

**CALIFORNIA POLYTECHNIC STATE UNIVERSITY**

San Luis Obispo, California 93407

**ACADEMIC SENATE**

**Executive Committee**

**Academic Senate Agenda**

**Tuesday, March 14, 1989**

UU220 3:00-5:00 p.m.

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

*2.7 and 2.14.89  
minutes  
removed*

- I. Minutes:
  - Approval of the February 7/February 14, 1989 Executive Committee minutes (pp. 2-7).
- II. Communication(s) and Announcement(s):
- III. Reports:
  - A. President
  - B. Academic Affairs Office
  - C. Statewide Senators
  - D. James Vilkitis-Concept of a Coastal Resources Institute at Cal Poly
- IV. Consent Agenda:
- V. Business Item(s):
  - A. Should the Academic Senate chairs emeriti plaque continue to be updated and displayed in the Staff Dining room.
  - B. Appointment of Academic Senate representative to the Affirmative Action Faculty Development Program Proposal Review Committee (**please bring the names of your school nominees to the meeting**).
  - C. GE&B Course Proposals-Culver, Chair of the GE&B Committee (pp. 8-31).
  - D. Name Change for Computer Science Department-Camp, Chair of the Computer Science Department (pp. 32-37).
  - E. Academic Senate and committee vacancies (p. 38).
- VI. Discussion Item(s):
- VII. Adjournment: time certain 4:55pm

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME	2. PROPOSER'S DEPT. BIO SCI
3. SUBMITTED FOR AREA (include section, and subsection if applicable) B.1.b	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) ZOO 331,332 Human Physiology (3/3): Function of various organ systems of man with appropriate laboratory experiments. Not open to Anatomy and Physiology Concentration credit to students who have completed ZOO 432 or ZOO 433. 2 lectures, 1 laboratory.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS Subcommittee B supports this proposal (1/30/89)  justification/rationale: several years ago, BioSci combined 2-3 unit courses into a single 5 unit course; this arrangement was not satisfactory. The department now wishes to return to the original status.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS Unanimous recommendation to approve (2/10/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Don Rawlings	2. PROPOSER'S DEPT. MATH
3. SUBMITTED FOR AREA (include section, and subsection if applicable) B.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) MATH 120 College Algebra and Trigonometry (5): An integrated review course in college algebra and trigonometry covering function concepts and symbols, rectangular coordinates, trigonometric functions, linear and quadratic functions, exponential and logarithmic functions, systems of equations and complex numbers. Not open to students with credit in MATH 117, 118 or 119. 5 lectures. Prerequisite: ELM requirement, passing score on Mathematics Placement Examination and 3 years high school math including 2 years high school algebra and trigonometry, or equivalent.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS Approved title change to "Pre-Calculus Algebra and Trigonometry" (1/30/89)  justification and rationale: current title conveys the false idea that MATH 120 is more basic than MATH 118; no change in content, just title.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  Approve (unanimous), 2/10/89	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Don Rawlings	2. PROPOSER'S DEPT. MATH
3. SUBMITTED FOR AREA (include section, and subsection if applicable) B.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) MATH 121 Finite Mathematics (3): Sets and counting problems. Probability theory including stochastic processes, probability distributions, and Markov Chains. Algebra of vectors and matrices, Gaussian elimination, and the inverse of a square matrix. Applications of matrices. 3 lectures. Prerequisite: MATH 118 or equivalent.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS Support renumbering to 124; change does not affect content.  justification and rationale: correction in prerequisites and change to course number 124 avoids the common misunderstanding that MATH 121 is a prerequisite for MATH 221.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS Support change (2/10/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Don Rawlings	2. PROPOSER'S DEPT. MATH
3. SUBMITTED FOR AREA (include section, and subsection if applicable) B.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) (new wording) MATH 141, 142, 143, 241 Calculus I, II, III, IV (4) (4) (4) (4) Limits, continuity, differentiation, integration; techniques of integration, applications to physics, transcendental functions; infinite sequences, vector algebra, curves; partial derivatives and multiple integrals, introduction to vector analysis. 4 lectures. Prerequisite: MATH 118 and MATH 119 or equivalent.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  Change supported; only name change, no change in content proposed.  justification and rationale: proposed to give clarity to calculus sequence; single line in catalog; no change in the content of the courses.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  Approval recommended (2/10/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Don Rawlings	2. PROPOSER'S DEPT. MATH
3. SUBMITTED FOR AREA (include section, and subsection if applicable) B.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) (proposed new wording) MATH 206 Introduction to Linear Algebra (4): Matrices, inverses, linear systems, determinants, eigenvalues, vector spaces, linear transformations, applications. 4 lectures. Prerequisite: MATH 142 or consent of instructor.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  Supports change from 3-to-4 units; content will be the same as MATH 204 but in more depth.  justification and rationale: MATH 206 is an upgraded 4-unit version of MATH 204; will be the first class in 3-course sequence in linear algebra; unit increase will allow for more depth and rigor in course.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  Recommend approval (2/10/89)	
7. ACADEMIC SENATE RECOMMENDATION	



GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Don Rawlings	2. PROPOSER'S DEPT. MATH
3. SUBMITTED FOR AREA (include section, and subsection if applicable) B.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) MATH 312, 313 Linear Algebra (4) (4):	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS <u>justification and rationale:</u> Math wants to renumber above courses and create new MATH 206; purpose is to provide for logical sequence to Linear Algebra courses; new courses (incl renumbering of old MATH 312, 313) <hr/> Approval recommended	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  Approval recommended (2/10/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Don Rawlings	2. PROPOSER'S DEPT. MATH
3. SUBMITTED FOR AREA (include section, and subsection if applicable) B.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) (as shown on proposal) MATH 248 Methods of Proof in Mathematics (4) : Methods of proof (direct, contradiction, conditional, contraposition); valid and invalid arguments; examples from set theory; quantified statements and their negations; functions, indexed sets, set functions; proofs in number theory, algebra, geometry, and analysis; proof by induction; equivalence and well-defined operations and functions; the axiomatic method. 4 lectures. Prerequisite: Math 143 and Math 170 or consent of instructor.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS the proposed change increases MATH 248 from 3-to-4 units; approval recommended.  justification and rationale: unit change will allow for adequate coverage of proofs; new wording in cat. description to support unit increase in topics to be covered	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  approval recommended (2/10/89)	
7. ACADEMIC SENATE RECOMMENDATION	



GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Don Rawlings	2. PROPOSER'S DEPT. MATH
3. SUBMITTED FOR AREA (include section, and subsection if applicable) B.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) (as proposed) MATH 406 Linear Algebra <sup>III</sup> (4): Spectral Theorm, Cayley Hamilton Theorm and minimal polynomial, Jordan and rational canonical forms, applications. Prerequisite: MATH 306	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS justification and rationale: course number change to 406, title changed to Linear Algebra III, and change to a 400 level number reflects the required mathematical maturity. <hr/> subcommittee approves proposed changes.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS recommend approval (2/10/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME  Don Rawlings	2. PROPOSER'S DEPT.  MATH
3. SUBMITTED FOR AREA (include section, and subsection if applicable)  B.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format)  MATH 319 Partial Differential Equations (4): Mathematical formulation of physical laws. Separation of variables. Orthogonal functions and generalized Fourier series. Bessel functions, Legendre polynomials. Sturm Liouville problem. Boundary value problems; nonhomogeneous techniques. Applications to heat flow, potential theory, vibrating strings and membranes. 4 lectures. Prerequisite: MATH 318.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  only proposed change is to renumber to 418; approval recommended.  justification and rationale: course number change more accurately reflects the required mathematical maturity of the course content.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  approval recommended (2/10/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Don Rawlings	2. PROPOSER'S DEPT. MATH
3. SUBMITTED FOR AREA (include section, and subsection if applicable) B.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) MATH 381/382 Modern Algebra (4) (4): Fundamental algebraic structures and types of algebras, including operations within them and relations among them. Groups, rings and fields. 4 lectures. Prerequisite: MATH 248. (new course numbers will be 481 and 482; content of the courses to remain unchanged)	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  proposed changes would renumber and retitl e these two courses; new numbers would be 481/482 and new names would be "Modern Algebra, I, II"; approval recommended  justification and rationale; these courses require a high degree of mathematical maturity and are accordingly being renumbered as 400 level courses.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  approval recommended (2/10/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Don Rawlings	2. PROPOSER'S DEPT. MATH
3. SUBMITTED FOR AREA (include section, and subsection if applicable) B.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) MATH 328 Modern Elementary Mathematics (3) [note: part of a sequence 327 & 329] Development of set theory, number systems, probability and statistics of geometry. Emphasis on activity learning and applications to elementary teaching. Computer applications. 3 lectures. Prerequisite: MATH 327.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  Subcommittee recommends approval of upgrading of Math 328 to incorporate recommendations of the Liberal Studies Curriculum Committee. <hr/>	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  Approval recommended (2/10/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Jim Daly	2. PROPOSER'S DEPT. STATISTICS
3. SUBMITTED FOR AREA (include section, and subsection if applicable) B.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) STAT 313 Design and Analysis of Experiments (3): Applications of statistics for students not majoring in statistics or mathematics. Analysis of variance including one-way classification, randomized blocks, Latin squares, and factorial designs. Introduction of multiple regression and to analysis of covariance. Use of computer software in the solution of statistical problems. 3 lectures. Prerequisite: STAT 212. <u>NOTE: new proposed title is: Applied Experimental Design and Regression Models</u>	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS Change involves proposed new title for the course--Applied Experimental Design and Regression Models. According to the dept. chair, few, if any, students take this course to meet their GEB B.2.a requirement. Approval recommended. justification and rationale: to more accurately clarify the content of the course; title change only.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS Approval recommended (2/10/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Jim Daly	2. PROPOSER'S DEPT. STATISTICS
3. SUBMITTED FOR AREA (include section, and subsection if applicable) B.2.b	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) STAT 130 Introduction of Statistical Reasoning (3): Survey of statistical ideas and philosophy. Emphasis on concepts rather than in-depth coverage of statistical methods. Topics include sampling, experimentation, data exploration, chance phenomena, and methods of statistical inference. No credit to students with a previous statistics course. 3 lectures.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  This courses has been offerred as an X course for GE credit; Statistics now want to offer as a regular course for GE; Subcommittee recommends approval. <u>justification and rationale: see above.</u>	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  Approval recommended (2/10/89)	
7. ACADEMIC SENATE RECOMMENDATION	



GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Jim Daly	2. PROPOSER'S DEPT. STATISTICS
3. SUBMITTED FOR AREA (include section, and subsection if applicable) B.2.b	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) STAT 252 Statistical Inference for Management II (3): Regression, correlation, multiple regression, time series, and forecasting. Use of computers throughout course. Experience with large statistical computer packages in analyzing information in data bases. 3 lectures. Prerequisite: STAT 251 and CsC 120 or one course in computer programing. (note: this is new language above)	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS Subcommittee approves course description changes; these are minor. justification and rationale: change allows transfer students to receive credit for 252, as appropriate for the major, even though there is a slight overlap with STAT 212.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  Approval recommended (2/10/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Jim Daly	2. PROPOSER'S DEPT. STATISTICS
3. SUBMITTED FOR AREA (include section, and subsection if applicable) B.2.b	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) STAT 321, 322 Statistical Analysis (3) (3): Probability and probability distributions for statistical procedures. Statistical techniques based on sampling from normally distributed populations. Regression and correlation, introduction to analysis of variance, analysis of covariance, distribution free procedures. Use of computing facilities in the solution of statistical problems. 3 lectures. Prerequisite: MATH 132 or MATH 142.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  minor changes in course catalog description; recommend approval.  justification and rationale: as with STAT 252, there is a question of the allowable credit a student can earn in certain majors. According to Statistics, a mathematics or computers since major who has received credit for STAT 211 would be allowed to take STAT 321/322 for credit because these classes, which have a higher level mathematical prerequisite, develop	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS probabilistic and statistical techniques not taught in the lower level STAT courses. Recommend approval (2/10/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME B. Rosenthal	2. PROPOSER'S DEPT. Foreign Lang.
3. SUBMITTED FOR AREA (include section, and subsection if applicable) C.1	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format)  SPAN 233 Critical Reading in Hispanic Literature (4): Selected readings from major Hispanic authors that show the Hispanic literary tradition from the Middle Ages to the present in both Spain and Latin America. Includes works by such Medieval, Renaissance, Colonial, Realistic, and 20th century authors as Juan Ruiz, Cervantes, Lope de Vega, Sor Juana Ines de la Cruz, Martí, Unamuno, Lorca, Neruda, and Borges. 4 lectures. Prerequisite: SPAN 202 or equivalent.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  <u>justification and rationale:</u> no change in course; proposed change corrects misleading course title shown on GEB C.1 chart in the current catalog (pg. 102 shows "Spanish lit."; correct title should be Hispanic Lit.  Approval recommended	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  Approval recommended (2/17/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME B. Rosenthal	2. PROPOSER'S DEPT. Foreign Lang
3. SUBMITTED FOR AREA (include section and subsection if applicable) C.1	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) GER 233 Critical Reading in German Literature (4): Selected readings in German from German-speaking authors that show the German literacy tradition from the Middle Ages to the present in both Germany and other German-speaking countries. Includes works by such Medieval, Renaissance, Classical, Romantic, post-Romantic, and 20th Century writers as Wolfram von Eschenbach, Luther, Schiller, Goethe, Rilke, Mann, Böll and Brecht. 4 lectures. Prerequisite: GER 202.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS only minor change in punctuation in cat. desc.; approval recommended	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS approval recommended (2/17/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME B. Rosenthal	2. PROPOSER'S DEPT. Foreign Lang.
3. SUBMITTED FOR AREA (include section, and subsection if applicable) C.1	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) FR 233 Critical Reading in French Literature (4): Selected readings in French from major Francophone authors that show the French literary tradition from the Middle Ages to the present in both France and other French-speaking countries. Includes such works by Medieval, Renaissance, Classical, Romantic, post-Romantic, and 20th Century writers as Crétien de Troyes, Rabelais, Molière, Voltaire, Flaubert, Proust, Gide, Satre, Camus. 4 lectures. Prerequisite: FR 202.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS the only changes proposed were to correct <sup>recent</sup> spelling errors in the cat. desc. approval recommended.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS Recommend approval. (2/17/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Cliff Swanson	2. PROPOSER'S DEPT. MUSIC
3. SUBMITTED FOR AREA (include section, and subsection if applicable) C.2	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) (as proposed/new number and title): MU 120 Introduction to Music (4): Exploration of the world of music with an emphasis upon Western tradition. Discussion of the language of music, the role of music in society, and an emphasis upon the works of major composers from the Renaissance to the present. 3 lectures, 1 activity.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS Justification and Rationale: minor changes to enhance sequencing of intro music courses, clarify content of intro course. Subcommittee recommends approval.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS Recommend approval (2/17/89); no controversy.	
7. ACADEMIC SENATE RECOMMENDATION	



GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Clifton Swanson	2. PROPOSER'S DEPT. MUSIC
3. SUBMITTED FOR AREA (include section, and subsection if applicable) C.3	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) MU 324 Music and Society (3): Designed for the non-music major. Exploration into the role of music in history and culture. Emphasis on appreciation and a deeper understanding of both music and its historical and cultural context through topics of special interest to the general student. Total credit limited to 9 units. 3 lectures. Prerequisite: MU 120 recommended.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS <u>Justification and Rationale:</u> Music has proposed eliminating MU 404,405,406 and combining what was taught in those "Music History" courses into MU 324; it will be a selected topics course; topics will be the same as offered previously. Approval recommended after minor description changes were agreed to by Music.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS Recommend approval (3/1/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Clifton Swanson	2. PROPOSER'S DEPT. MUSIC
3. SUBMITTED FOR AREA (include section, and subsection if applicable) C.3	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format) MU 209 Jazz Styles (3): Survey of jazz as a significant American art form from 1917 to the present; its historical background and development in the United States. Big bands, combos, and soloists. Extensive use of recordings and live presentations. 3 lectures.  Note: new course # is MU 221	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  proposed changes include renumbering course to MU 221 and minor modification in course description;  _____ approval recommended  _____ Justification and Rationale: no change in content; change for the convenience in sequence of Music course offerings.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  approval recommended (2/17/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME B. Rosenthal	2. PROPOSER'S DEPT. Foreign Lang.
3. SUBMITTED FOR AREA (include section, and subsection if applicable) C.3	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format)  GER 305 Significant Writers in German (4): Critical analysis of poetry, essays, novels, plays. Each course will have a subtitle description of the content. May be repeated to 12 units. 4 lectures.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  description change approved after minor changes made. <hr/> Justification and rationale: minor cat. desc. change more accurately reflects content and rigor of the course.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS Recommend approval (2/17/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME B. Rosenthal	2. PROPOSER'S DEPT. Foreign Lang.
3. SUBMITTED FOR AREA (include section, and subsection if applicable) C.3	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format)  SPAN 305 Significant Writers in Spanish (4): Understanding critical analysis and oral discussion of poetry, essays, novels, and plays by selected Hispanic writers. Each course will have a subtitle descriptive of the content. May be repeated to 12 units. 4 lectures.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  course description change approved after minor changes made. <u>Justification and Rationale:</u> proposed cat. desc. changes to make the course desc. more accurately describe the content of the course.	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  Recommend approval (2/17/89)	
7. ACADEMIC SENATE RECOMMENDATION	

GENERAL EDUCATION AND BREADTH PROPOSAL

1. PROPOSER'S NAME Tim Kersten	2. PROPOSER'S DEPT. ECONOMICS
3. SUBMITTED FOR AREA (include section, and subsection if applicable) D.4.b	
4. COURSE PREFIX, NUMBER, TITLE, UNITS, DESCRIPTION, ETC. (use catalog format)  ECON 323 European Economic History (4): Analysis of the growth and development of economic institutions in the European economies from about 1600 to present. 3 lectures. Prerequisite: one course in principles of economics.	
5. SUBCOMMITTEE RECOMMENDATION AND REMARKS  Recommendation against inclusion of this course in D.4.b on the grounds that it is too narrow, too European oriented, given the broad international and nonwestern emphasis for D.4.b. Does not meet the criteria for D.4.b.  Justification and Rationale: Prof. Kersten disagrees with the subcommittee's recommendation; his feeling is that ECON 323 is not a subset of ECON 304, as the Area D committee felt, and that ECON 323 "looks at the influences of cultural, political, and geographical forces in the evolution of the	
6. GE & B COMMITTEE RECOMMENDATION AND REMARKS  We support the subcommittees recommendation; we recommend rejection of ECON 323 for D.4.b. (2/17/89)  western European economy from medieval times."	
7. ACADEMIC SENATE RECOMMENDATION	

State of California

**RECEIVED**

California Polytechnic State University  
San Luis Obispo, CA 93407

**M e m o r a n d u m      FEB 21 1989**

To: Charles T. Andrews, Chair **Academic Senate** Date: February 21, 1989  
Academic Senate

File No:

Copies: Malcolm Wilson  
William Rife  
Peter Lee

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

**Subject: Name Change for Computer Science Department**

The Curriculum Committee has directed me to return this matter to the Computer Science department and the School of Engineering. It is our opinion that this is not a curriculum matter and should be referred to the Office of Academic Affairs and the School of Engineering for a final decision. The fact that there seems to be some confusion as to who decides this matter indicates that the process for department name changes should be clarified. However, we believe that the Curriculum Committee is not the body appropriate for such a decision.



State of California

# Memorandum

**CAL POLY**  
SAN LUIS OBISPO  
CA 93407

FEB 1 1989

To : Charles Andrews, Chair  
Academic Senate

Academic Senate

Date : January 31, 1989

File No.:

Copies : William Rife  
Peter Lee  
Roger Camp

*Malcolm*

From : Malcolm 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

State of California

California Polytechnic State University  
San Luis Obispo, CA 93407

**M e m o r a n d u m**

To: Malcolm Wilson, Vice President  
Academic Affairs

Date: January 24, 1989

via

Copies: CSC Faculty

Peter Y. Lee, Dean *P. Lee*  
School of Engineering

**RECEIVED**  
JAN 30 1989

via

VICE PRESIDENT  
ACADEMIC AFFAIRS

Roger C. Camp, Chair  
Computer Science Department *Roger Camp*

From:

*John B. Connely*  
John B. Connely, Chair  
Computer Science Dept. Curriculum 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.

State of California

# Memorandum

**CAL POLY**  
SAN LUIS OBISPO  
CA 93407

To : John B. Connely  
Computer Science Department

Date : October 20, 1988

File No.:

Copies : R. Camp  
P. Lee  
M. W. Wilson

*William Rife*  
William Rife  
From : Interim Associate Vice President  
for Academic Programs (x2246)

Subject: Changing the Name of the Computer Science Department

You asked me what steps you 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.

Malcolm 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 <sup>1</sup> 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 administrative 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<sup>2</sup>," 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 <sup>3</sup> 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.

---

<sup>1</sup>The American Heritage Dictionary of the English Language; Houghton Mifflin Co; Boston

<sup>2</sup>IEEE Computer Society order number 932; December 1983

<sup>3</sup>The 1986-87 Taulbee Survey; in CACM; August 1988

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.

March 14, 1989

**ACADEMIC SENATE COMMITTEE VACANCIES**

**School of Architecture and Environmental Design**

Constitution & Bylaws	VACANCY
Elections	VACANCY
Instruction	VACANCY
Status of Women	VACANCY

**School of Engineering**

Senate replacement for Walsh	VACANCY
------------------------------	---------

**School of Professional Studies and Education**

Elections	VACANCY
Personnel Policies	VACANCY

**School of Science and Mathematics**

Constitution & Bylaws	VACANCY
Status of Women	VACANCY

**Vacancies on university-wide committees:**

AIDS Task Force

(several faculty are requested)



*Hand 3-14-89 Ex Com*

**RECEIVED**

**MAR 10 1989**

State of California

California Polytechnic State University  
San Luis Obispo, CA 93407

**Academic Senate**

**M e m o r a n d u m**

To: Charles T. Andrews, Chair  
Academic Senate

Date: February 22, 1989

File No:

Copies: William Rife  
Peter Lee

From: C.A. (Tina) Bailey, Chair *CAB*  
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.

**School of Business and School of Engineering**

**MBA/MS Engineering with Specialization in Engineering Management**

1989-90

Date: March 9, 1989

V	A	C
P	S	C
		<p><b>I. DEGREE PROGRAM PROPOSALS -----</b></p> <p><u>A. Degree Program</u></p> <p>A* 1. Joint MBA/MS Engineering with Specialization in Engineering Management (see attached)</p> <p><u>B. Minors</u></p> <p>1. None</p> <p><u>C. Concentrations or Specializations</u></p> <p>1. None</p> <p><b>II. NEW COURSES -----</b></p> <p><u>Graduate School of Business</u></p> <p>A* 1. GSB 579 Manufacturing Strategy (4) 4 sem C5</p> <p>A* 2. GSB 582 High-Technology Marketing (4) 4 sem C5</p> <p>A* 3. GSB 590 Seminar in Sociotechnical Systems (4) 4 sem C5</p> <p><u>Industrial Engineering</u></p> <p>A* 1. IE 556 Technological Project Management (4) 4 sem C5</p> <p>A* 2. IE 557 Technological Assessment and Planning (4) 4 sem C5</p> <p>A* 3. IE 558 Engineering Decision Making (4) 3 lec, 1 lab C4/16</p> <p>A* 4. IE 559 Engineering Research and Development (4) 4 sem C5</p> <p><b>III. DELETED COURSES -----</b></p> <p>1. None</p> <p><b>IV. CHANGES TO EXISTING COURSES -----</b></p> <p><u>Number, Title, Unit Value, C/S Number, Description and Prerequisite Changes</u></p> <p>1. None</p> <p><b>V. GENERAL EDUCATION AND BREADTH COURSES -----</b></p> <p>1. None</p> <p><b>VI. CURRICULUM CHANGES -----</b></p> <p>1. None</p>

CC = Academic Senate Curriculum Committee

AS = Academic Senate

VP = Vice President for Academic Affairs

A\* = approved June 1988

Cal Poly  
Joint Degree Curriculum for MBA/MS in Engineering  
with  
Specialization in Engineering Management<sup>1</sup>

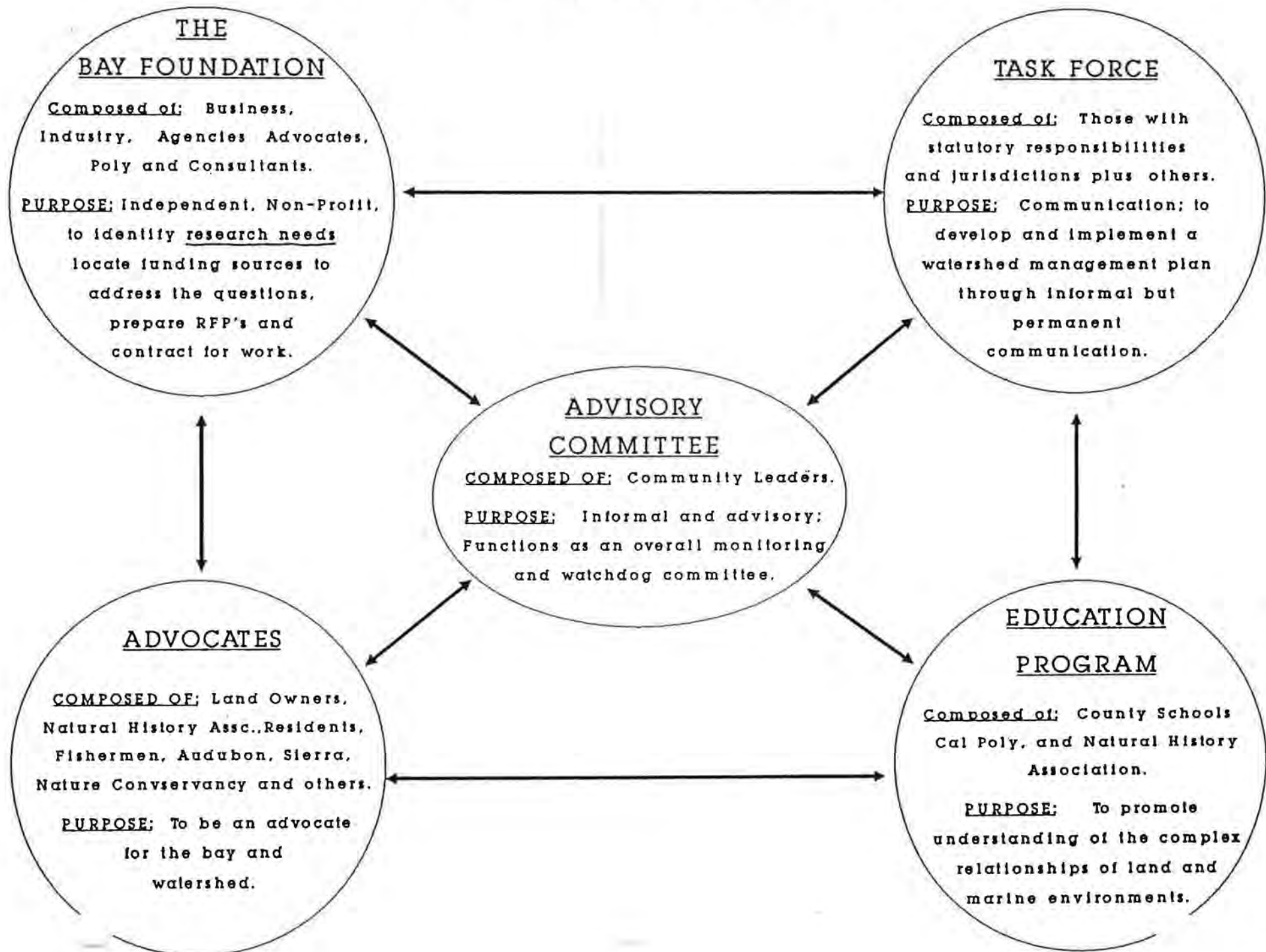
<u>FIRST YEAR</u>	<u>Units</u>
Fall.....	15
GSB 511 Financial Accounting (4)	
GSB 513 Organizations and Management (4)	
GSB 514 Legal Aspects of Management and the Market System(4)	
<sup>2</sup> Technical Elective in Specialization (3)	
Winter.....	16
GSB 521 Accounting for Management Planning and Control (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)	
<sup>3</sup> GSB 532 Quantitative Business Analysis II (4)	
GSB 533 Aggregate Economic Analysis and Policy (4)	
<sup>4</sup> GSB 534 Operations Management (4)	
Summer.....	4
GSB 598 Graduate Internship in Business (4)	
<u>SECOND YEAR</u>	
Fall.....	15
GSB 541 Organizational Behavior (4)	
GSB 542 Marketing Research and Planning (4)	
<sup>5</sup> GSB 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)	
<sup>2</sup> Technical Elective in Specialization (3)	
<sup>6</sup> Summer.....	8
Business Elective (4)	
Business Elective (4)	

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

**Footnotes**

1. 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 course-work taken justifies waiver of some required courses (e.g., see footnotes 3 and 4 above).

# MORRO BAY INTERRELATIONSHIPS



8 27x 202 - 3/14/89 Evec. Cam



**DRAFT**

-----WORKING DRAFT-----  
February 27, 1989

COASTAL RESOURCES INSTITUTE

**GOALS AND CONCEPTS**

A Coastal Resources Institute is proposed to conduct research on natural systems of the coastal zone, on management and utilization of those resources, and the education of various segments of society on coastal issues.

The Institute will seek ways to plan and manage coastal environments through scientific research. Research on multiple use of the environment without adverse impact to the natural systems, and the mitigation of negative impacts, will be prime goals for the Institute.

The Institute is conceived as being self sustaining and complimentary to other programs at the University.

**INTRODUCTION- THE NEED FOR COASTAL STUDIES**

None of the coastal resources of California have escaped the impact of man. The resources, which include the air and water quality, coastal watersheds, beaches, lagoons, estuaries, and nearshore continental shelf, are being impacted by land use changes, altered runoff volumes and quality, environmental disturbance, pollution, and offshore changes in fishing and oil exploration. In many areas the fragile coastal zones are being overwhelmed by man's use, and much of the zone has been destroyed or altered.

Due to the state of crisis facing much of this fragile zone, it has become increasingly apparent to Federal and State government that the coastal zone needs special study and management, and that the problems facing the zone are unique and complex. The study and possible solution of those problems will involve research and management from many academic disciplines and political authorities.

On California's Central Coast, one of the most diverse areas of the coastal zone, Morro Bay, offers a typical example of this complex environmental interaction. Development and changed land use in the watershed affects both the water quality and quantity, carrying both chemical and sediment pollution into the bay. The rich biotic communities on the floor of the bay are impacted by these pollutants, by the other uses in the bay such as boat moorings and mariculture, and by dredging. Dredges remove sediment and dump them in locations where the biological impacts are at best uncertain, and where the spoils might again return to the bay. Land use changes affect endangered species such as the Perigrine Falcon and the Snowy Plover, and the bay's sea otters.

Cal. Poly. is uniquely situated near Morro Bay, and has both facilities

and faculty who are both very willing and qualified to guide and study existing and future conditions in Morro Bay, and in other coastal watersheds. Morro Bay could serve the academic community as a research laboratory, outdoor classroom, and training facility.

It is clear from the formation of local foundations and interest groups that there is intense local interest in the study and management of local coastal resources, but that such study needs some central focus and tools which are not available in the community. It is also clear that the faculty at Cal.Poly. would appreciate the development of some sort of center or focus in relation to their varied and diverse studies on marine and coastal resources.

## THE PROPOSED ~~CENTER~~ INSTITUTE

## DRAFT

The proposed Coastal Resource Institute (C.R.I.) will serve as a multifaceted focus for the organization of coastal studies. The facets will include primary research, applied research, education, data collection and organization, and the enhancement of education at Cal. Poly. The center would serve as a funding base for research proposals which would be developed as either part of a master program developed at the Institute, or as an independent faculty-generated idea, or at the request of outside agencies or organizations such as the Dept. of Fish and Game or the Corps of Engineers. It would be expected that research and data collection would provide many opportunities for student theses and class activities, and that many present class projects could be turned positively toward being of real help to mankind and the environment.

One of the prime advantages of the C.R.I. will be to act as the recipient of grants and awards in co-association with faculty. This is generally considered to be advantageous in obtaining grants, relative to the go-it-alone faculty proposal. This is especially important in the CSU system, which has not had a long record of seeking large scale state and federal funding for research and related purposes.

The C.R.I. expects to work very closely with the Bay Foundation of Morro Bay and other groups outside the University that will be independently seeking grant monies. The Bay Foundation may seek grants, but will not have the technical capability to do the work. Its organizers have stated that they intend to rely upon the capabilities of local institutions. Other groups such as the Coastal Conservancy may also appreciate the presence of an organization such as C.R.I., and be able to use the pool of researchers represented by C.R.I., rather than turning to another institution such as San Francisco State for the solution of local issues.

The Institute will utilize campus computer facilities, library facilities, and laboratory facilities. Funding from grants will provide assigned time for faculty and opportunities for students, with overhead funds compensating the university for facilities and administration costs. The Institute will seek funding for independent facilities, such as buildings, boats, and sampling equipment, etc. Funding through grants would be directed to support of full time technical and clerical staff, and a core research and administration program.



## SOME SPECIFIC C.R.I. GOALS

### 1) Data base and clearing house

Development of a data base for coastal watersheds. This will start, in all probability, on the Morro Bay watershed, but will encompass other coastal watersheds and coastal environments with time. The data base will include species lists, habitat inventories, watershed geologic and sedimentation data, water physics and chemistry, etc.

It is expected that <sup>Local</sup> State and Federal agencies would cooperate in using this information base, and that the presence of the Institute would enhance relationships between the University and those agencies.

### 2) Development of both descriptive and predictive models

The NRM and other departments have a great interest in developing software and computer systems for the purposes of computer simulated models. These would include physical and biological feature distribution, environmental change models, watershed runoff models, etc.

3) Creation of a laboratory facility for research and teaching purposes. This may be located off-campus, preferably on the coast. It is possible that, through appropriate funding, such facilities could be jointly used by guest scientists and educators, and thus enrich the professional growth of faculty and students.

4) Development of specific research programs. Among those already proposed are:

- (a) Studies of dredging impacts on Morro Bay
- (b) Studies of land use changes and sediment infilling of tidelands.
- (c) Enhancement of rare plant habitats.
- (d) Eel grass habitats
- (e) Land use conflicts
- (f) Political and jurisdictional studies
- (g) Use of estuaries by fish

**DRAFT**

It is important that research projects be conducted with a sense of continuity, interdisciplinary cooperation, and contribution to a greater whole, and to that end research could be directed and proposed at the C.R.I.

Greater details on some of the proposed programs are attached in an appendix (not in this draft).

5) Enhancement of public education. The C.R.I. would expect to work with docents of museums, conservation and industry groups such as fishermen, local and county planners, and others in regard to understanding the critical factors influencing the coastal zone. It is expected that students from Poly. could play an important role in developing education and outreach programs.

6) Support of teaching opportunities through CRI activities to enhance student programs at Poly.

The presence of specific research and public information programs developed by the Institute would facilitate and enhance teaching programs at Poly. by utilizing new research data and interdisciplinary team activity.

Biology, Geology, Soils, Land Use, Resource Management, and Political Science courses would gain from the presence of facilities, student project opportunities, and from the sense of continuity developed by student contribution to a program of greater scope. It is possible that the Institute could foster new courses and complete advanced programs, although this would not be considered a fundamental mission. It is expected that C.R.I. would act closely with Federal, <sup>and State</sup> agencies, such as U.S. Fish and Wildlife, <sup>State Fish and Game, State Parks and Recreation, Coastal Conservancy, and the Corps of Engineers,</sup> and that this would be an advantageous relationship for students.

7) Development of a clearing house and forum for defining, studying, and resolving public policy issues in the coastal zone. This would include national, state, and local policies, especially those involving conflict such as marine terminal basing, offshore oil, land use policies, and property rights. This function may also involve both economic and geoeconomic model making, such as complex cost-benefit analysis within a multifaceted economy.

## POLICIES FOR THE INSTITUTE

**DRAFT**

### 1) MEMBERSHIP

Membership would consist of faculty, staff, and students of Cal. Poly. with an interest in study and research of coastal issues. In addition, faculty-selected consultants and Research Associates working on projects associated with the Institute may be members of the Institute.

Admission to Membership would be contingent upon approval by an Advisory Board.

### 2) ADMINISTRATION

The administration of the Institute should be through a Director, an Executive Board for the establishment of policy and programs, and an Advisory Board composed on Institute membership and some representation from the campus at large.

### 3) FUNDING

It is proposed that the Institute be self sustaining, and that funds will derive from grants developed by the Director and Board members. Some contribution from the University in the form of office and laboratory space may be required in the initial stages of formation.

### 4) RULES OF OPERATION

The Institute shall follow the rules of formation and operation for Institutes and Centers, as laid down in Administrative Bulletin 87-3.