CALPOLY
Academic Senate

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

MEETING OF THE ACADEMIC SENATE
Tuesday, October 29, 2002
UU220, 3:00 to 5:00pm

I. Minutes: none.

II. Communication(s) and Announcement(s):

III. Reports:
- A. Academic Senate Chair:
- B. President's Office:
- C. Provost's Office:
- D. Statewide Senators:
- E. CFA Campus President:
- F. ASI Representatives:
- G. Other:

IV. Consent Agenda:

All curriculum and course changes (except for items A and B under Business Items below) as shown at:
***http://www.academics.calpoly.edu/curriculum/index.htm*.**

V. Business Item(s):

A. Approval of New Program Proposals for 2003-2005: second reading, Hannings) chair of the Curriculum Committee (pp. 2-8).

B. "Item Pulled from the Consent Agenda": first reading, Hannings, chair of the Curriculum Committee (p. 9).

VI. Discussion Item(s):

VII. Adjournment:

Status of New Program Proposals
2003-05 Cal Poly Catalog

Currie Comm	Academic Senate Curriculum Committee's Recommendation
Acad Senate	Academic Senate's Recommendation
Provost	President/Provost
C.O.	Chancellor's Office
Date	Date to be Reviewed; Date Sent to C.O. for review; or Effective Date

A=Approved, D=Disapproved, P=Pending, T=Tabled, W=Withdrawn

New Concentrations/Specializations		Acad Senate	Provost	C. O.	Date
American Politics (BA Political Science)	A	P Fall 02		NA	
Ecology (BS Ecology & Systematic Biology)	A	P Fall 02		NA	
Recreation, Parks and Tourism Management (MS Agriculture, specialization name change))	A	P Fall 02		NA	
Systematics and Biodiversity (BS Ecology & Systematic Biology)	A	P Fall 02		NA	

New Minors					Date
Environmental Studies (College of Science & Math)	A	P Fall 02		NA	
Equine Science (Animal Science Dept)	A	P Fall 02		NA	
Geology (Physics Dept)	A	P Fall 02		NA	
Integrated Project Delivery (Construction Mgmt/Arch Engineering Depts)	A	P Fall 02		NA	
Law and Society (Political Science Dept)	A	P Fall 02		NA	
Meat Science and Processing (Animal Science Dept)	A	P Fall 02		NA	
Microbiology (Biological Sciences Dept)	A	P Fall 02		NA	
Rangeland Resources (College of Agriculture)	A	P Fall 02		NA	
Religious Studies (philosophy Dept)	A	P Fall 02		NA	

American Politics Concentration (BA Political Science)

The study of American governmental institutions, politics, and policies. Provides students with a broad knowledge of American politics that could prepare them for careers in public service, as campaign advisers, and as policy analysts.

POLS 315 The American Presidency.	4
POLS 316 Political Parties and Interest Groups *or* POLS 317 Campaigns and Elections	4
POLS 319 United States Congress	4
POLS 337 American Political Thought	4
POLS 470 Selected Advanced Topics	4
POLS 471 Urban Politics	4
Electives	4
	28

Ecology Concentration (BS Ecology & Systematic Biology)

Prepares students for advanced training or professional employment in public or private agencies that deal with the interactions of organisms with their environment. Graduates may pursue careers in education, ecological monitoring or management, environmental impact analysis, and habitat restoration. A graduate will be academically qualified for professional certification as an Associate Ecologist by the Ecological Society of America.

BIO 415 Biogeography	4
BIO 444 Population Ecology	3
ZOO 437 Animal Behavior	4
Systems. Select one course from: BIO 328, 418; BOT 326; MCRO 436	4-5
Methods. Select one course from: BI0207,327,342,419,420	3-5
Diversity. Select one course from: BOT 313, 437; MCRO 224; ZOO 321, 322, 323, 335, 336, 341, 425	4-5
Adviser approved electives	0-4
	26

Recreation, Parks, and Tourism Management Specialization (MS Agriculture)

Prerequisites. In order to develop an academic background in this discipline, students who have not completed a *BSfBA* degree in Recreation Administration will be required to take the following undergraduate courses: REC 101, REC 210, REC 360, and STAT 217/218.

Required Courses

REC 500 Individual Study	3
REC 581 Graduate Seminar	3
REC 599 Thesis	6
SS 501 Research Planning	4
STAT 513 Applied Experimental Design and Regression Models	4
Electives	25
400-500 level courses approved by the graduate committee. At least 3 units must be at the 500 level.	
	45

Systematics and Biodiversity Concentration (BS Ecology & Systematic Biology)

Prepares students for advanced training or professional employment in public or private agencies that deal with the identification, relationships, and classification of organisms. Students develop an understanding of biological diversity, its origins, its significance, and how it is described and organized. Graduates may pursue careers in education, biotic inventories and assessment, museums, herbaria, zoos, and botanic gardens.

BIO 415 Biogeography	4
BOT 443 Systematic Botany	4
MCRO 224 General Microbiology I	5
BOT 313 Taxonomy of Vascular Plants *or* BOT 437 Phycology	4
Select one course from ZOO 321, 322, 323, 341	4
Select one course from ZOO 335, 336, 425, or MCR0436	4
	25

ENVIRONMENTAL STUDIES MINOR

Students who complete a minor in Environmental Studies will be able to:

- Analyze, explain, and evaluate environmental issues from both scientific/technical and social/political/economic perspectives.
- Integrate and synthesize knowledge from multiple disciplines.
- Explain and apply the methodologies and approaches that different disciplines bring to bear on complex problems.
- Work productively and effectively with students from other disciplines and with other points of view.
- Confront and grapple with real issues of contemporary significance, issues that will affect them and their future.
- Gain employment or pursue further study that emphasizes interdisciplinary knowledge and skills.

**Satisfies General Education requirement.*	*Units*
Subject Area Electives	
Select one course from each area. Electives from the subject areas below must be approved in advance by an adviser for the minor. For students attending Earth Semester at Biosphere 2, see below for substitute coursework.	
Biology and ecology: select one	*4*
BIO 112 (B5)*, 227 (B2)*, 301, 325; FNR 306,319 (B5)*	
Earth science: select one	3-4
GEOG 250; GEOL 102 (B3)*; PHYS 313; PSC 201 (B5)*; SS 202	
Energy and pollution: select one	*3-4*
BRAE 348 (F)*; ENVE 324 (F)*, 330, 331; ME 321 (F)*; PHYS 310; PSC 320 (F)*	
Social, political, and ethical issues: select one	*3-4*
CRP 404; ECON 431; HUM 303 (C4)*; PHIL 340 (C4)*; POLS 325, 326; REC 302; SOC 431	
Environmental planning, management, and sustainability: select one	*3-4*
AG 450; CRP 336; EDES 406; FNR 202; GEOG 301 (D5)*, 333; LA 321	
Elective	4
Choose one additional 300-400 level course from the above lists.	
Capstone Course	4
AGIBUSIEDES/ENGRIHUM/SCM 350 The Global Environment (F)*	

24-28

Biosphere 2.
For students attending Earth Semester at Biosphere 2, substitute the following courses for the Subject Area Electives and Elective. All students in the Environmental Studies Minor must complete the Capstone Course, The Global Environment.

SCM 365 Biosphere 2: Earth Systems Science	6
SCM 366 Biosphere 2: Conservation Biology	6
SCM 367 Biosphere 2: Human Role in Environmental Change	5
SCM 368 Biosphere 2: Independent Research in Environmental Science and Policy	3
SCM 369 Biosphere 2: Planetary Management Seminar &Laboratory	4

EQUINE SCIENCE MINOR

The Equine Science minor is designed for students interested in developing a knowledge of and competency in the equine industry. This science-based program will expose students to various aspects of the horse industry, including basic equine husbandry, training, breeding farm manage-ment, sales preparation, and marketing. By completing this minor, students will gain an understanding of the principles and practices used within the equine industry.

Prerequisites. BIO III or BIO 151; VS 223 is recommended for ASCI 315 but not required.

Required courses

ASCI 102 Principles of Animal Science	4
ASCI 220 Intro to Nutrition	4
ASCI 224 Equine Science	4
ASCI 315 Equine Biomechanics	4
ASCI 346 Equine Nutrition	4
ASCI 333 Equine Reproduction *or* ASCI 347 Equine Exercise Physiology	5/3
Selected **courses**	5-7
Select 5-7 units from the following: ASCI 324,329, 333,339/490,344,345, 347; AGB 303, 321	
	28-32

MEAT SCIENCE AND PROCESSING MINOR

Required courses

ASCI 211 Introductory Meat Science	3
ASCI 384 Processed Meat *or* PM 320 Poultry Products	4
ASCI 415 HACCP for MeatIPoultry	3
MCRO 221 Microbiology	4
Selected courses	13-16
6 units must be at upper-division level: ASCI 102/231,226,290/490, 339,450, 476; FSN *125/230,278,364;* MCRO 421, 444; AG 450; any upper-division AGB course	
	27-30

GEOLOGY MINOR

The Geology Minor is offered in conjunction with the Earth and Soil Science Department. It provides a background useful for careers in environmental consulting or geotechnical fields. Interested students should consult with a geology adviser.

Prerequisites for the minor are SS 121, CHEM 111 or CHEM 128, and PHYS 132.

Required Courses.	*Units*
GEOL 201 Physical Geology	3
GEOL 203 Fossils and the History of Life	4
GEOL 241 Physical Geology Laboratory	1
GEOL 305 Fundamentals of Seismology	4
GEOLIERSC 401 Field-Geology Methods	4
GEOLIERSC 402 Geologic mapping	4
SS 223 Rocks and Minerals	4
SS 323 Geomorphology	4
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INTEGRATED PROJECT DELIVERY MINOR

This minor is jointly offered by the Construction Management Department and the Architectural Engineering Department, and is specific and intentional in its design. It is intended to provide an "interdisciplinary" understanding of the design and construction process. It is designed to serve students that will be engaged in the *AJE/C* industry and be involved in integrated services project delivery.

Prerequisite. Upper division standing; and thus students are presumed to have completed the majority of their General Education courses, support, and/or major courses.

Required courses

SCOM 301 Business and Professional Communication	4
CM|CRP 315 Fiscal and Project Feasibility.....	4
EDES 430 Collaborative Process	3
CM 431 Integrated Project Services.....	3
CM 432 Design-Build Project Management	3
IT 454 Facilities Development.....	4
Adviser approved electives.....	9

Construction Management students
must complete 9 units of adviser approved design courses; these courses may be selected from any of the design discipline departments within the CAED - Architecture, Architectural Engineering, Landscape Architecture, or City and Regional Planning (These courses are in addition to design courses which are required for the CM major). Students may select from the following:
ARCE 257, ARCE 422, ARCE 451, ARCE 452,
ARCH 131, ARCH 132, ARCH 221, ARCH 222,
CRP 202, CRP 203, CRP 341,
EDES 113, EDES 406,
LA 114, LA 251, LA 252, LA 253

Other CAED students must complete:
CM 364 Project Administration (3)
CM 452 Project Controls (3)
CM 454 Building Estimating (3)

Non-CAED students
must complete 9 units of adviser approved design and/or CM courses

30

LAW AND SOCIETY MINOR

The minor consists of required coursework and adviser approved electives. Details are available from the Political Science Department. At least 15 units must be 300-400 level.

Required courses	
POLS 341 American Constitution	4
POLS 344 Civil Liberties.....	4
POLS 345 Judicial Process	4
Select two from the following:.....	8
Any English GE C4 course or comparable adviser-approved writing class (4)	
POLS 334 Jurisprudence (4)	
POLS 343 Civil Rights in America (4)	
Adviser approved electives..	8
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MICROBIOLOGY MINOR

This minor is designed to give students from majors in which microbiology may be an important component increased exposure to factual information, concepts and skills in order to provide those students a more complete understanding of the roles of microorganisms as they pertain to studies in their chosen major. The emphasis areas of the minor allow students in the allied health and related fields to expand their breadth of knowledge in microbial diseases, transmission and prevention, and immunologic responses. Students in applied fields of study such as Food and Dairy Sciences, and various aspects of agriculture, would gain additional information in pertinent topics such as microbial involvement in water and wastewater treatment, the role of microorganisms in recycling of nutrients and soil fertility, microbial roles in food processing, spoilage, production and disease transmission.

		Units
Required Courses.		
MCRO 221 Microbiology *or* MCRO 224 General Microbiology	.	4/5
MCRO 225 General Microbiology II	.	5
MCRO 423 Medical Microbiology (for Medical/Health Science emphasis area) *or* MCRO 424 Microbial Physiology (for Applied and Environmental emphasis area)	.	5
Emphasis area courses	.	11-16
Select courses from one of the following emphasis areas, in addition to the courses required, so as to attain a total of 26-30 units:		
Medical/Health Sciences		
MCRO 320, 342, 402, 424, 430, ZOO 425, 426, 428		
Applied and Environmental Sciences		
MCRO 342, 421, 423, 433, 436, 444, SS 422		
		26-30

RANGELAND RESOURCES MINOR

An interdisciplinary program sponsored by the Animal Science and the Earth and Soil Sciences Departments, intended for the purpose of educating students in the field of managing productive and sustainable rangelands, incorporating knowledge of rangeland ecosystems and the associated renewable resources. Also for careers as rangeland specialists or other related fields assisting those who incorporate rangeland resources into their livelihood.

Before being admitted to the program, students must have successfully completed the following: BOT 121 or BIO 114; MATH GE B1 requirement satisfied; SS 121.

Required courses. *At least one-half of the units must be at the 300-400 level.*

Range Resource Area	8
ASCI 329 and AG 450	
Related Animal Area. Select one course from:	3-4
ASCI 141; ASCI 143; ASCI 311	
Related Agricultural Business Area. Select one course from:	4
AGB 212/321/326/457	
Related Plant Area. Select one course from:	4
BIO 435; BOT 313; BOT 326; BOT 333; CRSC 123; CRSC 330; PPSC 221	
Related Resource Management Area. Select one course from:	3-4
BIO 325; BIO 419; BIO 427; FNR 306; FNR 408; GEOG/LAI/FNR 318	
Related Soil Science Area: Select one course from:	3-4
SS 202/321/433/440	
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RELIGIOUS STUDIES MINOR

The Religious Studies minor program is designed for students who want to enhance their understanding of the five great religious traditions of the contemporary world: Judaism, Christianity, Islam, Hinduism, and Buddhism. The minor consists of 24 units. Interested students are invited to contact the Philosophy Department Office for more information and application forms.

	Units
Required courses	
RELS 304 Judaism	4
RELS 306 Hinduism	4
RELS 307 Buddhism	4
RELS 309 Monotheism: Judaism, Christianity and Islam (C4)**	4
PHIL 342 Philosophy of Religion *or*	
PHIL 320 Asian Philosophy	4
PSY 339 Psychology of Religion *or*	
SOC 377 Sociology of Religion	4
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Item Pulled From the Consent Agenda

1. AgBusiness Department Math requirement.

Proposal: Replace the current Math requirement of

Math 118 or Math 221, with

Math 221

Rationale: The department would like their incoming students to be better prepared in Mathematics and believe that requiring Calculus for Business and Economics instead ofPre-Ca1culus Algebra in their curriculum would accomplish this.

Curriculum Committee Opinion: This would be a case of establishing hidden prerequisites. Data from the Math department shows that only 36% oftheir incoming freshmen are qualified to enroll in Math 221, while 46% are qualified for Math 118 (the prerequisite for 221), and 18% require remedial Math. We believe that the message they are trying to send would not be received by high school students in time for them to take Math beyond what is required for admission into the CSu.