# CALIFORNIA POLYTECHNIC STATE UNIVERSITY 

San Luis Obispo, California 93407

## academic senate

## Academic Senate Agenda Tuesday. May 23, 1989 <br> 3:00-5:00 p.m. <br> UU 220

I. Minutes:

Approval of the May 2, 1989 Minutes of the Academic Senate (pp, 2-4).
II. Communication(s)/Announcement(s):

A. Reading Materials (p.5)
B. Status of Academic Senate Chairs Emeriti/DTARecipients Plaques

III Reports:
A. President
B. Academic Affairs Office
C. Statewide Senators
D. Introduction of new senators and caucus chairs
IV. Consent Agenda:
V. Business Item(s):
A. Election of Academic Senate Officers-Johnson, Chair of the Elections Committee.
B. Resolution on Bicycle Use on Campus, Second Reading (pp, 6-10).
C. Resolution on Skateboard Use on Campus, Second Reading (p. 11).
D. Proposal for Joint MBA/MS Degree-Bailey, Chair of the Curriculum Committee, Second Reading (pp. 12-18).
E. Resolution on Foreign Language Exit Requirement-Terry, Chair of the Instruction Committee, Second Reading (pp. 19-20).
F. Resolution on the Academic Calendar-Terry, Chair of the Instruction Committee, Second Reading (pp. 21-23).
G. Resolution on Accreditation Guidelines-Terry, Chair of the Instruction Committee, Second Reading (pp. 24-31),
H. Resolution on Department Name Change: Computer Science DepartmentConnely, Chair of the CSc Department Curriculum Committee, Second Reading (pp. 32-37).
I. Resolution to Establish the CIM Center-Carnegie, Chair of the Agricultural Engineering Department, First Reading (pp. 38-50).
VI. Discussion Item(s):
VII. Adjournment: time certain $4: 55 \mathrm{pm}$

# Materials Available for Reading in the Academic Senate Office (F0B 25H) Spring Quarter 1988-1989 

## (New reading materials highlighted in bold)

1/10/89 Transfer: Key to the Master Plan (CSU Board of Trustees Committee on Educational Policy)

3/9/89 Status of Senate Resolutions (Academic Senate CSU)
March '89 The Tangled Thicket--Sham Academic Degrees in California and the Problem of State Regulation (Western College Association)

Adopted: $\qquad$

## ACADEMIC SENATE

OF
CALIFORNIA POLYTECHNICSTATE UNIVERSITY
San Luis Obispo, California

AS--89/

## RESOLUTION ON

 BICYCLE USE ON CAMPUSRESOLVED: That the Academic Senate endorse the attached report of the Public Safety Advisory Committee; and be it further

RESOLVED: That the use of bicycles should be prohibited within the inner core of the California Polytechnic State University campus which is defined as the area of the campus bound by North Perimeter and South Perimeter Streets/ Roads (commonly identified as outer perimeter roads).

Proposed By:
Executive Committee
April 18, 1989
Revised May 2, 1989

## BICYCLE AND SKATEBOARD USE ON ©AMPUS

## INTRODUCTION

The problems of bicycles and skateboards were highlighted when each campus president receive BA-88-06 from Vice Chancellor Dale Hanner. The content of the document centered around the concern for potential legal liability when campuses do not enforce adequate regulations to control bicycle and skateboard use. It was requested that each campus review individual bicycle and skateboard regulations and procedures to control the potential for accidents. An accident at Cal State Chico involving a bicycle and pedestrian (faculty'member) resulted in permanent injury to the pedestrian and subsequent legal action. Accidents involving skateboards have also been publicized system-wide.

PROBLEM AT CAL POLY - BACKGROUND

## SKATEBOARDS

The present "Skateboard Policy" at Cal Poly is as follows:
"The use of skateboards, roller skates, coasters or similar devices on the California Polytechnic State University campus is prohibited:
A. In any building
B. On any roadway
C. In any bicycle lane
D. Anywhere in the academic core, which is defined as the area bound by North Perimeter Road around South Perimeter Road to College Avenue, the west boundary of which is described as College Avenue, north to and including the walkways which line College Avenue with North Perimeter Road. This area shall include both sidewalks and bicycle lanes of the boundary streets. The prohibition of Section D applies only from 2400 hours on Sunday through 2400 hours on Friday and during special campus events occurring on weekends such as Poly Royal and homecoming."

## Exemption

Special events involving skateboards, roller skates, coasters or similar devices which have been authorized by the Student Life and Activities and cleared through the university police office are exemoted from the above prohibition.

## THE PROBLEM

Cal Poly has become a very popular area for skateboarders, in particular, 'to offcampus youngsters. Strict regulations in the City of San Luis Obispo have highlighted the campus as a skateboard area and even more in recent years. The regulations are very difficult for many to understand as only a portion of the campus is restricted. Many persons who are stopped for violation of the regulations state that they were unaware that they were operating their skateboard in a restricted area.

Calls to Public Safety are continuous, especially during the summer and immediately following the end of the public school days. Most calls are in the area of the Student Union/Administration buildings. Near misses of pedestrians are the majority of calls.

Attempts to Solve the Problem
Public Safety police officers respond to all calls. First offenders are generally provided with educational information, i.e., regulations, dangers, consequences of future contact, etc. Second offenders are most times cited and in some cases, the skateboard is confiscated. Release of the skateboard is to the parent. Special enforcement techniques have been utilized to solve the problem.

Violators are most difficult to apprehend as they are very mobile, both on a skateboard and on foot. At the present time, it is the procedure of Public Safety to attempt to stop all persons operating a skateboard in the restricted areas. This is time consuming and from experience, not effective.

## Public Safety Advisory Committee - Health and Safety Subcommittee - ParkingTraffic Subcommittee

The problem of skateboards on campus has been discussed numerous times at Health and Safety Subcommittee meetings. Near misses have been reported to members. The consensus over the past few years has been to prohibit the use of skateboards on campus. The issue has also been discussed at Parking-Traffic Subcommittee meetings the past several years. At the most recent meeting of the Subcommittee (March, 1988), a motion was made and seconded that skateboards should be eliminated from the campus; the motion passed.

RECOMMENDATION
That the use of skateboards on the campus of California Polytechnic State University by prohibited. This would eliminate the present regulations.

## Impact of Approval of Recommendation

1. A consistent regulation. Public Safety will not have to explain regulations, i.e., areas where skateboards are permissible, etc.
2. Easier regulation to enforce.
3. Positive action in preventing injury to pedestrians and skateboarders.
4. Reduce the possibility of legal action against the University.

## BICYCLES

At the present time, bicycles are allowed throughout the campus. Exceptions are on sidewalks and the provision that bicycle lanes will be used. In that bicycles are defined as a vehicle, sections of the vehicle code can be enforced, i.e., stopping at stop signs, etc.

## THE PROBLEM

The problem is that the operators of bicycles fail to abide by the laws. On campus the main violations are failure to stop for stop signs, speed and failure to utilize bike lanes, i.e., riding on sidewalks and in roadways. The most serious problem occurs on the Inner Perimeter Road, easterly-westerly, where bicycles travel downhill attaining unreasonable rates of speed. This area is impacted with pedestrian traffic which results in a serious safety problem.

Attempts to Solve the Problem - Duter Perimeter Road
For several years the Public Safety Department has operated a student bicycle patrol whose main goal is to present safety awareness programs to the bicyclist. Safety issues are discussed with emphasis on obeying traffic regulations.

At least. twice each year (past two years) special enforcement programs have been administered by the Police Section. After advertising regarding times and places of enforcement, citations are issued to violators. Approximately 75 citations were issued each day of the program.

## Inner Perimeter Road

The bike patrol has concentrated on this location since its inception. Members have gone to the point of walking on the roadway, keeping pedestrians out of the bike lanes and bicyclists off the walkways. Enforcement is most difficult as police vehicles cannot be used. Lack of police manpower has limited foot patrol in the area, Inner Perimeter Road presents the biggest safety problem as it relates to possible injury to both pedestrians and bicyclists.

## Public Safety Advisory Committee - Health and Safety Subcomittee - ParkingTraffic Subcormittee

The potential safety problems of bicyclists operating on the Inner Perimeter Road has been an issue discussed by the Health and Safety Subcommittee for years. In 1988, the Committee membership voted to send a letter to the Chairperson of the Parking-Traffic Subcommittee voicing this concern and requesting that the issue be studied and recommendations be made to solve the problem.

The issue has been a constant discussion item at the Parking-Traffic Subcommittee meetings. At the March, 1988, meeting a motion was made and seconded to recommend that bicycle riding be restricted within the campus core. The specific motion was that, "the riding of bicycles within the Inner Core of the campus as defined by the Outer Perimeter Road be restricted to $V$ ia Carta in a north/south direction;" the motion passed.

## RECOMMENDATION

That the riding of bicycles within the Inner core of the campus is defined by the Outer Perimeter Road be restricted to Via Carta in a north/south direction. It is further recommended that the appropriate consultation with student and faculty organizations take place during the Spring Quarter 1989 with anticipated implementation of the final resolution to begin during the summer Quarter 1989 with the emphasis in the Fall Quarter of the 1989/90 academic year.

Impact of Approval of Recommendation

1. Reduction, with the goal of elimination, of safety hazards which could result in serious injury to pedestrians and bicyclists.
2. Possible negative impact by a segment of the campus population.
3. Adherence to B.A. 88-06.
4. Easier for Public Safety to enforce regulations.

CONCLUSION
This report has outlined the problems of the use of skateboards on campus and the operation of bicycles on the Inner Perimeter of campus. It has also listed recommendations agreed upon by members of the Public Safety Advisory Committee. It is felt that all alternatives to solve a problem have been attempted and strong actions are now needed.

Attachments

Adopted: $\qquad$

## ACADEMIC SENATE

OF
CALIFORNIA POLYTECHNIC STATE UNIVERSITY
San Luis Obispo, California

AS-___89/__
RESOLUTION ON SKATEBOARD USE ON CAMPUS

RESOLVED: That the Academic Senate endorse the report of the Public Safety Advisory Committee entitled "Bicycle and Skateboard Use on Campus"; and be it further

RESOLVED: That the use of skateboards should be prohibited within the inner core of the California Polytechnic State University campus which is defined as the area of the campus bound by North Perimeter and South Perimeter Streets/ Roads (commonly identified as outer perimeter roads).

Proposed By:
Executive Committee
April 18, 1989
Revised May 2, 1989

# RECEIVED 

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## Academic Senate

# California Polytechnic State University 

San Luis Obispe.CA 93407
Memorandum

To: Charles T. Andrews, Chair Academic Senate

Date: February 22. 1989
File No:
Copies: William Rife
Peter Lee

From: C.A. (Tina) Bailey, Chair car Academic Senate Curriculum Committee

Subject: Proposal for Joint MBA/MS Degree
I would like to forward to the floor of the Academic Senate the attached proposal for a joint MBA/MS degree program from the schools of Business and Engineering. As the proposal was approved in concept by the 1987-88 Academic Senate Curriculum Committee. there is no need for the current committee to reconsider the material which has been modified in its displays and editorially but not in substance,

MBA/MS Engineering with Specialization in Engineering Management
1989-90
Date: March 9, 1989
I. DEGREE PROGRAM PROPOSALS $\qquad$

## A. Degree Program

1. Joint MBA/MS Engineering with Specialization in Engineering Management (see attached)

## B. Minors

1. None

## C. Concentrations or Specializations

1. None

## II. NEW COURSES

$\qquad$

## Graduate School of Business

1. GSB 579 Manufacturing Strategy (4) 4 sem C5
2. GSB 582 High-Technology Marketing (4) 4 sem C5
3. GSB 590 Seminar in Sociotechnical Systems (4) 4 sem C5

Industrial Engineering
I. IE 556 Technological Project Management (4) 4 sem C5
2. IE 557 Technological Assessment and Planning (4) 4 sem C5
3. IE 558 Engineering Decision Making (4) 3 lec, 1 lab C4/16
4. IE 559 Engineering Research and Development (4) 4 sem C5

## III. DELETED COURSES

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1. None

## IV. CHANGES TO EXISTING COURSES

$\qquad$

## Number. Title, Unit Value, C/S Number. Description and Prerequisite Changes

1. None
V. GENERAL EDUCATION AND BREADTH COURSES $\qquad$
2. None

## VI. CURRICULUM CHANGES

$\qquad$

1. None
$C C=$ Academic Senate Curriculum Committee
AS = Academic Senate
VP $=$ Vice President for Academic Affairs
$\mathrm{A}^{*}=$ approved June 1988

Cal Poly Joint Degree Curriculum for MBA/MS in Engineering
With
Specialization in Engineering Management ${ }^{1}$ FIRST YEAR Units
Fall. ..... 15

GSB 511 Financial Accounting (4)
GSB 513 Organizations and Management (4)
GSB 514 Legal Aspects of Management and
the Market System(4)
${ }^{2}$ Technical Elective in Specialization (3)
Winter
16
GSB 521 Accounting for Management Planning and Control (4)
GSB 523 Managerial Economics (4)
GSB 524 Marketing Management (4)
IE 557 Technological Assessment and Planning (4) (new)
spring. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
GSB 531 Managerial Finance (4)
3GSB 532 Quantitative Business Analysis II (4)
GSB 533 Aggregate Economic Analysis and Policy (4)
4GSB 534 Operations Management (4)
Summer. . . . . . . . ...................................................................... . . . . 4
GSB 598 Graduate Internship in Business (4)

## SECOND YEAR

Fall. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
GSB 541 Organizational Behavior (4)
GSB 542 Marketing Research and Planning (4)
5GSB 543 Information Systems for Decision Support (4)
IE 545 Advanced Topics in Simulation (3)
Winter................................................................................. 16
GSB 551 Management in an International Environment (4)
GSB 552 Financial Analysis and Planning
IE 555 Computer Integrated Manufacturing (4)
IE 558 Engineering Decision Making (4) (new)
spring...................................................................................... 15
GSB 561 Business, Government and Society (4)
GSB 562 Business Strategy and Policy (4)
IE 556 Technological Project Management (4) (new)
2 Technical Elective in Specialization (3)
${ }^{6}$ Summer.
Business Elective (4)
Business Elective (4)
see footnotes on next page.

Curriculum for MBA/MS in Engineering with Specialization in Engineering Management (continued)

Footnotes
I. Interdisciplinary program requiring admittance to both the School of Engineering and the School of Business, and concurrent enrollment towards M.B.A. and M.S. in Engineering Degrees each with Specialization in Engineering Management.
2. Technical Elective to be selected from electives approved for Engineering Management Specialization which include:

IE 470 Selected Advanced Topics (1-3)
IE 500 Individual Study (1-3)
IE 541 Advanced Operations Research (3)
IE 543 Advanced Human Factors (4)
IE 544 Advanced Topics in Engineering Economy (3)
IE 559 Engineering Research and Development (4)
CSC 420 Artificial Intelligence (3)
CSC 421 Knowledge Based Systems (3) CSC 444 Health Information Systems
(3)
3. Waived if satisfied prior to admission by IE 304 (Operations Research) or IE 305 (Operations Research II) or equivalent course. If waived, four (4) less units in total are required and an elective normally taken in last summer could be substituted.
4. Waived if satisfied prior to admission by appropriate IE 410 (Inventory Control Systems) or IE 411 (Production Systems Analysis) or equivalent course. If waived, four (4) less units in total are required and an elective normally taken in last summer could be substituted.
5. Not required for students who have taken an equivalent course in their undergraduate program. However, replacement course must be taken.
6. May possibly be taken earlier if other courses waived. Business elective courses include GSB 579, GSB 582, and GSB 590.
7. Total number of units could be reduced if previous coursework taken justifies waiver of some required courses (e.g., see footnotes 3 and 4 above).

DEW

April 24, 1989

| To: | Charles Andrews, Chair <br>  <br> Academic Senate |
| :--- | :--- |
|  | John C. Rogers, Chair |
|  | Academic Senate Budget Committee |

The Academic Senate Budget Comittee has reviewed the summary information supplied from the Department of Industrial Engineering and the School of Business. Both the School of Business and the Department of Engineering have assumed that this new concentration will require no additional sections of existing courses during the initial startup. The School of Buginess will add three new courses and the Department of Engineering will add four new courses. Thus leading to a tatal increase of 28 WTU's.

Attached is a summary spread sheet prepared by the Acadenic Senate Budget Committee and an explanation of faculty resources needed from the Schoal of Business.

MBA/MB JOINT DEGREE BETWEEN THE SCHOOL
OF BUSINESS AND THE SCHOOL OF ENGINEERING

| 1. IE | $\frac{\text { WTU }}{+16} \quad$IE assumes no additional sections of exiating <br> courses are needed. |
| :--- | :--- | :--- |
| 2 6SB | +12 School of business assumes no additional sections |
| of existing courses are needed. |  |

MBA/MSEngr JOINT DEGREE PROPOSAL APPENDIX G: Faculty resources needed to implement and sustain the proposed concentration or specialization.
I. Start-up phase: Assuming that initially, MBA/MSEngr students will be accommodated in existing sections of currently offered courses:

Required new courses:

$$
\begin{gathered}
\text { BUS: } 3 @ 4 \text { credits }=12 \text { credits/year } \\
\text { ENGR: } 4 \text { @ } 4 \text { credits }=16 \text { credits/year } \\
\text { Total new WTU: } 30 \text { credits/year }
\end{gathered}
$$

Total additional faculty $=.80$ position
All the new GSB courses will be offered as electives in the "regular" MBA program, and thus will not require incremental faculty; it is assumed that at least 2 of the IE courses will be offered as electives in the MSIE program. Thus, the incremental total faculty would be more like:

Net new credits taught: 8 credits/year
Inasmuch as the MBA program generates over $125 \%$ of the positions required to actually teach the courses, these courses could be taught from the "dean's reserve," which is currently used largely for lab assistants, graduate assistants, and faculty assigned time. After two years, the additional credits taught result in additional faculty positions earned by the respective schools, and the program will become "selfsupporting," in terms of faculty needs.
II.

Full enrollment: Assumed to be 50 new students admitted to the program each year, or two sections of each course per year.

Total WTU's taught: 2 sections x 4 credits x 27 courses $=216$ WTU's over two years
Total WTU"s per year $+216 / 2=108 /$ year
Total new faculty needed $=108 / 36=3.0$ positions
The program will be expanded as demand grows and faculty positions are generated, so that the 3 new positions will not be needed all at once.

## ACADEMIC SENATE <br> OF

## CALIFORNIA POLYTECHNICSTATE UNIVERSITY <br> San Luis Obispo, California

Background statement: In 1983-1984 the CSU Task Force Report on Foreign Language Requirement recommended that the system establish a graduation requirement equilvalent to two semesters of lower division foreign language instruction, to be applied to students in all disciplines.

The ASI Student Senate of California Polytechnic University, San Luis Obispo, opposed the requirement in Resolution \#84-08 (November 30, 1983); the California Polytechnic State University, San Luis Obispo, Academic Senate likewise opposed the requirement in its Resolution AS-155-84/IC (January 31, 1984). The requirement was not implemented.

On April 15, 1988, the CSU Foreign Language Council approved a proposed new Foreign Language Baccalaureate Requirement involving an exit examination, not specifically course work. The FLC agreed to await the release of a "needs assessment" to be completed by the Office of the Chancellor before submitting the new proposal to the CSU Academic Senate. On November 17, 1988, the FLC-CSU unanimously passed the motion: "The FLC-CSU shall undertake immediately a campaign to cause the CSU to adopt and implement the proposed CSU Foreign Language Baccalaureate Requirement adopted unanimously by the FLC at its meeting in Sacramento on April 15, 1988."

The FLC-CSU believes that the need for a foreign language exit requirement has become more acute in the interim; that the CSU is at a disadvantage in Intersegmental Committee deliberations on foreign languages in view of the absence of a foreign language requirement; and further, that the absence of a foreign language exit requirement is a serious anomaly in view of the recently-implemented CSU foreign language admission requirement.

A Committee on Testing was established to accelerate the dissemination of information about competency-based examinations, as well as the training of CSU foreign language faculty in such procedures. A proposed implementation schedule for the proposed requirement would hold entering freshmen to the requirement in 1992; freshmen and sophomores in 1993; freshmen, sophomores and juniors in 1994, and all CSU students in 1995. Such phasing-in would additionally permit foreign language departments to prepare for the implementation of the requirement and to develop methods in consultation with community colleges for assisting upper-division transfer students.

## AS-__-89/ <br> RESOLUTION ON FOREIGN LANGUAGE EXIT REQUIREMENT

WHEREAS, The needs assessment to be performed by the Office of the Chancellor has not yet been completed; and

WHEREAS, Proficiency examinations necessarily lead to additional course work in the prescribed subject for most students; and

WHEREAS, Curricula on this campus are typically heavily encumbered; and

WHEREAS. Proficiency examinations in foreign languages necessarily focus on mechanical aspects of the language rather than the larger values such as cultural knowledge and sensitivity; and

WHEREAS Proficiency examinations in foreign languages are typically of a low and perhaps insignificant level or require considerable course work to pass (which would pose enormous quantitative and qualitative problems for our curriculum) and

WHEREAS, Justifiable emphases on foreign language can be accommodated via general education requirements; and

WHEREAS, Many programs on this campus are impacted and thousands of otherwise qualified students are denied admission to this University, and such a proficiency examination would impede the flow of students through our programs; therefore, be it

RESOLVED: That the Academic Senate of California Polytechnic State University strongly disfavor the addition of a proficiency requirement in foreign language for graduation and that the statewide Academic Senators of California Polytechnic State University be strongly urged to oppose such a requirement at the system level.

Proposed By:
Instruction Committee
March 17, 1989
Vote: 7-1~1
$\qquad$

## ACADEMIC SENATE

OF
CALIFORNIA POLYTECHNICSTATE UNIVERSITY
San Luis Obispo, California

Background statement: At present the University is operating on an approved Academic Calendar extending through the end of 1990 . Forth coming catalog deadlines make it timely to begin campus-wide consultation on the calendar for the next catalog issue, 1990-1992. In accordance with CAM 481, the Vice President for Academic Affairs has proposed a calendar to the President for approval following appropriate consultation including the Academic Deans' Council, Academic Senate, Student Senate, Student Affairs Council, Foundation, and Dean of Students.

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\mathrm{AS}-\quad-89 /
$$

## RESOLUTION ON

 ACADEMIC CALENDARSWHEREAS, The proposed Academic Calendars for 1990-1991 and 1991-1992 conform to the guidelines of the document "Academic Calendar Norms and Definitions"; therefore, be it

RESOLVED: That the Academic Senate of the California Polytechnic State University at San Luis Obispo, California approve the proposed Academic Calendars for 1990-1991 and for 1991-1992.

Proposed By:
Instruction Committee
April 13, 1989
Approved: 8-0-0

## acadenic Calemdar 1990-91



SEPTEHBER 10
SEPTEMEER 17
SEPTEMEER 28
OCTOBER
NOVEMBER 2 NOV EMBER 12 nov еня еа 21-25 nov ember 30
december 3-7
december a

## DECEMBER $9-7$ JANUARY 6

JANUARY 7
JAHUARY 18
JANUARY 21
JANUARY 22
JERRUARY 18
FEGRUARY 26
HARCH 15
HARCH 18-22
MARCH $23-31$

APRIL 1

| APGIL 12 | FRIDAY <br> APRIL 15 |
| :--- | :--- |
| MANDAY 17 | FRIDAY |
| MAY 27 | MOMDAY |
| JUNE | FRIDAY |
| JUNE 10-14 | MONDAY-FRIDAY |
| JUAE 15 | SATURDAT |
|  |  |
| JUNE 16 | SUNDAY |

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WEDNESDAY
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| TTH Days | 20 | 21 | 20 | 20 |  |
| Total Clasa Days | 48 | 51 | 48 | 49 |  |
| Exams | 4 | 5 | 5 | 5 |  |
| Quarter/Year End | - | 1 | - | 1 |  |
| Acadenic Work Days | 52 | 62 | 53 | 55 |  |

BEGINNING OF UNIVEASITY YEAR
BEGINNING OF SUMNER QUARTER SUMAEE QUARTER CLASSES BEGIM
ACADEMIC HOLIDAT -- INDEPENDENCE DAY
LAST DAY TO DROP CLASSES
LAST DAT TO ADD CLASSES AND LATE REGISTEA
END OF SEVEHTH HEEK
LAST DAY OF CLASSES
FINAL EXAMINATION PERIOD
ACADEAIG HOLIDAY

FALL QUAFTER 1990
BEGINNING FALL QUARTER (FACULTY ONLY)
FALL QUARTER CLASSES BEGIN
LAST DAY TO DROP CLASSES
LAST DAY TO ADD CLASSES ANO LATE REGISTEA
END OF SEVENTH WEEK
ACADEHIC HOLIDAY -- VETERANS' DAY OBSERVANCE
ACADEHIC HOLIDAY -- THANKSGIVIMC
LAST DAY OE CLASSES
final examination period
FALL COHMEIICEMENT
END OF EALL QUARTER
ACADEMIC HOLIDAY

HINTER QUARTER 1991
BEGINNLIG OF WINTER QUARTER
hinter quarter classes begin
LAST DAT TO DROP CLASSES
ACADEMIC HOLIDAY -- MARTIN LUTHER KING, JR, BIRTHDAY ODSERVANCE
LAST DAY TO ADO CLASSES AND LATE REGISTER
ACADEMIC HOLIDAY -- GEORGE HASHINGTON BIRTHDAY OBSERYANCE
END OF SEVENTII WEEK
LaSt day of classes
FInAL EXAMINATION PERIOD
ACADEMIC HOL IDAY
SPRING QUARTER 1991
BEGINNI:GG OF SPRING QUARTER
SPRIMC QUARTER CLASSES BEGIN
LaSt day TO DROP CLASSES
LAST DAY TO ADD CLASSES AND LATE REGISTER
END OF SEVENTH WEEK
ACADEMIC HOLIDAY -- MEMORIAL DAY
LAST DAY OF CLASSES
FINAL EXAMINATION PERIOD
SPAING COMHENCEMENT
END OF SPRING QUARTER
END OF UNIVERSITY YEAR (FACULTY ONLY)
ACADEMIC HOLIDAY

## ACADEWIG CALSTDAK 1991-92

## SUNKER QUARTER 1991

| JUNE 20 | TMURSDAY |
| :---: | :---: |
| JILLY 4 | thursday |
| JUf.Y 5 | FRIDAY |
| JULY 8 | MONDAY |
| JULY 11 | THURSDAY |
| Alugust ${ }^{\text {c }}$ | tifunsday |
| August 27 | TUESDAY |
| AUgust 28-31 | UEDNESDAY SATURDAY |
| AUGUST 31 | SATURDAY |
| SEPTEMEER I- |  |
| SEPTEMAER 15 | SUNDAY-SUNDAY |


| SEPTEMEER 15 | MONDAY |
| :---: | :---: |
| SEPTEMBER 23 | MONDAY |
| OCTOBER 4 | Friday |
| OCTORER 7 | MONDAY |
| OCTOBER 11 | FRIDAY |
| NOVEMBER A | FRIDAY |
| NOVEISER II | monday |
| NOVEMBER 27. DECEMAER | UEDNESDAY. SUNDAY |
| DECEMBER 6 | Priday |
| DECELIBER 9. | MONDAY-ETIDAY |
| DFFCFMAER 1/4 | SATHRNAY |
| DEcEIBER 15 - <br> JANUARY 5 | SUNDAY-SUNDAY |

SEGINNING OF UNIVEASTTY YEAR
EEGINNING OF SUNONER QUARTER
SURER QUARTER CLASSES BEGIN
ACADENIC HOLIOAY ‥ INDEFENDENCE DAY
END OF SECOND URER OF INSTRUCTION--LAST DAY TO DROR A CIJSS
LAST DAY TO ADD A CLASS
LAST DAY TO REGISTER LATE AND PAY LATE REGISIRATION FEE
END OF THIRD HEEK OF INSTRUGTION . . GENSUS DATE
END OF SEVENTH NEER
LAST DAY OF CLASSES
FIMAL EXAMINATION FERIOD
END OF SUMGER QUARTER
ACADEHIC HOL.IDAY
TALL QUARTER 1991
OEGINNING OF EALL QUARTER (FACULTY ONLY)
FALL QUARTER CLASSFS BEGIN
END OF SECOND WEEK OF INSTRUCTION--LAST DAY TO DROP A CLASS
LAST DAY TO ADD A CLASS
LAST DAY TO REGISTER LATE AND PAY LATE REGISTGATIGI FEE
END OF THIPD WFEEK OF INSTRUGTION .. CENSUS DATE:
END OF SEVENTH WFEK OF INSTRUGTION
AGADFAIG HOLTDAY $\cdot$ VETFRANS' MAY
ACADEHIC HOL.IDAY--THANKSGIVING
LAST DAY OF CLASSES
FINAL EXAMINATION PERIOD
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## MINTER QUARTER 1992

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$\qquad$

## ACADEMIC SENATE

OF CALIFORNIA POLYTECHNICSTATE UNIVERSITY San Luis Obispo, California

Background statement: Since 1968, the CSU has had in place a policy advocating and providing budgeting for the accreditation of all academic programs for which officially recognized professional accreditation was available. In the early 1980's, the Committee on Institutional Cooperation (CIC) developed a set of nine principles to guide the accreditation process. These principles are:

1. Evaluation must place its emphasis on the outcome of the educational process.
2. The standards applied in the accreditation process must not discourage experimentation, innovation, or modernization either in teaching methods or in the curriculum itself.
3. Recommendations should be diagnostic, not prescriptive.
4. The accreditation report must explicitly recognize institutional diversity.
5. Accreditation should not encourage the isolation or self-containment of an academic program.
6. The burden of accreditation must be kept as light as possible, both for the institution being accredited and for the accreditation team.
7. The institution being accredited should be consulted as to the composition of the accreditation team and has a right to expect that a majority of team members will be drawn from peer institutions and comparable programs.
8. In the case of professional schools, although there must be a significant in put from the profession itself, the ultimate authority over educational policies must remain firmly in the hands of the academic institutions.
9. The greatest help an accrediting agency can offer to a program is to demand that its educational goals be clearly stated and that the program be reasonably calculated to achieve those goals.

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RESOLUTION ON ACCREDITATION GUIDELINES

WHEREAS, Concern with certain of the processes and policies of particular accrediting agencies has been expressed periodically in meetings of the academic vice presidents, the Executive Council of the CSU Board of Trustees, and elsewhere; and

WHEREAS, The CSU needs to be well-served in its relationships with various accreditation agencies; and

WHEREAS, There is the possibility that different accreditation agencies may operate independently at different institutions, resulting in potential abuses; and

WHEREAS, The CIC statement of principles has been adopted by the Board of Regents of the University of Wisconsin System (March 1987), by the National Association of State Universities and Land Grant Colleges (1986), and by the Cleveland Commission on Higher Education; therefore, be it

## Resolution on Accreditation Guidelines <br> AS--89/

Page Two

RESOLVED: That the Academic Senate of the California Polytechnic State University at San Luis Obispo, California endorse the nine principles enumerated in the CIC Statement of May 14, 1984 and summarized in the background statement above: and be it further

RESOLVED: That the Academic Senate of the California Polytechnic State University at San Luis Obispo, California urge the CSU Academic Senate to recommend to the CSU Board of Trustees and directly urge the CSU Board of Trustees to adopt the CIC principles as system policy for the conduct of accreditation reviews.

Proposed By:
Instruction Committee
April 13, 1989
Approved: 8-0-0

# THE CALIFORNIA STATE UNIVERSITY <br> Office of the Chancellor 400 Golden Shore <br> Long Beach, California 90802-4275 <br> (213) 590-5708 

Code: AAPP 89-15

Date: April 7, 1989
RESPONSE REQUESTED BY: MAY 15, 1989

To: $\quad$ Vice Presidents, Academic Affairs<br>From: $\quad$ Ronald S. Lemos ofs<br>Assistant Vice Chancellor Academic Affairs, Plans \& Programs<br>Subject: $\quad$ Request for Review on Adopting Systemwide Expectations in Accreditation Processes

Since 1968, The Califomia State University has had in place a policy advocating, and providing budgeting for, the accreditation of all academic programs for which officially recognized professional accreditation was available. Such funding supports the explicit costs of accreditation by agencies recognized by the Council on Postsecondary Accreditation.

While Board of Trustee policy strongly supports the goals and merits of professional program accreditation, we have been concerned from time to time with certain of the processes and policies of particular accrediting associations recognized by COPA. These have been discussed periodically in meetings of the Vice Presidents, Academic Affairs and the Executive Council. Most recently, at the September, 1988 meeting of the Academic Vice Presidents, there was discussion on the importance of the accreditation process and the need for the CSU system to be well served in its relationships with the various accreditation agencies. More specifically, discussion focused on the potential for articulating systemwide principles on what the CSU should expect from accreditation agencies. I would like to request that you review the attached document, "Accreditation: A Statement of Principles" developed by the Committee on Institutional Cooperation (CIC) and advise this office on whether these principles should be adopted for the CSU.

The CIC document was developed in the early 1980s under the leadership of Bryant E. Kearl, Vice Chancellor for Academic Affairs at the University of WisconsinMadison. At the time it was felt that each accreditation agency was operating independently at each university, and questions of abuses were raised. The CIC felt that more institutional control of the accreditation process was needed. By stating what were felt to be reasonable expectations, the CIC universities desired to make accreditation reports more credible and helpful. "Accreditation: A Statement of Principles" was adopted formally by the CIC on March 14, 1984. In March 1987, the principles were adopted by the Board of Regents of the 26 institution University of Wisconsin system. In addition, the National Association of State Universities and Land-Grant Colleges adopted the principles at the 1986 annual meeting and the Cleveland Commission on Higher Education has incorporated the principles into its statement on accreditation.

Adoption of these principles would require a full campus consultative process, prior to an adoption recommendation to the Board of Trustees. If principles are adopted for the CSU, they would be sent to the appropriate accreditation agencies indicating that the principles were now system policy. Each accreditation agency would then be invited to provide written responses to the principles. Accrediting bodies would be provided with a clear understanding of important parameters under which accreditation reviews would be conducted in the CSU. We would expect responses of willingness to abide by these principles. A modified policy would be submitted to the Board of Trustees advocating program accreditation only if the accrediting association had agreed to subscribe to these principles.

I would like to request that you consult with the appropriate constituencies on your campus and advise us, by May 15, 1989, on whether your campus does or does not support the principles. If your campus supports the principles, I would also like to request your campus' position on the proposed change in Trustee policy. Thank you.

Attachment

## Accreditation: A Statement of Principles

The Committee on Institutional

## Cooperation

990 Grove Street Evanston, IL 60201 312-866-6630

## The Committee on

 Institutional CooperationThe University of Chicago
The University of Illinois
Indiana University
The University of Iowa
Michigan State University
The University of Minnesota
Northwestern University
The Ohio State University
Purdue University
The University of Wisconsin

The Committee on Institutional Cooperation is made up of the chief academic officers of eleven midwestern teaching and research universities: The University of Chicago, the University of Illinois, Indiana University, the University of Iowa, the University of Michigan, Michigan State University, the University of Minnesota, Northwestern University, the Ohio State University, Purdue University, and the University of Wisconsin.

This statement represents the views of the Committee members as approved at their meeting of March 14, 1984. In combination with the more detailed requirements that have been developed over the years by the Council of Postsecondary Accreditation, it is intended to describe the standards that must be met if accreditation is to serve the universities, their students, and the public.

The Committee on Institutional
Cooperation
990 Grove Street
Evanston, IL 60201
312-866-6630

## Accreditation: <br> A Statement of Principles

External reviews of academic programs are a useful and valuable means of protecting quality in higher education. They can generate suggestions for program improvement that are both specific and practical. Often, too, the stimulation they give to institutional self-examination will produce improvements beyond those recommended by the accrediting body. Finally, the process of accreditation is itself a promoter of useful discussion about quality, standards, and performance in higher education.

For all of these reasons, even the strongest universities have an obligation to do their part to make accreditation work. To do so effectively, however, they must be able to argue that the accreditation process is fundamentally sound. They face a painful dilemma when they conclude that a particular accrediting agency has exceeded its competence or is using standards that relate less to quality of education than to disciplinary or professional self-interest. They can, of course, consider the option of withdrawing. Even when that is feasible, it can only be viewed as a last resort. The best universities cannot withdraw from any accreditation process without damaging their credibility and the respect accorded to them by other institutions.

This suggests that every university has some obligation to be frank about its own expectations from accrediting bodies. What standards should the accrediting body itself meet in dealing with the universities it is designed to serve? In connection with any proposed accreditation the CIC universities believe it is appropriate to ask the accrediting agency to indicate its acceptance of or state its reservations in regard to the following principles:

## 1. Evaluation must place tts emphasis on the outcome of the educational process.

Criticisms by accrediting teams directed at procedural or organizational details must be based on reasonable evidence that those details affect the performance of graduates or the quality of education provided to them. Where quantitative standards are cited or advice is offered on the organization of the instructional unit, structure of the curriculum, sequencing of courses, teaching loads, methods of instruction, graduation requirements, and designation of the degree or other credentials conferred, the university has a right to expect evidence of a reasonably direct relationship between what is being recommended and the ability of the program to achieve its goals.
2. The standards applied in the accreditation process must not discourage experimentation, innovation or modernization, either in teaching methods or in the curriculum itself.
An accrediting body can legitimately point out deficiencies it believes will result from a particular innovation. It can ask for assurance that the institution will provide the resources that the innovation will require, and it can insist on some plan of evaluation. What it must not do is impose standards that place obstacles in the way of originality, creativity, or innovation on the part of the faculty or the institution.

## s. Recommendations should be dlagnostic, not prescriptive.

For example, an accrediting agency could properly question whether there is enough effort to evaluate teaching performance, or whether student input on such evaluation is adequate, but it should not try to prescribe a particular form of or approach to evaluation.

## 4. The accreditation report must explicitly recognize institutional diversity.

Every university has its own unique resources, methodologies, special mission, and educational philosophy. In particular, the interplay among graduate education, undergraduate education, research and public service will differ greatly among programs and from one university to another. Each university can expect that accrediting teams will familiarize themselves with its special circumstances and resources and will take them into account in relation to the programs being reviewed.

## 5. Accreditation should not encourage the isolation or self-containment of an academic program.

In larger universities witi substantial program depth, even the most specialized professional school can benefit by drawing upon the library toldings, courses being taught, research in progress, and faculty interests in other schools and colleges. A university can expect an accrediting team to file a report chat shows awareness of these supporting resources and actively encourages their shared use.
> 6. The burden of accreditation must be kept as light as passible, both for the institution being accredited and for the accreditation team.

Size of team and duration of the accreditation visit should be limited to the minimum necessary for a productive review. Data requirements and other advance preparation should also be kept to a minimum, recognizing, however, that encouragement for self-study may be one of the best products of an accreditation review. Finally, there must be a reasonable, fair, and expeditious procedure for questioning conclusions of the accrediting body without elaborate interim or supplementary reviews or reports.
7. The institution being accredited should be consulted as to the compositton of the accrediting team, and has a right to expect that a majority of team members will be drawn from peer institutions and comparable programs.
A useful evaluation requires substantial input from persons who are directly familiar with the nature of the institution and program being accredited. Without experience at comparable universities or in similar programs, not even the most careful observer can acquire such familiarity in the course of a brief team visit or by reading documents, however carefully prepared.

## 8. In the case of professional schools, although there must be significant input from the profession itself, the uttimate authority over educational policies must remain firmly in the hands of the academic community.

If a realistic program of training for a profession is to be offered, the contributions of practitioners must be solicited and welcomed. We do our students no favor if we fail to equip them to practice according to standards enunciated by the profession and by society in general. At the same time, universities cannot escape the ultimate responsibility for what they teach, how it is taught, by whom, and to whom. They cannot meet this obligation if final authority over standards and sanctions for academic programs rests largely in non-academic hands. Forging an effective partnership between the professions and the professional schools in this regard will continue to offer a major challenge and opportunity for both groups.
3. 3ite greatest help an accrediting agency can offer to a program is to demand that its educational goals be clearly stated and that the program be reasonably calculated to achieve those goals.
An accrediting body can offer useful advice - but only advice - as to whether, in its opinion, the resources are adequate to meet program goals. The primary question must be whether these goals are being achieved, however, rather than whether square footage or salary levels or teacher-student ratios or telephone accessibility meet some arbitrary measure. The essential purpose of accreditation is to assure the prospective student and the public that necessary standards of quality are being satisfied. However meritorious it may be to advance the salaries, perquisites, or working conditions of the faculty or administration of the unit being evaluated, the accrediting process is not the proper vehicle to use for this purpose. An educational program is validated first and foremost by how well it accomplishes the goals set for it. This, in turn, rests ultimately on how well its students and graduates are able to perform - no matter how difficult that is to appraise or predict.

## THE COMMITTEE ON INSTITUTIONAL COOPERATION

Robert McC. Adams. Provost, UNIVERSITY OF CHICAGO \& Edwin L. Goldwasser, Vice Chancellor for Academic Affairs, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN Kenneth R. R. Gros Louis, Vice President, INDLANA UNIVERSITY \& Richard D. Remington, Vice President for Academic Affairs, UNIVERSITY OF IOWA - Billy E. Frye, Vice President for Academic Affairs and Provost, UNIVERSITY OF MICHIGAN Clarence L. Winder, Provost, MICHIGAN STATE UNIVERSITY $₹$ Kenneth H. Keller, Vice President for Academic Affairs, UNIVERSITY OF MINNESOTA © Raymond W. Mack, Provost, NORTHWESTERN UNIVERSITY - Diether H. Haenicke, Vice President for Academic Affairs and Provost, OHIO STATE UNIVERSITY = Felix Haas, Executive Vice President and Provost, PURDUE UNIVERSITTY • Bernard C. Cohen, Vice Chancellor for Academic Affairs, UNIVERSITY OF WISCONSIN-MADISON.
The Committee wishes to express its special appreciation to Bryant E. Kearh, Vice Chancellor for Academic Affairs at the University of Wisconsin-Madison, 1978-1983, for his leadership in the preparation of this statement.

Adopted: $\qquad$

## ACADEMIC SENATE

OF
CALIFORNIA POLYTECHNICSTATE UNIVERSITY
San Luis Obispo, California

## AS-__89/ <br> $\qquad$ <br> RESOLUTION ON DEPARTMENT NAME CHANGE: <br> COMPUTER SCIENCE DEPARTMENT

RESOLVED: That the "Computer Science Department" be changed to "Computer Science and Engineering Department."

Proposed By:
Computer Science Department January 31, 1989

Staje of California
Memorandum

To : Charles Andrews, Chair Academic Senate

Malcorn Academic Senate

FEB 11989

## Academic Senate

File No.:

Copies : William Rife<br>Peter Lee Roger Camp


San Luis Oaispo CA 93407

From : Malco1m W. Wilson
Vice President for Academic Affairs
Subject: PROPOSED DEPARTMENTAL NAME CHANGE FOR THE COMPUTER SCIENCE DEPARTMENT

Attached is a copy of a memorandum from the Computer Science Department dated January 24, 1989 requesting that the name of their department be changed to the "Computer Science and Engineering Department." I would appreciate the Senate reviewing this request and forwarding a recommendation to me. A response prior to the end of the Winter Quarter would be appreciated.

Attachment

## Memorandum

To: Malcolm Wilson, Vice President Academic Affairs
via
Peter Y. Lee, Dean P.Z~ School of Engineering
via
Date: January 24, 1989
Copies: CSC Faculty

jAN 301989

V/CE PRESIDENT ACAOEMIC AFFAIRS

From:
Roger C. Camp, Chair
Computer Science Department
 Computer Science Dept. Curricúlum Committee

Subject: REQUEST FOR DEPARTMENTAL NAME CHANGE

Pursuant to Dr. William Rife's memo of October 22, 1988, (see attachment \#1), we are formally requesting that the name of the Computer Science Department be changed to the Computer Science and Engineering Department.

The desired change was initially proposed at our Fall Department Retreat. It was later discussed in some detail with Dean Lee. Finally it was unanimously approved by the Computer Science Faculty.

Dr. Lois Brady of our faculty was asked to prepare a statement encapsulating the various reasons given in support of the requested name change. Her statement is appended as attachment \#2.

If this request is approved, the Department would wish to begin using the new name during the current catalog cycle.

# Attachment 1 <br> <br> State of California <br> <br> State of California <br> <br> Memorandum 

 <br> <br> Memorandum}


You asked me what steps $y$ ou needed to take to change the name of your department to Computer Science and Engineering, besides including the change in your package of catalog revisions. I asked Malcolm Wilson.

Nalcolm asks that you write a memo to him from or through Roger Camp and through Peter Lee, asking for the change; he foresees no problem in approving it. You could then use the new name before it appeared in the 1990-92 catalog.

## COMPUTER SCIENCE and ENGINEERING - why?

## The meaning of the terms

The American Heritage Dictionary ${ }^{1}$ gives the following definitions:
science- The observation, identification, description, experimental investigation and theoretical explanation of phenomena.
engineering- The application of scientific principles to practical ends as the design, construction, and operation of efficient and economical structures, equipment and systems.

Surely in this department we teach both science and engineering. Indeed it is the strong tradition of Cal Poly that we include the latter. Thus it would reflect more accurately what we do here to be named the Department of Computer Science and Engineering.

## The recent history of the department

In 1984 the Computer Science Department joined the School of Engineering. Subsequently a degree program in Computer Engineering jointly coordinated by the adminstrative officers of the Departments of CSc and EL/EE was established. Ours is presently the only department in the School of Engineering without the designation "Engineering" in its name. Since we are in the School of Engineering, teach courses with an engineering flavor and jointly administer a program in Computer Engineering, it is fitting that this be reflected in our name.

## The designation of professional societies

The IEEE Computer Society has proposed a "Model Program in Computer Science and Engineering ${ }^{2}$." much of which is taught in this department. Thus it seems appropriate to designate our department in this way.

The most recent joint report of the ACM and IEEE Computer Society ${ }^{3}$ on employment of Ph.D.s for the first time includes departments offering degrees in Computer Engineering as well as Computer Science. The intention to integrate the figures for both degrees in the future is stated.

## Perception of others and its potential effect

Faculty report that industry perceives our students as having skills which are appropriately called "Computer Science and Engineering". The new name would alert potential employers to this before hiring our students. This could be beneficial to our graduates as well as employers.

[^0]Students who think of themselves as more interested in applications than in science may be more inclined to apply to a department of "Computer Science and Engineering." This could help provide a larger applicant pool.

There are several institutions which have departments named "Computer Science and Engineering". Cal Poly with its strong tradition of applying knowledge and skill and the precedent of having computer science in the School of Engineering has strong reasons for joining their ranks.

# ACADEMIC SENATE <br> OF <br> CALIFORNIA POLYTECHNIC STATE UNIVERSITY <br> San Luis Obispo, California 

## RESOLUTION ON <br> 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

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# Proposal to Establish <br> A <br> 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;
0 the focusing of academic talent on pertinent industrial problems;
0 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;
0 stimulating research and development in CIM, and promoting education in CIM concepts;
0 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:
0 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;

- 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 availible to Ca 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:


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:

|  |
| :---: |
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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 accomodated within existing facilities. As industrial subscription increases, a new laboratory will be established.

... DOTTED LINES INDICATE CHANNELS OF COMMUNICATION ONLY AND NOT DIRECT ADMINSTRATIVE RESPONSIBILITY


CIM CENTER FACULTY STEERING COMMITTEE

## 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

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.

## PROPOSAL TO ESTABLISH

A

## COMPUTER INTEGRATED MANUFACTURING CENTER

## at

## California Polytechnic State University San Luis Obispo

Submitted By
K. N. Bala, SENG
E. J. Carnegie, SAGR

* Archie Cheda, SENG

Mark Clayton, SAED
Mark Cooper, SENG
Gerry Cunico, SPSE
Rob Grant, SBUS
Ray Haynes, SBUS

* Steve Hockaday, SENG
R. Krishnan, SBUS

Daniel Levi, SPSE
Carl MacCarley, SENG

* Unny Menon, SENG

Saeed Niku, SENG Jens Pohl, SAED
Ahmad Seifoddini, SENG
Chuck Slem, SPSE Don White, SENG
Bob Williams, SBUS
Don Woolard, SAED
on behalf of interested faculty

* proposal authers

May 23, 1989

# CALIFORNIA POLYTECHNIC STATE UNIVERSITY 

San Luis Obispo, California 93407
Academic Senate
805/756-1258

## BALLOT

## FOR THE OFFICE OF

 CHAIR OF THE ACADEMIC SENATE
## Specific Directions:

1. Place a mark in the space opposite the name of the nominee of your choice.
2. A blank space is provided for the name of a write-in candidate, if preferred. (The write-in candidate must be present and have agreed to serve if elected)

## FOR THE OFFICE OF CHAIR OF THE ACADEMIC SENATE:

James Murphy (Industrial Technology)
(Name of write-in candidate, if preferred. PLEASE PRINT)

May 23, 1989

# CALIFORNIA POLYTECHNIC STATE UNIVERSITY 

San Luis Obispo, California 93407
Academic Senate 805/756-1258

## BALに0T

FOR THE OFFICE OF VICE CHAIR OF THE ACADEMIC SENATE

## Specific Directions:

1. Place a mark in the space opposite the name of the nominee of your choice.
2. A blank space is provided for the name of a write-in candidate, if preferred. (The write-in candidate must be present and have agreed to serve if elected)

FOR THE OFFICE OF VICE CHAIR OF THE ACADEMIC SENATE:

Patricia "Sam" Lutrin (Student Life \& Actvs)
(Name of write-in candidate, if preferred. PLEASE PRINT)

# CALIFORNIA POLYTECHNIC STATE UNIVERSITY 

San Luis Obispo, California 93407
Academic Senate
805/756-1258

## BALLOT

FOR THE OFFICE OF SECRETARY OF THE ACADEMIC SENATE

## Specific Directions:

A blank space is provided for the name of a write-in candidate.
(The write-in candidate must be present and have agreed to serve if elected)
Place a mark in the space opposite the name of the nominee.

OF CALIFORALA POLXTECRALC STATE ORXVRRSITY
San Luis Obispo, CA



| HRERREAS | Hoadomic Senate Resolution AS-279-8B/LaPC fon enrodiment growth) included recomwendation to wereate more incentives to oncourage comsinting by mane other than the automobiles and provide more facllities for non-automater ; and |
| :---: | :---: |
| WHERERS | Bicycles provide an efficiont memn for commuting to Cal Rolys and |
| WHEREAS | Blcycle siding on campus currently menults in conflices between pedastrians and meyclzatis, reaulting in some satety xiake for pedestriansz and |
| WEEREAS | The presant circulation systen on campua doas not clearly diseinguish between bicycle sid pectestrian routes, except on Via Caxta; and |
| WHEREAS | Eacilities for bicycles and bicycle parialng are difpersed throughout the campus: therefore be it |
| RESOLVED | That the Campus Planning Commtotee and Public Safety Advisoxy Comolttee propare bicycle circulacion and Facilities plan that would provide a complete bicycle circulation plan for the campus, including clear separation of bicycle and podestrian routes wheze possible and appropatate placement of paxking facilitisis; and be ic further |
| RESOLVED | What the Campus planning Committee and Public Safety Advisory Commitise designate congeated areas where bicyclists would be recruired to walk their bicycles during class breaks and be it furthes |
| RESOLVED | That the qubilc sariory Department be ancouraged to increase its safety swarensess sducation and enforcement prograns; involving the hSI and other atudenc organdzations to assise in implemencation. |

Propozed by: Linda Daltor. Senator for smep May 23, 1.989


[^0]:    ${ }^{1}$ The American Heritage Dictionary of the English Language; Houghton Mifflin Co; Boston
    ${ }^{2}$ IEEE Computer Society order number 932; December 1983
    ${ }^{3}$ The 1986-87 Taulbee Survey; in CACM; August 1988

