to Caucus Chair  
 for UPLC & Senate*

A Note Re: F.2 Proposals

Background: Cal Poly is the only CSU campus which has a technology component built into its GE&B program. The requirement identifies two areas of classroom/lab exposure for students: F.1 concerns "computer literacy" while F.2 addresses courses "designed to acquaint students with an awareness of how technology influences and is influenced by today's world."

In 1986, President Baker asked Senate Chair Lloyd Lamouria for clarification as to the F requirement in general and the criteria for the list of classes in F.2 specifically. For the past several years, the Area F Subcommittee and the GE&B Committee have examined Area F in light of the President's concerns. Our recommendations reflect efforts to provide both meaningful criteria and appropriate classes for Area F.

Where We Are Today: A number of factors were involved in how the Area F Subcommittee and the GE&B Committee have evaluated courses proposed for Area F this year. So that each senator is apprised of our process, I want to note several significant factors that have led to our collective recommendations to you.

First, the following proposals are divided into two categories:

- 1-- all courses submitted for inclusion in F.2;
- 2-- some courses currently on the F.2 list which the Area F Subcommittee and GE&B Committee recommend be deleted.

Second, we are recommending against inclusion of most of the #1 course proposals because they do not conform to one or both of the following Knowledge and Skills Statements (KSS) which were adopted by faculty referendum at the time the new GE&B program was established on this campus. The two KSS which apply to Area F are:

- KSS#7: "Cal Poly graduates, by virtue of their education at a polytechnic university, should understand how technology influences and is influenced by cultural and environmental factors, the applications of technology to contemporary problems, and the potential of technology to both positively and negatively affect individuals and societies."
- KSS#9: "Cal Poly graduates, because they will be living in a technological world, should be exposed to courses taught within the technological areas, so that they will have a basis for developing a better understanding of how technology influences and is influenced by present day cultures and other environmental factors."

Third, we recommend against category 2 courses for F certification. Departments with courses which were initially identified as not meeting the requirements of KSS 7 and/or 9 were notified of this by me and a request for additional information on these courses was made. Some departments responded, others did not. Several months later, the Area F Subcommittee repeated this concern over the appropriateness of these courses for the F.2 list and, again, a request was made for a rationale explaining how the courses met the Area F criteria. Subsequently, the Area F Subcommittee and the GE&B Committee identified a number of courses which did not appear to qualify for continuation on the F.2 list. These are the category 2 courses.

John Culver, Chair  
GE&B Committee  
4/25/89







GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME B. A. Troy	2. PROPOSER'S DEPT. EDUCATION
3. SUBMITTED FOR AREA (include section, and subsection if applicable) F.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) ED 380X Computer Based Curriculum (3): Computer assisted instruction and computer based technology. Lesson planning and integration into the K-12 curriculum. Familiarization with available education courseware and software. Emphasis on classroom applications. 2 Seminars, 1 Activity.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS Course <u>rejected</u> because the focus is too narrow; it does not meet the F criterion of how "technology influences and is influenced by today's world." Does not meet Knowledge and Skills Statement 9.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS The GE&B Committee concurs with the subcommittee recommendation.	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME	2. PROPOSER'S DEPT. Food Science & Nutrition
3. SUBMITTED FOR AREA (include section, and subsection if applicable) F.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format)  FSN 170 <u>Introductory Food Science</u> (4): Principles and practices of food science and technology. Ingredient properties, methods of preservation, handling and processing of foods representing the major food groups. 3 lectures, 1 laboratory.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  Course <u>rejected</u> because the focus is too narrow; it does not meet the F criteria of how "technolgy influences and is influenced by today's world."	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  The GE&B Committee concurs with the subcommittee recommendation.	
7. ACADEMIC SENATE RECOMMENDATION	

# GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME	2. PROPOSER'S DEPT. Food Science & Nutrition
3. SUBMITTED FOR AREA (include section, and subsection if applicable) F.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) FSN 339 <u>Cereal, Bakery and Snack Food Technology</u> (3): Applied technology of producing cereal, bakery items, sheeted and extruded snack food products. Milling of various flours. Functional properties of ingredients used and their effect on product quality. Comparative nutritional properties also discussed. Field trips may be required. 3 lectures. Prerequisite: CHEM 121, CHEM 122 and junior standing or consent of instructor.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  Course <u>rejected</u> because the focus is too narrow; it does not meet the F criteria of how "technology influences and is influenced by today's world."	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  The GE&B Committee concurs with the subcommittee recommendation.	
7. ACADEMIC SENATE RECOMMENDATION	

## GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME	2. PROPOSER'S DEPT. Food Science & Nutrition
3. SUBMITTED FOR AREA (include section, and subsection if applicable) F.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) FSN 341 Wines and Fermented Foods (3): Processing, manufacturing and bio-technical applications of fermentation technology for the production of food products. Wine, beer, pickles, olives and other fermented food products important to the post-harvest economy of California. Field trips may be required. 3 lectures. Prerequisite: Junior standing.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS Course <u>rejected</u> because the focus is too narrow; it does not meet the F criteria of how "technology influences and is influenced by today's world."	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS The GE&B Committee concurs with the subcommittee recommendation.	
7. ACADEMIC SENATE RECOMMENDATION	





GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME  Leonard Wall	2. PROPOSER'S DEPT.  PHYSICS
3. SUBMITTED FOR AREA (include section, and subsection if applicable)  F.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format)  GEOL 211 <u>Cities and Geology</u> (3): Relation of city sites to geology. Planning and geology. Hydrogeology. Foundations of cities. Excavations. Building materials. Urban geological hazards. Case histories and lessons for the future. 3 lectures.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  Course <u>rejected</u> because the focus is too narrow; it does not meet the F criterion of how "technology influences and is influenced by today's world." Does not meet Knowledge and Skills Statement 9.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  The GE&B Committee concurs with the subcommittee recommendation.	
7. ACADEMIC SENATE RECOMMENDATION	







## GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Alice Loh	2. PROPOSER'S DEPT. Landscape Architecture
3. SUBMITTED FOR AREA (include section, and subsection if applicable) F.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) LA 333X <u>English Landscapes and Gardens</u> (4): An introduction to English picturesque and romantic landscapes and gardens; their tradition, history, and the interrelationship with painting, poetry, and landscape architecture. Lectures, research and field trips are to explore their strengths and influences. 2 lectures (London Study Program only, or permission of the instructor), 2 activities.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  Course <u>rejected</u> because the focus is too narrow; it does not meet the <del>F criterion</del> of how "technology influences and is influenced by today's world." Does not meet Knowledge and Skills Statement 9.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  The GE&B Committee concurs with the subcommittee recommendation.	
7. ACADEMIC SENATE RECOMMENDATION	

## GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Cheri Burns	2. PROPOSER'S DEPT. O.H.
3. SUBMITTED FOR AREA (include section, and subsection if applicable) F.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) OH 330 Floral Technology (3): Post harvest care, handling and utilization of Floriculture crops. Study of theory and techniques employed commercially in prolonging life of fresh plant materials and processing of permanently perserved cut flowers and foilage. Consumer applciation of theory with lab practice in appropriate use of floriculture products. 2 lectures, 1 laboratory.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  Course <u>rejected</u> because the focus is too narrow; it does not meet the F <u>riterion</u> of how "technology influences and is influenced by today's world." <u>Criterion</u> Does not meet Knowledge and Skills Statement 9.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  The GE&B Committee concurs with the subcommittee recommendation.	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

<p>1. PROPOSER'S NAME</p> <p>John Mottmann</p>	<p>2. PROPOSER'S DEPT.</p> <p>PHYSICS</p>
<p>3. SUBMITTED FOR AREA (include section, and subsection if applicable)</p> <p>F.2</p>	
<p>4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format)</p> <p>PHYS 213 <u>Introduction to Nuclear Physics</u> (3): Nuclear radiations and interactions. Detection methods, instruments and radioactive hazards. Nuclear reactions and induced radioactivity. Nuclear energy. 3 lectures. Prerequisite: PHYS 211.</p>	
<p>5. SUBCOMMITTEE RECOMMENDATION AND REMARKS</p> <p>Course <u>rejected</u> because the focus is too narrow; it does not meet the F criterion of how "technology influences and is influenced by today's world." Taught by faculty who are not included in language of Skills and Knowledge Statement 9.</p>	
<p>6. GE &amp; B COMMITTEE RECOMMENDATION AND REMARKS</p> <p>The GE&amp;B Committee concurs<sup>y</sup> with the subcommittee recommendation.</p>	
<p>7. ACADEMIC SENATE RECOMMENDATION</p>	





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GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Dianne Long	2. PROPOSER'S DEPT. Political Science
3. SUBMITTED FOR AREA (include section, and subsection if applicable) F.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format)  POLS 404 <u>Science, Technology and Public Policy</u> (3): Analysis of the problems stemming from the relationship of technology and politics. Ecology, energy crisis, civilian-military complex, electronic eavesdropping, governmental support of technology, policy implications of technological change. Individual's role and responsibilities in a democracy. 3 lectures. Prerequisite: POLS 210 or equivalent.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  Course <u>rejected</u> because the focus is too narrow; it does not meet the F criterion of how "technology influences and is influenced by today's world." Does not meet Knowledge and Skills Statement 9.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  The GE&B Committee concurs with the subcommittee recommendation.	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Charles Slem and Dan Levi	2. PROPOSER'S DEPT. Psychology
3. SUBMITTED FOR AREA (include section, and subsection if applicable) F.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) Psy 494 <u>Psychology of Technological Change</u> (3): Examines the impact of technological change on the psychological and social characteristics of people and organizations. Identifies personal, social and organizational factors which provide obstacles and opportunities for technological change. Survey of methods of reducing the negative impact of change. 3 Seminars. Prerequisite: Senior level or graduate standing.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  Course <u>rejected</u> because the focus is too narrow; it does not meet the F criterion of how "technology influences and is influenced by today's world." Does not meet Knowledge and Skills Statement 9.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  The GE&B Committee concurs with the subcommittee recommendation.	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME	2. PROPOSER'S DEPT. AERO ENGR
3. SUBMITTED FOR AREA (include section, and subsection if applicable)	
<p>4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format)</p> <p>Aero 102: <u>Introduction to General Aviation</u> (3): Fundamentals of aerodynamics and principles of flight. Introduction to power systems and instrumentation used by general aviation aircraft. Principles of air navigation. Interpretation of weather data, uses of flight computer, applicable Federal Aviation Regulations, subjects covered in the private pilot's examination. Not acceptable as a technical elective for engineering students. Not open for technical credit to Aeronautical Engineering students. 3 lectures.</p>	
<p>5. SUBCOMMITTEE RECOMMENDATION AND REMARKS</p> <p>Subcommittee F recommends that this course <u>be deleted</u> from the F.2 list because the focus is too narrow; it does not meet the F criterion of how "technology influences and is influenced by today's world."</p>	
<p>6. GE &amp; B COMMITTEE RECOMMENDATION AND REMARKS</p> <p>The GE&amp;B Committee concurs with the subcommittee recommendation and its justification in recommending deletion of this course from the F.2 list.</p>	
<p>7. ACADEMIC SENATE RECOMMENDATION</p>	



GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME	2. PROPOSER'S DEPT. Animal Science
3. SUBMITTED FOR AREA (include section, and subsection if applicable)	
<p>4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format)</p> <p>ASCI 202 <u>Feeds and Feeding</u> (3): Simple use of food nutrients. Identification and classification of feeds for each class of livestock. Digestion and utilization of feeds. Feeding standards and computation of simple rations for livestock. Economy in feeding and purchasing feeds by nutritive values. 3 lectures.</p>	
<p>5. SUBCOMMITTEE RECOMMENDATION AND REMARKS</p> <p>Subcommittee F recommends that this course <u>be deleted</u> from the F.2 list because the focus is too narrow; it does not meet the F criterion of how "technology influences and is influenced by today's world."</p>	
<p>6. GE &amp; B COMMITTEE RECOMMENDATION AND REMARKS</p> <p>The GE&amp;B Committee concurs with the subcommittee recommendation and its justification in recommending deletion of this course from the F.2 list.</p>	
<p>7. ACADEMIC SENATE RECOMMENDATION</p>	





GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME	2. PROPOSER'S DEPT. Dairy Products Technology
3. SUBMITTED FOR AREA (include section, and subsection if applicable)	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format)  DPT 230 General Dairy Manufacturing (4): Composition and properties of fluid milk and manufactured milk products. Chemistry and microbiology of dairy products. Processes and equipment involved in the manufacture of butter, cheeses, and other fermented dairy products, frozen, condensed, and dried dairy foods. Elective course for nondairy students. Survey course for dairy husbandry majors. 3 lectures, 1 laboratory.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  Subcommittee F recommends that this course <u>be deleted</u> from the F.2 list because the focus is too narrow; it does not meet the F criterion of how "technology influences and is influenced by today's world."	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  The GE&B Committee concurs with the subcommittee recommendation and its justification in recommending deletion of this course from the F.2 list.	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME	2. PROPOSER'S DEPT. Food Science & Nutrition
3. SUBMITTED FOR AREA (include section, and subsection if applicable) F.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) FSN 230 <u>Elements of Food Processing</u> (3): Principles of unit operations in food processing covering canning, freezing, dehydration, fermentation and concentration. Food quality and spoilage. For non-food science majors only. 3 lectures, 1 laboratory.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  Recommend that this course be <u>deleated</u> from the F.2 list because it does not meet the F criteria of how "technology influences and is influenced by today's world."	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  The GE&B Committee concurs with the subcommittee recommendation.	
7. ACADEMIC SENATE RECOMMENDATION	



**GENERAL EDUCATION AND BREADTH PROPOSAL**

1. PROPOSER'S NAME	2. PROPOSER'S DEPT. Landscape Architecture
3. SUBMITTED FOR AREA (include section, and subsection if applicable)	
<p>4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format)</p> <p>LA 213 <u>Site and Terrain Analysis</u> (3-4): Introduction and application of selected inventory and analysis techniques through interpretation, reading and evaluation of land and terrain descriptions including maps, air photos, soil survey, hydrologic studies, contour and landform models. Projects range in size and scope from limited sites to regional areas. 2 lectures, 1-2 laboratories.</p>	
<p>5. SUBCOMMITTEE RECOMMENDATION AND REMARKS</p> <p>Subcommittee F recommends that this course be deleted from the F.2 list because the focus is too narrow; it does not meet the F criterion of how "technology influences and is influenced by today's world."</p>	
<p>6. GE &amp; B COMMITTEE RECOMMENDATION AND REMARKS</p> <p>The GE&amp;B Committee concurs with the subcommittee recommendation and its justification in recommending deletion of this course from the F.2 list.</p>	
<p>7. ACADEMIC SENATE RECOMMENDATION</p>	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME	2. PROPOSER'S DEPT. Poultry Industry
3. SUBMITTED FOR AREA (include section, and subsection if applicable)	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) PI 121 Poultry Industry Development (4): Scope and importance of the poultry industry as a part of California agriculture. Poultry organizations, publications, employment opportunities. Basic skills in industry organization 3 lectures, 1 laboratory.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS Subcommittee F recommends that this course <u>be deleted</u> from the F.2 list because the focus is too narrow; it does not meet the F criterion of how "technology influences and is influenced by today's world."	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS The GE&B Committee concurs with the subcommittee recommendation and its justification in recommending deletion of this course from the F.2 list.	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME	2. PROPOSER'S DEPT. Poultry Industry
3. SUBMITTED FOR AREA (include section, and subsection if applicable)	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) PI 222 <u>Poultry Products, Processing and Marketing</u> (3): Assembling, processing, distributing and merchandising of poultry meat and eggs. Standardization and regulations applicable to the marketing of poultry products. Development and promotion of consumer products. 2 lectures, 1 laboratory.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  Subcommittee F recommends that this course <u>be deleted</u> from the F.2 list because the focus is too narrow; it does not meet the F criterion of how "technology influences and is influenced by today's world."	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  The GE&B Committee concurs with the subcommittee recommendation and its justification in recommending deletion of this course from the F.2 list.	
7. ACADEMIC SENATE RECOMMENDATION	



**GENERAL EDUCATION AND BREADTH PROPOSAL**

1. PROPOSER'S NAME	2. PROPOSER'S DEPT. Poultry Industry
3. SUBMITTED FOR AREA (include section, and subsection if applicable)	
<p>4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format)</p> <p>PI 305 <u>Game Bird Propagation and Management</u> (3): Game bird anatomy, physiology and nutrition. Health, natural and artificial reproduction, and rearing techniques as practiced in public programs and private enterprises. 3 lectures. Prerequisite: One quarter college mathematics, one quarter animal biology and CHEM 121.</p>	
<p>5. SUBCOMMITTEE RECOMMENDATION AND REMARKS</p> <p>Subcommittee F recommends that this course be deleted from the F.2 list because the focus is too narrow; it does not meet the F criterion of how "technology influences and is influenced by today's world."</p>	
<p>6. GE &amp; B COMMITTEE RECOMMENDATION AND REMARKS</p> <p>The GE&amp;B Committee concurs with the subcommittee recommendation and its justification in recommending deletion of this course from the F.2 list.</p>	
<p>7. ACADEMIC SENATE RECOMMENDATION</p>	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME	2. PROPOSER'S DEPT. Poultry Industry
3. SUBMITTED FOR AREA (include section, and subsection if applicable)	
<p>4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format)</p> <p>PI 306 Game Bird Propagation and Management Laboratory (1): Field trips and basic skills in propagation and management in support of PU 305. 1 laboratory. Prerequisite or concurrent: PI 305.</p>	
<p>5. SUBCOMMITTEE RECOMMENDATION AND REMARKS</p> <p>Subcommittee F recommends that this course <u>be deleted</u> from the F.2 list because the focus is too narrow; it does not meet the F criterion of how "technology influences and is influenced by today's world."</p>	
<p>6. GE &amp; B COMMITTEE RECOMMENDATION AND REMARKS</p> <p>The GE&amp;B Committee concurs with the subcommittee recommendation and its justification in recommending deletion of this course from the F.2 list.</p>	
<p>7. ACADEMIC SENATE RECOMMENDATION</p>	



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

**RESOLUTION ON  
PROPOSAL TO ESTABLISH THE CIM CENTER**

**RESOLVED:** That the attached Proposal to Establish the CIM Center be adopted by the Academic Senate and recommended to the president for approval.

Proposed by:  
See attached Proposal  
Interested faculty

**PROPOSAL TO ESTABLISH  
A  
COMPUTER INTEGRATED MANUFACTURING CENTER**

**at**

**California Polytechnic State University  
San Luis Obispo**

**Submitted By**

**E. J. Carnegie, SAGR  
Art Chapman, CAPC  
Archie Cheda, SENG  
Mark Clayton, SAED  
Mark Cooper, SENG  
Gerry Cunico, SPSE  
Rob Grant, SBUS  
Steve Hockaday, SENG  
R. Krishnan, SBUS  
Dan Levi, SPSE  
Unny Menon, SENG  
Saeed Niku, SENG  
Jens Pohl, SAED  
Ahmad Seifoddini, SENG  
Chuck Slem, SPSE  
Dan Woodlard, SAED  
Ken Riener, SBUS**

**on behalf of interested faculty**

**April 1989**

## TABLE of CONTENTS

TITLE	PAGE
Time For Computer Integrated Manufacturing is Now.....	3
Purpose .....	3
Benefits to Cal Poly and Industry .....	4
Center Functions .....	4
Extension Programs.....	6
Training Programs.....	6
Development .....	6
Budget .....	6
Facilities .....	6
Organizational Chart .....	7
Bylaws .....	8

**Proposal to Establish  
A  
Computer Integrated Manufacturing (CIM) Center  
at Cal Poly, SLO**

**Time For Computer Integrated Manufacturing Is Now:**

American manufacturers and producers are subject to increasing competition in domestic and international product and service areas. Whereas in the past, American manufacturers had commanding market presence and control in these areas, today entire domestic product sectors are emaciated (steel production, optics, ore recovery), are unhealthy (electronic substrates), or are in continual jeopardy of succumbing to foreign competition (automobile manufacture, commercial aircraft manufacture). American industry is beginning to respond to competitive pressures in the face of evolving product and production technology. Also, lacking a strong management of technology program, many investments in technology (technology for the sake of technology) have failed.

In many cases, technology is changing so rapidly that industrial employees find themselves falling so far behind that they actively resist the introduction of new technology. Managing this technological change can help a company remain current; and an influx of graduates from existing degree programs, that have a contemporary education and exposure to current process technology, will provide a major vehicle for introducing and implementing necessary changes.

Departments in the various Schools at Cal Poly, SLO have made contributions to integrated manufacturing in areas of education, research, and development. Center participants will be uniquely able to contribute to computer integrated manufacturing because of the hands-on educational philosophy of Cal Poly. The nascent center is an asset eagerly anticipated by California and U.S. industry.

Computer integrated manufacturing is an engineering and management framework, formed to improve manufacturing process productivity through integration programs and integration technologies. In this respect CIM is a business methodology as well as an engineering discipline. The CIM Center at Cal Poly will serve the immediate needs of American industry by providing answers to specific problems and disseminating information. The center will serve the long range needs of industry by providing graduates with computer integrated manufacturing awareness and expertise.

**PURPOSE:**

Computer integrated manufacturing is an university-wide interdisciplinary endeavor. Efforts by individual faculty, and even orchestrated efforts by entire departments would not answer the current needs of the American manufacturing sector. The proposed Center will be an organizational vehicle to coordinate an industry-university partnership at Cal

Poly. The Center will serve as a common ground for the meeting of varied university resources and industrial opportunities. The Center will support the interdisciplinary needs of computer integrated manufacturing education and research, and will foster interaction between industry and the university, consistent with the goals of Cal Poly.

## **BENEFITS**

### **Benefits to Cal Poly**

The Center will provide a vehicle for:

- o the interaction of students and faculty from varied academic backgrounds;
- o the focusing of academic talent on pertinent industrial problems;
- o allowing the substantial talents of the students and faculty to flower in areas of strength, and grow into new areas;
- o the fostering of the "hands-on" experimental learning approach;
- o more efficient and effective use of university facilities;
- o stimulating research and development in CIM, and promoting education in CIM concepts;
- o stimulating activity in the development of meaningful CIM curricula and promoting the permeation of CIM concepts into existing courses;
- o promoting partnerships in the Industrial Associate and Graduate Internship programs;
- o the cooperation, interaction, and sharing with other centers on campus.

### **Benefits to Industry**

The Center will provide a vehicle for:

- o the interaction of faculty and industry in the development of courses and workshops;
- o improving the ability of companies to conceive of new products, and to deliver these products in a timely and cost-effective fashion;
- o bringing industry needs and priorities to interested problem solvers;
- o testing preliminary concepts and prototypes;
- o sharing state-of-the-art technology with those most able to implement that technology;
- o creating opportunities for professional development;
- o finding graduates who can respond to the industry need for personnel familiar with computer integrated manufacturing, and who are willing to participate in its development and implementation.

## **CENTER FUNCTION**

The proposed Center will be responsible for the coordination of CIM activities on the Cal Poly campus. The Center will obtain funds and provide direction for research, development and training in the computer integrated manufacturing arena. Specifically, the Center will endeavor to:

- o provide research, development and training programs using state-of-the-art computer integrated manufacturing technologies;
- o establish an Invited Lecture Series;
- o provide short courses, conferences and workshops to practicing professionals and other interested groups;
- o develop a visiting student and visiting professor program to strengthen the hands-on approach in CIM technology transfer;
- o stimulate and promote collaborative relationships with similar groups at other universities;
- o make modern equipment and state-of-the-art technology available to Cal Poly students.

Existing CIM activities include the campus IEEE Video Conference of May 1987, personnel loans by Northern Telecom, and relationships with the Consortium for Integrated Design and Manufacturing Education and the Institute for Manufacturing and Automation Research during the past two years. These activities have generated industry and government support, as follows:

TRW Faculty Assistantship.....	\$ 30,000
IBM CAFE & DMIS Projects.....	\$ 50,000
Northern Telecom University Interaction Program.....	\$ 80,000*
DEC Electronic Manufacturing Project.....	\$ 50,000
Controlled Traffic Farming Project.....	\$ 200,000
ICADS Project.....	\$ 300,000
Menon NSF ILI Grant.....	\$ 65,000
Cheda NSF ILI Grant.....	\$ 42,000

\* each year for past four years

In addition industry has demonstrated its willingness to loan key personnel for extended periods of time. (Andrew Young, Northern Telecom executive loan program).

A listing of some major educational, research and development activities that could be conducted within the framework of the proposed Center follows. The unique expertise of Cal Poly personnel, and their dedication to the "learn by doing" ideal provide for a singular capability. A synergistic expansion of this capability will accompany growing industrial involvement.

### Extension Programs

Short courses and seminars will include discussion topics such as Process Planning,



Design Verification, Expert Systems, Human Impact Issues, Implementation Strategies, Quality and Cost Management, and Inventory Management.

### **Training Programs**

Training courses will be based on particular laboratory or computer facilities including Expert Systems, Simulation, Networking, and Programmable Controller Applications.

### **Development**

Development includes identification and solution of integration problems in computer-aided design, manufacturing, and management.

### **BUDGET**

The operating budget of the proposed Center will be closely aligned to the evolving level of industry support. While initial funding levels may not allow the employment of any staff, it is expected that eventually the Center will generate adequate funds to support the following operational expenses:

Director .....	0.5 time
Manager .....	\$80,000
Administrative Asst. ....	\$40,000
Technician .....	\$60,000
Operating Expenses .....	\$50,000

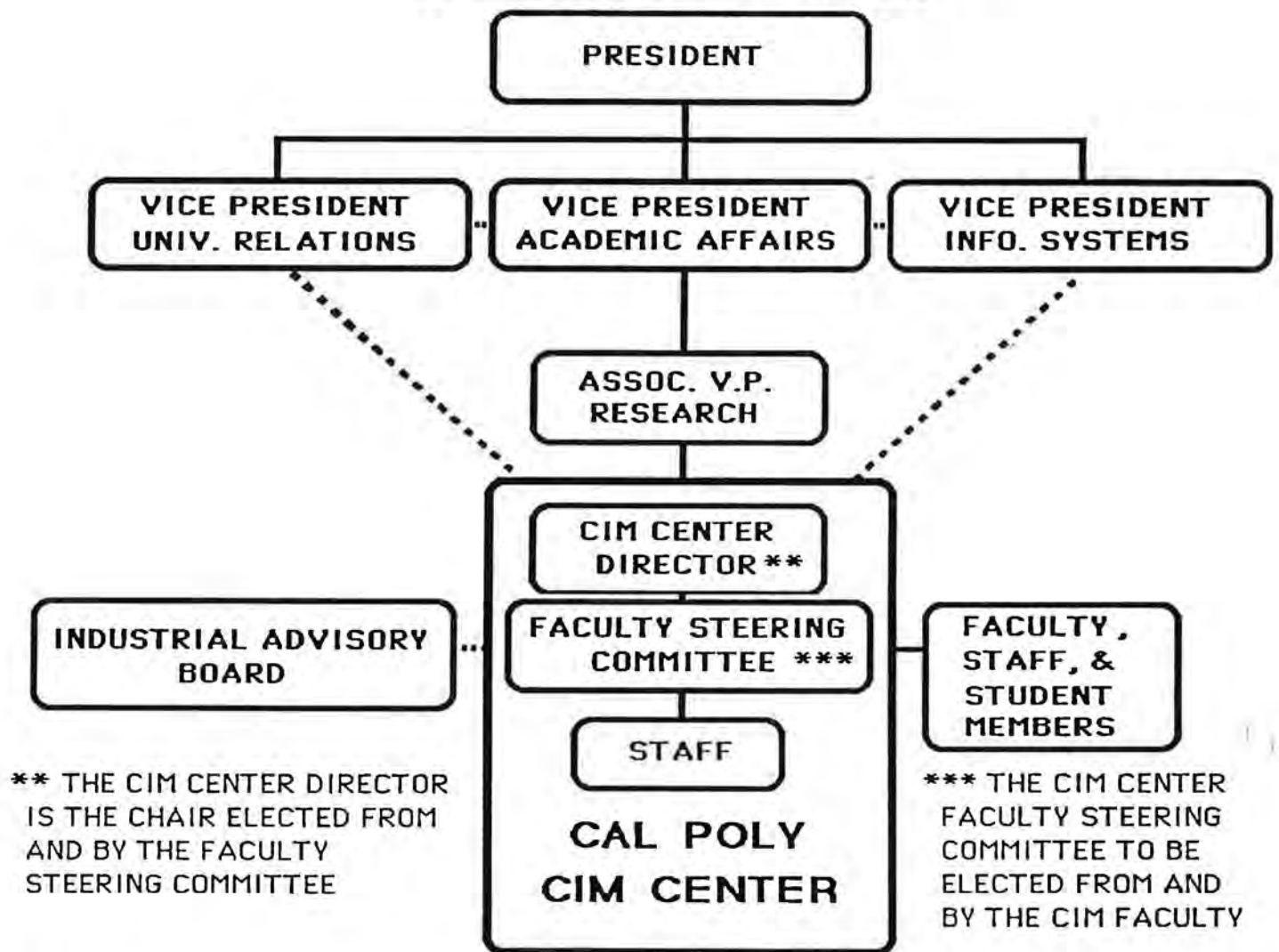
All support for this budget will come from industrial subscription, gifts, and loans from industry. No state funds are being requested.

### **FACILITIES**

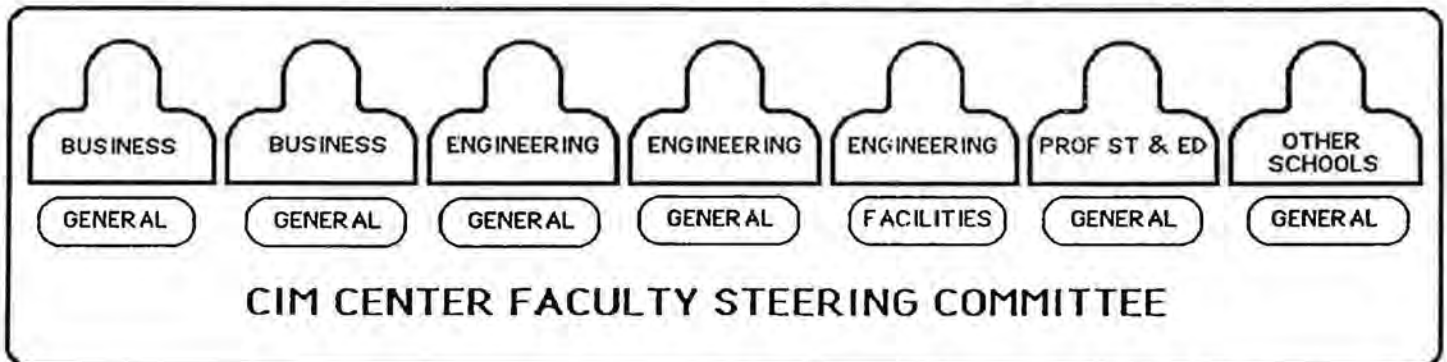
Computing and laboratory facilities exist within academic departments and within Information Systems. The distributed environment includes computer-aided design laboratories in Mechanical Engineering, Civil and Environmental Engineering, Engineering Technology, and the Computer Aided Productivity Center, manufacturing laboratories in Engineering Technology and Industrial Engineering in the School of Engineering, and Industrial Technology in the School of Professional Studies and Education as well as computing laboratories in the School of Business. The Schools of Agriculture and Architecture and Environmental Design will also be involved. SLONET and other campus communication networks provide the means to link these diffuse facilities together without physical reorganization.

Space needed for sponsored computer-integrated manufacturing projects, as required, could be accommodated within existing facilities. As industrial subscription increases, a new laboratory will be established.

# CIM CENTER ORGANIZATION



\*\*\*\* DOTTED LINES INDICATE CHANNELS OF COMMUNICATION ONLY AND NOT DIRECT ADMINISTRATIVE RESPONSIBILITY



## **BYLAWS OF THE CIM CENTER**

California Polytechnic State University, San Luis Obispo

These bylaws are applicable within the authorization established by the Board of Trustees of The California State University and the California Polytechnic State University, San Luis Obispo.

### **ARTICLE I - NAME**

The name of this organization shall be the Computer-Integrated Manufacturing Center (CIM Center), referred to in these bylaws as the CIM Center or the Center.

### **ARTICLE II - PURPOSE AND POLICIES**

#### **Section 1 - Purpose**

The primary purpose of the CIM Center is to support the multi-disciplinary needs for CIM education and applied research. The Center will foster interaction between the University and industry, consistent with the overall goals of Cal Poly.

Center members are faculty, adjunct faculty, staff, and students who have a declared interest in CIM related activities at Cal Poly.

The CIM Center will serve as a vehicle for securing industrial sponsorship and support to sustain CIM oriented projects at the Center.

#### **Section 2 - Policies**

The policies of this Center shall be in harmony with the policies of The California State University, the California Polytechnic State University, San Luis Obispo, and the California Polytechnic State University Foundation.

#### **Section 3 - Distribution of Excess Funds**

For sponsored CIM projects, unallocated excess indirect costs will be returned to the project's Principal Investigator and Administrative Unit as designated in the project approval document and in accordance with university policies.

#### **Section 4 - Dissolution**

In the event the Center is dissolved, financial assets remaining after payment of or provision of, all debts and liabilities shall be distributed to the California Polytechnic State University Foundation in trust for Cal Poly.

## ARTICLE III - MEMBERSHIP

### Section 1 - Class of Membership

Only faculty, adjunct faculty, students, and staff of the California Polytechnic State University, San Luis Obispo, shall be members of the Center. The membership is defined as follows:

a. - Faculty and Adjunct Faculty

*not used on this campus*

Faculty members are those persons appointed by the University to faculty rank.

b. - Staff

Staff members are those persons serving the University in either an instructional or non-instructional capacity who do not hold faculty rank.

c. - Student

Student members are those persons engaged in study at the University on either a full-time or part-time basis.

### Section 2 - Admission to Membership

a. - Eligibility

Membership is available to all interested faculty, students, and staff. Voting rights are restricted to faculty members.

b. - Acknowledgement of Membership

The Director of the Center shall maintain the current list of members.

### Section 3 - Term of Membership

Membership shall be renewable every two years by written request of the member.

### Section 4 - Fees and Dues

There shall be no fees or dues paid by members.

### Section 5 - Role of Members

Members are encouraged to participate in the research and development activities of the Center. They may propose programs to be implemented by the Center. These programs will receive Center support as necessary and possible.



Members are expected to provide support to the programs of the Center and assist the Director in program development.

#### **ARTICLE IV - ADMINISTRATION**

##### **Section 1 - Director**

The Center will be administered by a Director who will be the elected Chair of the CIM Center Faculty Steering Committee. The term of election is two (2) years.

The Director will serve on a release-time or overload basis, subject to the availability of funds. The amount of time will vary from quarter to quarter and will depend on available funds and anticipated work load for the particular quarter. The Director will report to the Associate Vice President for Research, Faculty Development, and Graduate Studies and will have the prime responsibility for the development and direction of the Center.

##### **Section 2 - Annual Report**

By May 31st, the Director will submit an Annual Report to the Associate Vice President for Research, Faculty Development, and Graduate Studies with copies to the Vice President for Academic Affairs, the Vice President for University Relations, the Vice President for Information Systems, the Deans of the Schools, the Industrial Advisory Board, and the members of the Center.

The report will include a summary of the past year's activities, a plan of the proposed Center activities for the following year, a proposed budget for the next fiscal year, and a financial statement and balance sheet. Included as an appendix will be a collection of abstracts of completed, in progress, and proposed projects.

The director will meet at least annually with the Deans' Council to report on progress and discuss issues and policies with respect to the CIM Center's activities.

#### **ARTICLE V - STEERING COMMITTEE**

##### **Section 1 - CIM Center Faculty Steering Committee**

There shall be a CIM Center Faculty Steering Committee of seven members. The committee will elect from its membership a Chair who will serve as Director of the CIM Center. The Chair serves at the pleasure of the committee and will vote only in the case of a tie.

##### **Section 2 - Election of the CIM Center Faculty Steering Committee**

Membership of the CIM Center Faculty Steering Committee is apportioned as follows: One general member from the School of Professional Studies and Education, two general members from the School of Business, two general members from the School of

Engineering, a facilities coordinator member from the School of Engineering, and one general member from the other schools. All current members of the CIM Center are entitled to nominate and vote for representatives from their own school, except that CIM Center members from the Schools of Agriculture, Architecture and Environmental Design, Liberal Arts, and Science and Mathematics are entitled to nominate and vote for the one representative from their schools. The term of election is two (2) years.

### Section 3 - Meetings

The CIM Center Faculty Steering Committee will meet at least quarterly to review Center programs and to set the policies of the Center. The Committee may elect to meet for special purposes at any other times upon agreement of a majority of members or by request of the Director.

### Section 4 - Number Constituting a Quorum

Five members shall constitute a quorum.

## **ARTICLE VI - INDUSTRIAL ASSOCIATION**

### Section 1 - Industrial Advisory Board

An Industrial Advisory Board will be established, with membership limited to selected persons who are senior executives with companies that are supporting the activities of the Center through major grants and contracts. Members will be nominated by the CIM Center Faculty Steering Committee and recommended by the Director to the President for appointment for a three (3) year period.

### Section 2 - Industrial Associates

A larger group of industrial personnel will be associated with the Center via involvement with the Center's research and development activities, short courses, conferences, and other activities. Any participation or expression of interest from an off campus person will be cause for inclusion in the Center's list of Industrial Associates.

## **ARTICLE VII - FISCAL POLICIES**

### Section 1 - Fiscal Year

The fiscal year shall correspond to that of the Cal Poly Foundation.

### Section 2 - Accounts and Audit

The books and accounts of the Center shall be kept by the Cal Poly Foundation in accordance with sound accounting practices, and shall be audited annually in



accordance with Foundation policies.

### Section 3 - Funding

Funding for the Center shall come from privately solicited sources, gifts, grants, overhead sharings, industrial membership fees, and fees from Center generated short courses, conferences, and publications.

## **ARTICLE VII - AMENDMENTS**

The Bylaws may be amended by a two thirds majority of the CIM Center members entitled to vote, subject to the approval of the President. Each member shall receive an advanced notification of the proposed amendment.

## RESOLUTION ON MENTORING PROGRAM

### BACKGROUND STATEMENT

As recommended in the July 1988 CSU Task Force report, "The Recruitment and Retention of a High Quality Faculty":

*It is the policy of the Board of Trustees to employ a faculty of the highest quality which increasingly represents and reflects the ethnic and cultural diversity of the state. The goal and the commitment of the CSU are not new, but additional strategies and effort are needed as affirmative action hiring becomes more difficult.*

Statistics show that the percentage of full-time female faculty at Cal Poly (11.1% as of 1988) lags seriously behind that of the CSU system as a whole (25% as of 1987).<sup>1</sup> Historically, Cal Poly has not been highly successful in increasing the percentage of women faculty. From 1975 to 1985, the percentage of tenure track women increased for 13 to 16%, only 4% in 10 years.<sup>2</sup>

As faculty recruitment becomes more difficult, faculty retention becomes critical. Clearly, faculty retention is related to assimilation into campus and community environment. New faculty need professional support from experienced faculty and access to information regarding professional development, promotion, and retention. Women and under-represented groups, in particular, need specific types of support to assure retention; one means of such support is mentoring. The Status of Women Committee urges that the Academic Senate develop a mentoring program to support new faculty.

### RESOLUTION

**WHEREAS,** Retention of excellent and varied faculty is critical to the mission of CPSU, SLO; and

**WHEREAS,** Women faculty and faculty from under-represented groups serve as valuable role models for our changing student body and lend vitality to the institution;

**RESOLVED:** That the Academic Senate endorse the concept of mentoring program to support all new faculty and be it

**RESOLVED:** That the Academic Senate enable the Status of Women Committee to develop a model mentoring program specifically for women.

*resource?*

*if voluntary implementation is possible*

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<sup>1</sup>Profile of CSU Employees, Fall, 1987, prepared by Faculty and Staff Relations, Cal State Chancellor's Office.

<sup>2</sup>President's Cabinet Committee on Faculty Development, Recruitment and Retention, 1986.

## SEXUAL HARASSMENT BROCHURE RESOLUTION

### BACKGROUND STATEMENT:

The Chancellor's Executive Order no. 345 requires each campus of the California State University to maintain a working and learning environment free from sexual harassment for its students, employees and those who apply for student or employee status.

At Cal Poly, the University's Sexual Harassment Policy, as approved by the Academic Senate and signed by President Baker on September 2, 1988, is outlined in Administrative Bulletin 88-5 of the Campus Administrative Manual. The definitions, policies and procedures are written in a formal and legal manner as is necessary for setting administrative policy. This has been an important first step.

The next step, however, is to inform the students and employees of these policies. As stated in the Administrative Bulletin 88-5:

Sexual Harassment violates University policy, seriously threatens the academic environment and is contrary to the law. Program Managers and Department Heads/Chairs are responsible for taking appropriate steps to disseminate this policy statement to students and employees. All faculty, staff, and administrators will be held accountable for compliance with this policy.

While the University Program Managers and Department Heads have the responsibility for disseminating the policy statement, the Committee of the Status of Women would like to help with that charge by preparing and making available a brochure. This brochure would be written for students and employees and would describe policies and procedures in a straightforward and accessible manner.

Therefore, the Status of Women Committee requests that the Academic Senate support our proposal for funding for the purpose of creating and refining, for printing and folding, and for disseminating a brochure on Sexual Harassment to all students/employees of the University.

### RESOLUTION:

Whereas, the sexual harassment policy has been approved by the Academic Senate and signed into executive order by President Baker, and

Whereas, part of the sexual harassment policy is the obligation of the University to disseminate this policy statement to students and employees, and

Whereas, the Status of Women Committee has a viable proposal for such dissemination,

Therefore, be it resolved that the Status of Women Committee receive Academic Senate approval and support for implementing this proposal.

Adopted: \_\_\_\_\_

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

Background Statement:

Indirect Costs recovered on sponsored grants and contracts are intended to cover the cost of conducting the grants and contracts which cannot easily be directly attributed to a specific grant or contract. These costs include the cost of fiscal and departmental administration, grants development, and facilities costs.

Indirect costs have been traditionally used at Cal Poly to cover costs of sponsored programs administration in the Foundation and in the University Business Office and sponsored programs development in the Grants Development Office. Indirect costs remaining after these costs have been met have been distributed according to a formula that sends 50% to the Academic Research Committee for CARE grants, 40% to the department responsible for the award to assist in the continued development of that grant and similar ones, and 10% to the principal investigator for his or her professional development. This formula was most recently reviewed by the Academic Senate and revised in 1987.

Grants are normally conducted in campus facilities which are currently supported by the instructional program. A faculty member may use his or her own office, or a portion of a laboratory when it is not used for a classroom activity. As such, the research activity may encounter only minimal problems in getting set up.

The Applied Research and Development Facility and Activities (ARDF), a unit of the School of Engineering located in Building 04 (the Hangar Annex), is a unit which has no ongoing instructional program to use as a base for the development and maintenance of its research facilities. That is, when the departments located there moved into Building 13, the new engineering building, they stripped Building 04 of all of its useful appurtenances to move their instructional programs to the new building, and left behind what is now essentially a warehouse.

That building has been made available to the School of Engineering as an applied research and development facility after a three year attempt to get it going as a university-wide research facility failed. For it to succeed, it needs funds to renovate and install equipment which can be used for research grants and contracts.



The ARDFA has an opportunity to acquire a Molecular Beam Epitaxy System if it can find \$50,000 to install it and make it operational. The President in a letter to the Director of the Cal Poly Foundation asked for an infusion of those funds to set up the laboratory. Funds would be repaid from indirect costs recovered by projects conducted in the laboratory, from the 40% of unallocated indirect costs normally available to the department that initiated the project, as described in the recent revision of CAM 543.

AS-\_\_\_\_-88/\_\_\_\_

RESOLUTION ON

MOLECULAR BEAM EPITAXY SYSTEM

- WHEREAS, Indirect cost recovery is intended to assist the university in the development and maintenance of research facilities; and
- WHEREAS, The molecular beam epitaxy system is a major research facility which must be installed for research grants and contracts to be operated on it; and
- WHEREAS, The current overhead sharing plan does not allow for advances to a grant or a contract to assist in the development of facilities; and
- WHEREAS, An advance of funds from the Foundation would make it possible for the researchers to install the MBES equipment and create a research capability the university would not otherwise have; and
- WHEREAS, The current guidelines for CARE grants recognize the development of research facilities as an important method for encouraging research on campus; and
- WHEREAS, A CARE grant would not be large enough to cover the cost of installing the MBES; and
- WHEREAS, President Baker has approved the request to the Foundation for an infusion of the funds necessary to make the MBES operational, to be repaid by the administrative unit from its 40% share available through the normal process described in CAM 543; therefore, be it
- RESOLVED, That the Academic Senate concurs with the President's initiative in seeking advance funding from the Foundation for the installation of the MBES; ~~and be it further~~ *and be it*

RESOLVED, That the Academic Senate will study the needs of research facilities that are not assisted by the instructional program and directs the Research Committee develop a policy for assisting such units in their development.