I. Minutes: Approval of minutes for Academic Senate meeting on October 24, 2000 (pp. 3-4).

II. Communications and Announcements:
Following the practice implemented last year, summaries of all program and course proposals sent by the Academic Senate Curriculum Committee to the Senate for consideration are posted on the web. The URL for curriculum proposals is http://www.calpoly.edu/~acadprog/curriculum/curriculum_webdir.html and for general education http://www.calpoly.edu/~acadprog/ged. Every senator is expected to review these proposals as well as the accompanying recommendations of the Curriculum Committee.

REGARDING PROGRAM PROPOSALS: All program proposals will go through the normal first and second reading procedure, with descriptions of the programs and curriculum displays attached as hard copy to this agenda.

REGARDING COURSE PROPOSALS: If any senator wished to have a particular course brought before the body of the Senate (see postings on the web), then that request was due in writing or email to the Academic Senate before November 6. Since no proposals were pulled, all course proposals appear on today's agenda as Consent Agenda items.

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:
Curriculum Course Proposals: Keesey, chair of the Curriculum Committee, second reading (See information above regarding course proposals on line).
V. Business Item(s):
   A. **Curriculum Program Proposals**: Keesey, chair of the Curriculum Committee, second reading (pp. 5-14).

   B. **Resolution on Academic Program Review**: Morrobel-Sosa, chair of the IALA, second reading (pp. 15-26). [The “Report on Institutional Accountability: Academic Program Review” is available on the web at http://www.academics.calpoly.edu/programreview/APRFinal.htm. Please inform faculty in your area that this document is available for their review and input].

   C. **Resolution Choice of Catalog Requests Older Than 10 Years**: Breitenbach, chair of the Instruction Committee, first reading (p. 27).

   D. **Resolution on Information Technology Resources Responsible Use Policy**: Grimes/Stengel, IACC Committee, first reading (pp. 28-38).

VI. Discussion Item(s):

VII. Adjournment:
Preparatory: The meeting was opened at 3:14pm.

I. Minutes: Minutes from the Academic Senate meeting of September 26, 2000 were approved without change.

II. Communications and Announcements: Curriculum course proposals are available for viewing at [http://www.calpoly.edu/~acadprog/curriculum/curriculum_webdir.html](http://www.calpoly.edu/~acadprog/curriculum/curriculum_webdir.html).

III. Reports:

   A. Academic Senate Chair: no report.

   B. President’s Office: no report.

   C. Provost’s Office: (Zingg) Cal Poly will be receiving $2.3 million in one-time funds, $1.7 million from the work force preparedness initiative, and $500,000 from lottery funds. $10 million in permanent funding will be added to the state’s budget for the work force initiative and distributed over the next three years. Centennial Celebration activities are underway. Major events will occur from March through fall 2001.

   D. Statewide Senators: no report.

   E. CFA Campus President: (Fetzer) CFA has sent a new proposal to the CSU, but no counterproposals have been received. The proposal can be viewed at [http://www.calfact.org](http://www.calfact.org). Fact-finding began on October 30.

   F. ASI Representatives: ASI representative Leigh Love introduced the second ASI representative to the Senate, Jennifer Rosner. A new ASI publication entitled *Academics and ASI* was distributed to inform the Senate of ASI activities. ASI is looking for faculty feedback regarding its contents.

   G. Other: The Chair introduced Robert Detweiler, interim Vice President for Student Affairs.

   H. Frank Lebens gave an update on the implementation of various Common Management System (CMS) software systems at Cal Poly. Target dates are May 1 for the Human Resources system and July 1 for the Finance system. The Student Administration software will not be used as the present SIS system has greater functional and operational capabilities.

IV. Consent Agenda:
V. Business Item(s):

Business Items were reordered as follows: C, D, E, A, B.

C. **Resolution on Opposition to Proposition 38**: second reading. M/S/F to table resolution indefinitely. M/S/P to adopt the resolution.

D. **Resolution on the Graduate Writing Requirement**: second reading. The original resolution was amended so that “students be allowed to satisfy the GWR either by passing the Writing Proficiency Exam or by being certified writing-proficient in upper-division, writing-intensive classes.” M/S/P to adopt the “amended” resolution.

E. **Resolution on 1999/00 Program Review and Improvement Committee Report of Findings and Recommendations**: second reading. M/S/P (one abstention) to receive the report.

A. **Curriculum Proposals**: first reading. Curriculum proposals will return as second reading items at the November 21 Senate meeting.

B. **Resolution on Academic Program Review**: first reading. Anny Morrobel-Sosa gave background on the working principles of the Report on Institutional Accountability: Academic Program Review. This document sets a new procedure for program review. An amendment was proposed by the CENG caucus stating that departments that have an accreditation process which covers the essential elements of the proposed academic program review, be able to submit its accreditation documents without any additional reviews. The resolution will return as a second reading item at the November 21 Senate meeting.

VI. Discussion Item(s):

VII. Adjournment: Meeting was adjourned at 5:05pm.

Submitted by:

Margaret Camuso
Academic Senate
New Program Proposals 2001-2003 Catalog

College of Agriculture
MS Agriculture,

- Delete Specialization in International Agricultural Development (IAD)
- Add Specialization in Agribusiness (to replace IAD)
- Add Specialization in Crop Science
- Add Specialization in Environmental Horticulture

BS Forestry and Natural Resources,
- Change Commercial/Tourism Management Concentration to Commercial Recreation/Tourism Management Concentration
- Change Wildland Hydrology Concentration to Watershed Hydrology Concentration

BS Nutrition,
- Add Culinary Science and Management in Nutrition Concentration
- Add Dairy Science Minor
- Add Land Rehabilitation Minor
- Add Ornamental Plant Production Minor
- Add Soil Science Minor

College of Architecture and Environmental Design -- no new program proposals

College of Business
BS Economics,
- Delete Quantitative Economics Concentration

College of Engineering
- Add Multidisciplinary Design Minor (Aerospace Engr Dept)

College of Liberal Arts
BS Graphic Communication,
- Add Individualized Course of Study (concentration)

BA Liberal Studies
- Change Credential Track to Elementary Education Concentration
- Change General Track to Individualized Course of Study (concentration)

- Add Blended Program: BS Liberal Studies and Multiple Subject Teaching Credential
- Add Child Development Minor

College of Science and Mathematics
BS Biological Sciences,
- Add Molecular and Cellular Biology Concentration

BS Microbiology,
- Add Applied Microbiology and Biotechnology Concentration
- Add General Microbiology Concentration
- Add Medical and Public Health Microbiology Concentration

BS Biochemistry,
- Add Molecular Biology Concentration
Programs Still Pending Chancellor's Office Approval as of 9/2000, from 2000-01 Program Review Cycle:

Master of Public Policy
MS Accounting
MS Industrial Engineering

College of Agriculture

NEW SPECIALIZATIONS

MS Agriculture, Specialization in AGribusiness

Designed to enhance the agribusiness management, commodity marketing, and technical skills of graduate students with interests in international and domestic agribusiness. Prerequisites: Bachelor's degree with coursework in macroeconomics, microeconomics, mathematics, and statistics.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGB 433/435/422</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>AGB 450</td>
<td>Agricultural Strategy Formulation</td>
<td>4</td>
</tr>
<tr>
<td>AGB 460</td>
<td>Research Methodology in Agribusiness or SS501 Research Planning</td>
<td>2/4</td>
</tr>
<tr>
<td>AGB 510</td>
<td>International Development and Agribusiness</td>
<td>4</td>
</tr>
<tr>
<td>AGB 514</td>
<td>Agribusiness Managerial Leadership and Communication</td>
<td></td>
</tr>
<tr>
<td>FNR 532</td>
<td>Forestry Applications in Biometrics and Econometrics</td>
<td>4</td>
</tr>
<tr>
<td>AGB 543</td>
<td>Agricultural Policy and Program Analysis</td>
<td>4</td>
</tr>
<tr>
<td>AGB 554</td>
<td>Food Systems Marketing</td>
<td>4</td>
</tr>
<tr>
<td>AGB 555</td>
<td>Technological and Economic Change in Agriculture</td>
<td>4</td>
</tr>
<tr>
<td>AGB 563</td>
<td>International Agribusiness Trade: Cases and Theory</td>
<td>4</td>
</tr>
<tr>
<td>AGB 599</td>
<td>Thesis in Agribusiness</td>
<td>6</td>
</tr>
</tbody>
</table>

Restricted elective

Committee approved elective at the 400/500 level 4

48/50

MS Agriculture, Specialization in CROP SCIENCE

Research currently is focused primarily in postharvest technology, viticulture, and integrated pest management, with additional work being done in other areas, including agronomy, horticulture, and precision farming.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRSC/VGSC 521/FRSC 436/PPSC 405</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>CRSC 581</td>
<td>Graduate Seminar</td>
<td>3</td>
</tr>
<tr>
<td>CRSC 599</td>
<td>Theses</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>400- or 500-level research methods course</td>
<td>3</td>
</tr>
</tbody>
</table>

Restricted electives

Any 400- and 500-level courses, approved by the student's graduate committee. A minimum of 23 units must be at the 500 level.

45
MS Agriculture, Specialization in
ENVIRONMENTAL HORTICULTURAL SCIENCE
For students interested in careers in teaching, applied research positions in industry, or to students planning on continuing on for a Ph.D. It would also appeal to foreign students interested in an American graduate degree, particularly since California is internationally famous for its horticulture industry.

Required Courses
EHS 500 Individual Study .......................... 3
EHS 570/571 Selected Topics ......................... 3
SS 501 Research Planning .......................... 4
STAT 512 Statistical Methods ......................... 4
EHS 599 Thesis ..................................... 6

Restricted electives .................................. 25
Any 400- and 500-level courses approved by the student's graduate committee. A minimum of 3 restricted elective units must be at the 500 level.

45

NEW CONCENTRATION
BS Nutrition: Culinary Science and Management in Nutrition Concentration
Designed for students wanting to apply a strong science background in one of two areas, foodservice management or food product development. This concentration serves the growing need for nutritionists who are positioned to make decisions that require a blend of management training, culinary expertise, and a fundamental science background.

FSN 304 Adv. Culinary Principles and Practice ...... 4
FSN 321 Culinary Mgt: Principles and Practice ...... 4
FSN 341 Wines and Fermented Foods .................. 3
FSN 343 Institutional Foodservice I ...................... 3
FSN 344 Institutional Foodservice II .................... 3
FSN 364 Food Chemistry ................................ 4
FSN 408 Food Comp. Science/Product Dev. .......... 4
FSN 411 Sensory Evaluation of Food .................... 3
FSN 425 Food Systems Management .................... 3
AGB 304 Agribusiness Marketing Management ....... 4
BUS 212 Accounting .................................. 4
BUS 381 Industrial Management ....................... 4
Adviser approved electives ............................ 16

59
NEW MINORS
DAIRY SCIENCE MINOR
The purpose of this minor is to help students from other disciplines gain a basic understanding of the terminology and practices used within the field of dairy science. Students may choose to emphasize dairy husbandry or dairy products technology, but the curriculum is flexible enough to accommodate students' individual goals. After completion, dairy husbandry students will have a basic understanding of cattle, dairy nutrition, milk production practices and commercial dairy herd management. Dairy products technology students will have an understanding of dairy food processing and marketing, quality and regulatory control and processing plant management. Specific programs will be designed to reflect the individual students' interest and needs.

The Dairy Science Minor will require two introductory courses. Students must obtain prior program approval from the Dairy Science Minor Coordinator in selecting an additional five courses according to their interests and goals. A minimum of 26 hours is required for the minor, at least half of which must be at the 300 and 400 level.

Required courses
DSCI 121 Elements of Dairying
or DSCI 230 General Dairy Husbandry .......... 4
DSCI 134 Intro to Dairy Products Technology
or DSCI 231 General Dairy Manufacturing .... 4

Courses in area of emphasis .................. 18
Select five courses from one of the two following areas, with adviser approval:

Dairy Husbandry
DSCI 101 Dairy Feeds and Feeding (4)
DSCI 241 Dairy Cattle Selection, Breeds, Fitting and Showing (4)
DSCI 301 Dairy Cattle Nutrition (4)
DSCI 321 Lactation Physiology (4)
DSCI 330 Artificial Insemination and Embryo Biotechnology (4)
DSCI 333 Dairy Cattle Mgt, Safety and Animal Well-Being (4)
DSCI 422 Breeding/Genetics of Dairy Cattle (4)
DSCI 432 Advanced Dairy Herd Management (4)

Dairy Products Technology
DSCI 202 Dairy Promotion and Marketing (4)
DSCI 223 Frozen Dairy Foods (4)
DSCI 233 Milk Processing and Inspection (4)
DSCI 234 Dairy Foods Evaluation (2)
DSCI 401 Phys/Chem Properties of Dairy Products (4)
DSCI 402 Quality Assurance and Control of Dairy Products (4)
DSCI 433 Dairy Plant Management and Equipment (4)
DSCI 434 Cheese and Fermented Dairy Foods (4)
DSCI 435 Concentration/Fractionation and Butter Technology (4)
DSCI 444 Dairy Microbiology (4)

26
LAND REHABILITATION MINOR
Students completing the minor will gain skills in recognizing, assessing, and treating disturbed lands for numerous purposes, including erosion and sediment control, water quality improvement, habitat restoration, and aesthetic enhancement. They will develop proficiency in plant identification and selection, soil properties and processes, and ecological principles, and also learn to set criteria and judge the feasibility, prudence, efficiency, and effectiveness of rehabilitation efforts.
Before being admitted to the minor, students must have successfully completed the following courses:
  BOT 121 or BIO 114; SS 121; MATH 118
At least one-half of the units must be at the 300-400 level. Generally, courses required for the student's major degree cannot be counted toward the minor, except that courses selected in the required core may count in both the major and minor programs. This and other course exceptions must be approved by the minor coordinator. As a guideline, students should take at least 20 units from outside their major degree program.

Required core courses
- Plant area (select one course): 3-5
  - BIO 152
  - BOT 238, 333
  - EHS 381
- Soils area: 4
  - SS 321 Soil Morphology (4) or SS 440 Forest and Range Soils (4)
- Ecological Principles (select one course): 4
  - BOT 326; FNR 306; AG 450
- Project (select one course): 3-4
  - May be selected from Special Problem, Selected Advanced Topic, Senior Project or other course designation approved by the minor coordinator.

Coordinator approved electives 12-17
Select 4 courses from the following list.
- ASCI 329; BIO 334; BOT 313, 324;
- BRAE 340, 415; CRSC 221, 327;
- EHS 124, 382; FNR/LA 318;
- FNR 307, 308, 408, 419, 420
- MCRO 436; SS 202, 221

26-34

ORNAMENTAL PLANT PRODUCTION MINOR
The Ornamental Plant Production minor gives a student an understanding of the important ornamental crops grown in California, how they are propagated and grown, how we manipulate the environment to control the crop, and how they are harvested and handled after harvest. Ornamental plants are a multibillion dollar part of the agriculture industry in California, and students majoring in Agricultural Business, Crop Science, Fruit Science, and Plant Protection Science may well deal with ornamental plants as crops during their careers.

Required courses
- EHS 121 Fundamentals of Environmental Horticulture I: 4
- EHS 124 Plant Propagation: 4
- EHS 210/310/401 Enterprise Project/Field Studies: 1

Electives 19
- Chosen from:
- EHS 231/232, 324, 327, 340, 341, 342, 424, 425

28
SOIL SCIENCE MINOR
The minor in Soil Science is intended for students majoring in a scientific field, including agriculture and natural resources, chemistry, and biological sciences.

Required courses
SS 121 Introductory Soil Science (B5) .................... 4
SS 202 Soil and Water Conservation ....................... 3
SS 221 Fertilizers and Plant Nutrition or SS 223
    Rocks and Minerals ......................................... 4
SS 321 Soil Morphology ....................................... 4

Restricted Electives ........................................... 11/14
SS 310 Urban Soils (4)
SS 322 Soil Fertility (4)
SS 323 Geomorphology (4)
SS 345 Soil Interpretations and Management (4)
SS 422 Soil Microbiology and Biochemistry (4)
SS 423 Soil and Water Chemistry (5)
SS 431 Soil Resource Inventory (4)
SS 432 Soil Physics (5)
SS 433 Land Use Planning (3)
SS 440 Forest and Range Soils (4)
SS 442 Soil Vadose Zone Remediation (4)
SS 453 Tropical Soils (4) 26/29

College of Engineering
NEW MINOR
Multidisciplinary Design Minor (Aerospace Engineering Department)
The minor will enhance students' ability to work in multidisciplinary engineering teams. The students will develop an understanding of the design process and the role of systems engineering in product design and development including costs analysis. They will also learn the systems integration process and how different subsystems are interfaced to develop a successful product.

Non-AERO students in the minor will be admitted by permission of the minor coordinator, and not held to the prerequisites for AERO 443/444/445 or AERO 447/448/449, nor IME 418.

Curriculum for Multidisciplinary Design Minor

Introductory courses ........................................... 14
IME 314 Engineering Economics (3)
IME 418 Product-Process Design (4)
BUS 271 Principles of Management (3)
PSY 350 Teamwork (4)

Core courses ..................................................... 16
AERO 360 Creative Problem Solving and Engineering Design (2)
AERO 443/444/445 or AERO 447/448/449 (10)
AERO 450 Aerospace Systems Engineering (4) 30
College of Liberal Arts

NEW CONCENTRATION

BS Graphic Communication: Individualized Course of Study (Concentration)

An opportunity to pursue a course of study that meets a student's individual needs and interests. This concentration consists of 30 units; a minimum of 18 units must be upper division and a minimum of 8 units must be Graphic Communication. The student will select the courses in consultation with the concentration coordinator and department head, and provide written justification for the courses and the way they constitute a cohesive, integrated program of study. The list of courses will serve as a contract between the student and the Graphic Communication Department.

NEW BLENDED PROGRAM

BS Liberal Studies and Multiple Subject Teaching Credential

- 60 units upper division
- GWR
- 2.0 GPA
- USCP

* = Satisfies General Education requirement

MAJOR COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS 101</td>
<td>Orientation to Liberal Studies</td>
<td>1</td>
</tr>
<tr>
<td>LS 211</td>
<td>The American Enterprise: The Birth of a Nation to 1876 Centennial</td>
<td>4</td>
</tr>
<tr>
<td>LS 212</td>
<td>The American Enterprise: The 1876 Centennial to the 21st Century</td>
<td>4</td>
</tr>
<tr>
<td>LS 230</td>
<td>Community-Based Field Experience or EDUC 300 Intro. to the Teaching Profession</td>
<td>3</td>
</tr>
<tr>
<td>LS 461</td>
<td>Senior Project</td>
<td>2</td>
</tr>
<tr>
<td>BIO 113</td>
<td>Animal Diversity &amp; Ecology (B2/B4)*</td>
<td>4</td>
</tr>
<tr>
<td>BIO 114</td>
<td>Plant Diversity &amp; Ecology (Area B)*</td>
<td>4</td>
</tr>
<tr>
<td>BIO 115</td>
<td>Human Biology</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 330-352, 355 (C4)*</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>(ENGL 345/346 (USCP) recommended)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linguistics. Select one: ENGL 290, 390, 391, 395</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>MATH 118</td>
<td>Pre-Calculus Algebra (B1)*</td>
<td>4</td>
</tr>
<tr>
<td>MATH 119</td>
<td>Trigonometry or STAT 130/217 (B1)*</td>
<td>4</td>
</tr>
<tr>
<td>Ethics. Select one: PHIL 331/335/337/338 (PHIL 338 recommended)</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>PSC 101</td>
<td>The Physical Envmt: Matter/Energy (B3)*</td>
<td>4</td>
</tr>
<tr>
<td>PSC 102</td>
<td>The Physical Envmt: Atoms/Molecules</td>
<td>4</td>
</tr>
<tr>
<td>PSC 103</td>
<td>The Physical Envmt: Earth/Universe</td>
<td>4</td>
</tr>
<tr>
<td>Foreign language 103-level or equivalent</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Courses to complete concentration</td>
<td></td>
<td>58</td>
</tr>
</tbody>
</table>

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SUPPORT COURSES

In order to take the following courses the student must be admitted to the University Center for Teacher Education Multiple Subject Credential Program. Those students not admitted to this program will complete the BA Liberal Studies.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 428</td>
<td>Teaching Reading in Grades K-3</td>
<td>4</td>
</tr>
<tr>
<td>EDUC 429</td>
<td>Teaching Reading in Grades 4-8</td>
<td>4</td>
</tr>
<tr>
<td>EDUC 431</td>
<td>Teaching Soc. Studies and the Arts</td>
<td>4</td>
</tr>
<tr>
<td>EDUC 432</td>
<td>Teaching Science and Math</td>
<td>4</td>
</tr>
<tr>
<td>EDUC 454</td>
<td>Student Teaching I</td>
<td>7</td>
</tr>
<tr>
<td>EDUC 455</td>
<td>Student Teaching Seminar I</td>
<td>2</td>
</tr>
</tbody>
</table>

25

GENERAL EDUCATION (GE)

72 units required; 24 units are in Major.

- See page 79 for complete GE course listing.
- Minimum of 12 units required at the 300-400 level.
Area A Communication (12 units)
A1 Expository Writing ............................................ 4
A2 Oral Communication ........................................... 4
A3 Reasoning, Argumentation, and Writing................. 4

Area B Science and Mathematics (no addl units reqd)
B1 Mathematics/Statistics * 8 in Major ....................... 0
B2 Life Science * 4 in Major .................................. 0
B3 Physical Science * 4 in Major ............................ 0
B4 One lab taken with either a B2 or B3 course
B5 elective
Area B elective (select one course from B1-B5) *
4 units in Major .................................................. 0

Area C Arts and Humanities (12 units)
C1 Literature ......................................................... 4
C2 Philosophy ........................................................ 4
C3 Fine/Performing Arts ......................................... 4
C4 Upper-division elective * 4 in Major ..................... 0

Area D/E Society and the Individual (20 units)
D1 The American Experience (40404) ................. 4
D2 Political Economy .............................................. 4
D3 Comparative Social Institutions ....................... 4
D4 Self Development (CSU Area E) ......................... 4
D5 Upper-division elective .................................... 4

Area F Technology Elective (upper division)
(4 units) ............................................................ 4

ELECTIVES ............................................................ 4

197

ELEMENTARY EDUCATION CONCENTRATION

*** Pending *** CD/EDUC 301 Intro. to Learner’s
Development, Culture, Language and Identity .... 5
FORL Field Experience in a Bilingual Setting ...... 1
EDUC 308 Effective Teaching/Classrm Mgt G. K-3 2
EDUC 309 Effective Teaching/Classrm Mgt G. 4-8 2
EDUC 440 Educating the Exceptional Individual ... 4
BIO 306 Applications of Biological Concepts or
PSC 304 Applications of Physical Science or
PSC 305 Patterns of Change ................................. 4
MATH 327 Math for Elementary Teaching I ........ 4
MATH 328 Math for Elementary Teaching II ....... 4
MATH 329 Mathematical Apps to Elem Teaching . 4
Arts elective: MU 360/LS 310/TH 380 Music,
Storytelling or Drama for the Classroom .......... 4
KINE 250 Health Education ................................. 4
KINE 310 Concepts in Elementary Physical Ed .... 4
Area of emphasis .................................................. 16
At least 8 units must be 300-400 level. LS 461 Senior
Project will complement emphasis. ................. 58

1 4 additional post-baccalaureate units required for Multiple Subject Credential. To complete a Preliminary Multiple Subject Credential (Level I), EDUC 456 and EDUC 457 must be taken as a post-baccalaureate graduate student.
NEW MINOR
Child Development Minor
The minor is designed to give students in Liberal Studies and other majors a broad knowledge base in child development. Biological, cognitive, social, and emotional development are examined with opportunities to explore development in the contexts of family and culture. The minor builds upon students' critical thinking skills by stressing the research base of the current knowledge in the field. At the same time, applications of that research, especially as they apply to teaching, are explored. This minor complements one's training in Liberal Studies by its emphasis on approaching child development as a coherent whole and as a scientific area of study.

Support Units
PSY 201 or PSY 202 General Psychology (D4) ..... 4
STAT 217 Intro to Statistical Concepts/Methods .... 4
CD/EDUC 301 Introduction to the Learner's Development, Culture, Language and Identity..... 5

Required core
CD 324 Guiding Children.............................. 4
CD 329 Research Methods in Child Development .. 3
CD 350 Developmental Issues in Education............ 3

Adviser approved elective................................ 4
May be selected from PSY/CD 306, CD 203, 401, PSY 419, 420, 421, 456, 460

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College of Science and Mathematics
NEW CONCENTRATIONS
BS Biological Sciences: Molecular and Cellular Biology Concentration
Designed for students who are interested in the biological sciences with an emphasis on the molecular and cellular level, and to provide preparation for professional or graduate study or jobs in biotechnology.

BIO/CHEM 375 Molecular Biology Laboratory .... 2
CHEM 316 Organic Chemistry I .................... 5
CHEM 317 Organic Chemistry II .................... 5
CHEM 371 Biochemistry............................... 5
CHEM 372 Metabolism.................................. 3
CHEM 474 Protein Techniques Laboratory........ 2
Two of the following: ........................................ 8-10
BOT 450 Plant Biotechnology (5)
MCRO 402 Virology (5)
MCRO 433 Industrial Microbiology and Biotechnology (5)
ZOO 426 Immunology and Serology (4)
or CHEM 473 Immunochemistry (3)

30-32

BS Microbiology: (3 new concentrations)
Applied Microbiology and Biotechnology Concentration
Designed for students interested in the application of microbiology to various fields, such as food microbiology, industrial microbiology, or biotechnology.

MCRO 433 Industrial Microbiology and Biotechnology ....................................................... 5
BIO 152 Biology of Plants or BIO 153 Biology of Animals .................................................... 5
BIO/CHEM 375 Molecular Biology Laboratory .... 2
CHEM 317 Organic Chemistry II .................... 5
CHEM 372 Metabolism.................................. 3
CHEM 474 Protein Techniques Laboratory........ 2
SCM 201 Orientation to Biotechnology.......... 1
Adviser approved electives ...................... 11

34
### General Microbiology Concentration
Designed for students interested in a broad background in microbiology whose goals may include graduate school, professional studies, or post-baccalaureate professional employment.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCRO 421 Food Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>MCRO 404 Microbial Diversity and Evolution</td>
<td>4</td>
</tr>
<tr>
<td>MCRO 436 Microbial Ecology</td>
<td>5</td>
</tr>
<tr>
<td>BIO/CHEM 375 Molecular Biology Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 317 Organic Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>Adviser approved electives</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>34</td>
</tr>
</tbody>
</table>

### Medical and Public Health Microbiology Concentration
Designed for students whose goals may include graduate or professional studies, or professional employment, in medical or public health microbiology, epidemiology, or medical laboratory technology.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 153 Biology of Animals</td>
<td>5</td>
</tr>
<tr>
<td>MCRO 421 Food Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>Select three of the following courses:</td>
<td>12</td>
</tr>
<tr>
<td>MCRO 342 Sanitary Microbiology (4)</td>
<td></td>
</tr>
<tr>
<td>MCRO 430 Medical Mycology (4)</td>
<td></td>
</tr>
<tr>
<td>ZOO 425 Parasitology (4)</td>
<td></td>
</tr>
<tr>
<td>ZOO 428 Hematology (4)</td>
<td></td>
</tr>
<tr>
<td>Adviser approved electives</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>34</td>
</tr>
</tbody>
</table>

### BS Biochemistry: Molecular Biology Concentration
Offers courses which investigate the chemical nature of biological molecules related to genes and their expressed products. It augments the already strong biochemistry curriculum by emphasizing laboratory techniques in nucleic acid and protein manipulation along with elective courses exploring the fields of bioinformatics, industrial microbiology, pharmacology, and cell biology. Molecular biology is essential for modern applications of biotechnology in the agricultural, pharmaceutical, and medical industries and in pursuing research in all biochemistry related disciplines. It not only prepares students for advanced degrees in biology, microbiology, and biochemistry, but also for the large number of jobs in the biotechnology industry in California.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 377 Drugs and Poisons</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 348 Bioinformatics or BIO 342 Computer</td>
<td>3-4</td>
</tr>
<tr>
<td>Applications in Biology</td>
<td></td>
</tr>
<tr>
<td>BIO 452 Cell Biology</td>
<td>4</td>
</tr>
<tr>
<td>SCM 201 Orientation to Biotechnology</td>
<td>1</td>
</tr>
<tr>
<td>Adviser approved electives</td>
<td>12</td>
</tr>
<tr>
<td>(select 12 units from the following)</td>
<td></td>
</tr>
<tr>
<td>CHEM 472 Plant Biochemistry</td>
<td>(4)</td>
</tr>
<tr>
<td>CHEM 473 Immunochemistry</td>
<td>(3)</td>
</tr>
<tr>
<td>CHEM 477 Biochemical Pharmacology</td>
<td>(3)</td>
</tr>
<tr>
<td>BOT 450 Plant Biotechnology</td>
<td>(5)</td>
</tr>
<tr>
<td>ENGR 581/582/583 Biochemical Engineering</td>
<td>(4)(4)(4)</td>
</tr>
<tr>
<td>MCRO 225 General Microbiology II</td>
<td>(5)</td>
</tr>
<tr>
<td>MCRO 404 Microbial Diversity</td>
<td>(4)</td>
</tr>
<tr>
<td>MCRO 433 Industrial Microbiology</td>
<td>(5)</td>
</tr>
<tr>
<td>SCM 451 Ethics in the Sciences</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>23-24</td>
</tr>
</tbody>
</table>
Background: In 1971, The California State University (CSU) Board of Trustees established an academic planning and program review policy (AP 71-32) requiring each campus to establish criteria and procedures for planning and developing new programs and conduct regular reviews of existing programs. CSU Executive Order No. 595 calls for "regular periodic reviews of general education policies and practices in a manner comparable to those of major programs. The review should include an off-campus component." CSU Executive Order No. 729 also calls for periodic reviews of centers, institutes, and similar organizations. These policies have been reaffirmed in The Cornerstones Report and in the Cornerstones Implementation Plan. In 1992 Cal Poly adopted the Academic Program Review and Improvement Guidelines establishing procedures for the conduct of academic program reviews. These procedures and recommendations for external reviews of programs have since been modified. Currently, the information requested from programs that undergo internal review includes descriptions of educational goals, instructional designs and methods, assessment methods and the data so collected, and the procedures for utilizing the collected information.

In 1999, the Provost appointed and charged the Task Force on Institutional Accountability and Learning Assessment "to propose a systematic and coordinated approach to addressing academic (and larger institutional) accountability and assessment issues" consistent with our institutional mission and values. The need to build upon, integrate and implement the perspective and approaches contained in existing Cal Poly documents, and the desire to keep these approaches clear, concise and simple were also emphasized. The revised academic program review process drafted by the Task Force, and attached to this resolution, is submitted for your consideration.

WHEREAS: The CSU has established policies requiring periodic review of the following academic programs: major programs, graduate programs, and general education. These policies have been reaffirmed in The Cornerstones Report, the Cornerstones Implementation Plan, and The CSU Accountability Process.

WHEREAS: Cal Poly's Academic Senate has also established procedures and guidelines for the conduct of academic program reviews, as evidenced by Senate resolutions: Academic Program Reviews (AS-383-92), Academic Program Review and Improvement Guidelines, Academic Program Review and Improvement Guidelines Change (AS-425-94), External Review (AS-496-98) and Procedures.
WHEREAS: The implementation of the Academic Senate resolutions on academic program review has resulted in a duplication of processes and inefficient use of resources.

WHEREAS: An effective academic program review should recognize program distinctiveness and different disciplinary approaches to student learning.

WHEREAS: An effective academic program review should also include the direct participation of the Deans, as recently noted in by the WASC Visiting Team in the WASC Visiting Team Final Report.

WHEREAS: Self-studies of interest and significance to the faculty are more conducive to program improvement than are formulaic exercises in compliance.

RESOLVED: That the Academic Senate accept and adopt the academic program review process proposed in the “Report on Institutional Accountability: Academic Program Review.”

Proposed by: The Task Force on Institutional Accountability and Learning Assessment (IALA)
Date: October 3, 2000
After an extensive study of academic program review processes and practices statewide and nationwide, the Task Force on Institutional Accountability and Learning Assessment proposes a revised academic program review process for Cal Poly. Some of the key features include:

- a mission-centric focus of program reviews
- a discipline-based program review that recognizes program distinctiveness and different disciplinary approaches to student learning
- a self-study that is defined, designed and conducted by the program faculty and encourages serious reflection on issues of interest and significance that is more conducive to program improvement
- the combination of internal and external reviews (peer review and/or specialized accreditation)
- the involvement of program faculty, students, community, campus administrators, and external experts in the discipline
- the involvement of College Deans in helping to design the review
- a program review team composed of (at least) four members who are knowledgeable in the discipline/field of the program under review
- a 1-2 day site visit conducted by the program review team and
- a feedback loop that includes the development of an action plan for improvement, jointly written by the program, the Dean and the Provost
- a six-year cycle for periodic reviews of all academic programs, including General Education, and centers and institutes
- the alignment of academic program review with planning, budgeting, and Cal Poly's accountability process for the CSU
In 1971, the California State University (CSU) Board of Trustees established an academic planning and program review policy (AP 71-32) requiring each campus to establish criteria and procedures for planning and developing new programs and conduct regular reviews of existing programs. CSU Executive Order No. 595 calls for "regular periodic reviews of general education policies and practices in a manner comparable to those of major programs. The review should include an off-campus component." CSU Executive Order No. 729 also calls for periodic reviews of centers, institutes, and similar organizations. These policies have been reaffirmed in The Cornerstones Report and in the Cornerstones Implementation Plan. In 1992 Cal Poly adopted the Academic Program Review and Improvement Guidelines establishing procedures for the conduct of academic program reviews. These procedures and recommendations for external reviews of programs have since been modified. Currently, the information requested from programs that undergo internal review includes descriptions of educational goals, instructional designs and methods, assessment methods and the data so collected, and the procedures for utilizing the collected information. Thus, there is an increasing interest toward incorporating principles that make individual courses and the general programs in which they reside more accountable for student learning.

The Task Force on Institutional Accountability and Learning Assessment was appointed and charged by the Provost "to propose a systematic and coordinated approach to addressing academic (and larger institutional) accountability and assessment issues" consistent with our institutional mission and values. We have used as guiding principles the need to build upon, integrate and implement the perspective and approaches contained in existing (Cal Poly and CSU) documents, and the desire to keep these approaches clear, concise and simple. Establishing consistency, while maintaining flexibility, in internal accountability, external accountability and reporting is crucial. The Task Force has applied this approach in preparing this document, Report on Institutional Accountability: Academic Program Review, and used the following documents as resources:

Cal Poly Mission Statement
Cal Poly Strategic Plan
Commitment to Visionary Pragmatism
Academic Program Reviews (AS-383-92)
Academic Program Review and Improvement Guidelines
Academic Program Review and Improvement Guidelines Change (AS-425-94)
External Review (AS-496-98) and Procedures for External Review (AS-497-98)
Program Efficiency and Flexibility (AS-502-98)
Program Review and Improvement Committee Bylaws Change (AS-523-99)
Cal Poly Plan
Cal Poly's General Education Program
Cal Poly as a Center of Learning (WASC Self-Study)
Review of the Baccalaureate in the California State University
The Cornerstones Report
Cornerstones Implementation Plan
The CSU Accountability Process
Cal Poly's Response to the CSU Accountability Process
"Best Practices" Documents and Resources from Other Institutions

GUIDING PRINCIPLES AND DEFINITIONS
Academic program review (APR) is a comprehensive and periodic review of academic programs, General Education, and centers and institutes. APR is a function of the Provost, in conjunction with the College Deans and the Academic Senate, and is coordinated by the Vice-Provost for Academic Programs and Undergraduate Education (VP-APUE).

Academic program review has as its primary goal, enhancing the quality of academic programs. Hence, it is an essential component of academic planning, budgeting, and accountability to internal and external audiences. APR is not a review of academic departments or other such administrative units. Each program, department (administrative unit) and college is responsible for their curricular decisions and programmatic offerings within existing resources. All such decisions shall be the purview of the faculty of the program, department (administrative unit) and/or college. Interdisciplinary programs, centers, and institutes also fall within the purview of this policy.

Academic program review of programs subject to professional or specialized accreditation will be coordinated to coincide with the accreditation or re-accreditation review, whenever possible. Although some programs may choose to use the self-study developed for their professional accreditation as one of the elements of the APR, it is important to note that accreditation reviews serve a different purpose than that of institutional academic program reviews.

The following definitions should help in distinguishing terms used throughout this document:

- **Academic program** is a structured grouping of course work designed to meet an educational objective leading to a baccalaureate or post-baccalaureate degree, or to a teaching credential.
- **Centers, institutes and similar organizations** are entities under the aegis of an administrative unit that "offer non-credit instruction, information, or other services beyond the campus community, to public or private agencies or individuals."
- **Department** is an administrative unit which may manage one or more academic program, center, institute or similar organization.
- The term **program** is used to mean an academic degree program, General Education program, center, institute or similar organizations subject to institutional review.
- **The Program Administrator** is the individual responsible for administrative authority of the Program, and is usually referred to as the Program Head, Chair, or Director.
- The self-study is to be designed and prepared by the Program Administrator and representative Program faculty, referred to in this document as the **Program Representative(s)**.
- The (time) schedule for every academic program review is based on business, not calendar, days.

**PURPOSE**

The goal of academic program review is to improve the quality and viability of each academic program. Academic program review serves to encourage self-study and planning within programs and to strengthen connections among the strategic plans of the program, the College and the University. Academic program reviews provide information for curricular and budgetary planning decisions at every administrative level.
The academic program review process is intended to close the circle of self-inquiry, review and improvement. The basic components of APR are:

- a self-study completed by the faculty associated with the Program,
- a review and site-visit conducted by a Program Review Team chosen to evaluate the Program, and
- a response to the Program Review Team's report, prepared by the Program Representative(s), the Program Administrator, the College Dean and the Provost.

Although details are contained throughout this document, the process can be summarized as follows:

1. The Provost and College Dean select and announce the programs to be reviewed at least one year prior to the review.
2. For each program under review, a Program Review Team (Team) is appointed and a schedule is established for the review. Willingness and availability of the Team members for the entire review process should be secured well in advance. Procedures and charge to the Team must also be communicated and acknowledged by each member of the Team prior to the review.
3. The Program representative(s), Program Administrator, College Dean and Provost negotiate the content or theme of the self-study and establish a schedule for completion of the review. An essential element of the self-study must address student learning.
4. The Program representative(s) conducts the self-study and submits copies to the VP-APUE for distribution to the Team, College Dean and Provost at least 45 days prior to the scheduled site-visit.
5. The Team reviews the self-study, requesting additional materials as needed, and conducts a 1-2 day site-visit of the Program. The site-visit is coordinated by the VP-APUE and should include meetings with the Program faculty, staff, students and administrators.
6. The Team submits a draft report to the VP-APUE within 21 days of the site-visit for distribution to the Program. The Program representative(s) reviews the draft for accuracy and facts of omission.
7. The Team submits the final report (consisting of findings and recommendations) to the VP-APUE for distribution to the Program, College Dean and Provost within 45 days of the site-visit.
8. The Program representative(s) prepares a formal response to the Team report within 21 days and submits it to the VP-APUE for distribution to the College Dean and Provost.
9. The Program representative(s), the Program Administrator, the College Dean and the Provost hold a "follow-up" meeting to discuss final APR report (the Program's self-study, program review Team report, and program response).
10. The College Dean, in collaboration with the Program Administrator, submits to the Provost an action plan consistent with the recommendations of the APR report and how the program fits into the College mission and strategic plan. A copy of the APR report and the action plan will be forwarded to the Academic Senate.
Academic program review is a function of the Provost, in conjunction with the College Dean and the Academic Senate, and is coordinated by the VP-APUE. As required by the CSU Board of Trustees, academic programs "should be reviewed periodically at intervals of from five to ten years." While past campus practice required that program reviews be undertaken at five year intervals, the inclusion of reviews of centers and institutes suggests that the review cycle be modified. Therefore, all academic programs, including General Education, centers, and institutes will be reviewed on a six-year cycle. This schedule may be accelerated in individual cases either at the discretion of the Provost or College Dean or in compliance with recommendations from prior program reviews. In addition to the selection of reviewers, the Academic Senate will have the opportunity to suggest programs or programmatic areas for review. Wherever possible, APR’s will coincide with specialized accreditation, other mandated reviews or with reviews for new degree programs. For example, engineering programs are subject to accreditation by ABET on a six-year cycle, whereas business programs are subject to accreditation on a ten-year cycle. Hence, it is appropriate to consider that engineering programs be reviewed every six years, and that business programs be reviewed every five years. Programs in related disciplines or with similar missions should also be reviewed concurrently.

Each academic program review is conducted by a singular Program Review Team. It is expected most reviewers be knowledgeable in the discipline/field of the program under review. The Team will normally be composed of (at least) four members to be selected using the following guidelines:

- One member chosen by the Dean of the college whose program is under review. This person may be either a current Cal Poly faculty member (from a College different than that of the program under review) or an external reviewer.
- One or two current Cal Poly faculty members (from a College different than that of the program under review) chosen by the Academic Senate Executive Committee.
- Two external members representing the discipline of the program under review chosen by the President.

The composition of the Team may change when the academic program review coincides with a specialized accreditation review. In this case, it is incumbent on the individuals chosen by the Academic Senate Executive Committee to provide the necessary institutional review.

The VP-APUE will appoint one of the Team members to be Chair and will coordinate all reviews, in accordance with the established schedule, to ensure that the process is both efficient and fair.

The academic program review process can be summarized in three parts: the self-study, the review and site-visit, and the response (follow-up).

**ELEMENTS OF THE SELF-STUDY**
In preparation for the review, the Program will undertake a thorough self-study that is defined and designed by the Program faculty in conjunction with the College Dean and Provost. It establishes the program's responsibility for its own mission, purpose, and curricular planning within the context of the College and University missions. To accomplish this objective, the report should consist of two parts:

**Part I** - A inquiry-based, self-study, the content or theme of which is to be proposed by the Program and negotiated with the College Dean and Provost. An important element of the content or theme chosen for the self-study must address student learning. To accomplish this, the self-study should include the following points as appropriate or relevant to the Program mission.

- Statement of purpose, quality, centrality, currency, and uniqueness (where appropriate)
- Principles and processes for student learning outcomes and assessment methods
- Strategic plan for program development, planning and improvement

**Part II** - General information that consists of data appropriate and relevant to the Program mission. (Most of this data is part of that already required for Cal Poly's Response to the CSU Accountability Process and may be obtained with assistance from the office of Institutional Planning and Analysis.)

- Faculty, staff and students engaged in faculty research, scholarship and creative achievement, active learning experiences and academically-related community service or service learning
- Integration of technology in curriculum and instruction
- Evidence of success of graduates (e.g., graduates qualifying for professional licenses & certificates, graduates engaged in teaching, government, or public-service careers)
- Description of adequacy, maintenance and upkeep of facilities (including space and equipment) and other support services (library, and technology infrastructure)
- Alumni satisfaction; employer satisfaction with graduates

The Program will provide copies of the two-part, self-study to the VP-APUE for distribution to the Team, College Dean and Provost.
The Team will receive a copy of the Program's self-study document at least 45 days prior to a proposed site-visit. All members of the Team should read the self-study and are encouraged to request additional materials as needed. A 1-2 day site-visit will be coordinated by the VP-APUE, but travel arrangements and expenses for external reviewers are the responsibility of the College Dean whose program is under review. These might include travel, lodging, meals, and honorarium, etc.

The Team should also be provided with sufficient time to discuss among themselves how to proceed with the visit. This would preferably occur at the beginning of the site-visit. It is expected that during the site-visit, the Team will have access to faculty, staff, students and administrators, and any additional documentation or appointments deemed necessary for the completion of the review.

The Team should also be given the opportunity to meet with the Program representative(s), the Program Administrator, the College Dean and/or Provost to discuss possible outcomes of the review at the end of the site-visit. It is the responsibility of the chair of the Team to ensure that all members of the Team work together throughout the review and that the final report reflects the recommendations of all reviewers.

Within 21 days of the site-visit, the Team will provide a draft of the report to the VP-APUE for distribution to the Program. The report should address the major issues facing the program and the program's discipline within the larger context of the College and University mission and strategic plan, and should suggest specific strategies for improvement. The Program representative(s) will then review the draft report solely for accuracy and facts of omission. The final Team report (consisting of findings and recommendations) should be completed within 45 days of the site-visit and forwarded to the VP-APUE for distribution to the Program, the College Dean and the Provost.

**RESPONSE (FOLLOW-UP) TO ACADEMIC PROGRAM REVIEW**

The effectiveness of academic program review depends on the implementation of the appropriate recommendations contained in the APR report. Hence, a follow-up meeting will be scheduled by the VP-APUE, to include the Provost, the Program Administrator, the Program Representative(s), and the College Dean. The purpose of this meeting is to discuss the recommendations of the Team report, the Program's response, and to develop an action plan for achieving compliance and improvement by the program. The results of this meeting will be summarized in a written document to be prepared by the College Dean and distributed to the Program and the Provost. This document will inform planning and budgeting decisions regarding the Program. A copy of the APR report and the action plan will be forwarded to the Academic Senate. The Provost will prepare a narrative summary of Cal Poly's academic program review activity for the CSU Chancellor's Office as part of the annual reporting for the **CSU Accountability Process**, with a copy to the Academic Senate.

**PROCESS FLOWCHART FOR ACADEMIC PROGRAM REVIEW**

A visual description of the academic program review process.
College Deans and Provost select/announce the programs to be reviewed (at least one year prior to the review) and a timetable is set.

College Deans, Academic Senate Executive Committee and President appoint Program Review Team.

The Program representative(s), College Dean and Provost negotiate the content or theme of the self-study.

The Program representative(s) conducts the self-study. The self-study is distributed to the Program Review Team, College Dean and Provost at least 45 days prior to the scheduled site-visit.

The Program Review Team conducts a 1-2 day site-visit. The Team is provided access to the Program faculty, staff, students and administrators.

The Program representative(s) reviews a draft report from the Program Review Team for accuracy and facts of omission. The Team submits the final program review report for distribution to the Program, College Dean and Provost.

The Program representative(s) prepares a formal response to the Team report for distribution to the College Dean and Provost.

Program Administrator, College Dean, Provost and VP-APUE hold a "follow-up" meeting to discuss the APR report and program response.

Program Administrator and College Dean submit to the Provost an action plan for Program improvement. A copy of the APR report and action plan are forwarded to the Academic Senate.

The VP-APUE maintains a record of all academic program reviews.
### A CHECKLIST FOR ACADEMIC PROGRAM REVIEW

A sample timetable and checklist for the academic program review process is presented here. Some of these events may occur concurrently.

<table>
<thead>
<tr>
<th>TARGET DATE</th>
<th>ACTIVITY</th>
<th>RESPONSIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>October</td>
<td>Programs scheduled for review are selected and announced one year prior to the review, and a timetable is set.</td>
<td>College Deans and Provost</td>
</tr>
<tr>
<td>Prior to site-visit</td>
<td>Program Review Team is appointed.</td>
<td>College Deans, Academic Senate Executive Committee, President</td>
</tr>
<tr>
<td>Prior to site-visit</td>
<td>Participation of Team members is confirmed, Chair of Team is appointed</td>
<td>VP-APUE</td>
</tr>
<tr>
<td>Prior to site-visit</td>
<td>Content/theme of self-study is proposed and negotiated.</td>
<td>Program representative(s), College Dean and Provost</td>
</tr>
<tr>
<td>Prior to site-visit</td>
<td>Program representative(s) conducts the self-study.</td>
<td>Program</td>
</tr>
<tr>
<td>At least 45 days prior to site-visit</td>
<td>Self-study document is provided to VP-APUE for distribution to Team, College Dean and Provost.</td>
<td>Program and VP-APUE</td>
</tr>
<tr>
<td>At least 45 days prior to site-visit</td>
<td>Team reviews the Program's self-study.</td>
<td>Team</td>
</tr>
<tr>
<td>Site-visit</td>
<td>The Team conducts a 1-2 day site-visit and is provided access to the Program faculty, staff, students and administrators.</td>
<td>Team, Program, College Dean, Provost and VP-APUE</td>
</tr>
<tr>
<td>At most 21 days after the site-visit</td>
<td>Team's draft report is submitted to VP-APUE for distribution to the Program.</td>
<td>VP-APUE</td>
</tr>
<tr>
<td>At most 45 days after the site-visit</td>
<td>Program representative(s) reviews the Team draft report for accuracy and facts of omission.</td>
<td>Program</td>
</tr>
<tr>
<td>At most 45 days after the site-visit</td>
<td>Team submits final program review report to VP-APUE for distribution to</td>
<td>Team and VP-APUE</td>
</tr>
</tbody>
</table>
At most 60 days after the site visit, Program representative(s) prepares response to the Team Report and submits the response to VP-APUE for distribution to College Dean and Provost.

Within 90 days after site-visit, Follow-up meeting to discuss academic program review report.

Within 120 days after site-visit, Action plan for Program improvement is submitted to the Provost and forwarded to the Academic Senate.

October (of following year), Programs scheduled for review are selected and announced.

**TASK FORCE ON INSTITUTIONAL ACCOUNTABILITY AND LEARNING ASSESSMENT**

Anny Morrobel-Sosa, Chair (Special Assistant to the Provost, Materials Engineering)
Denise Campbell (Special Assistant to the Provost)
W. David Conn (Vice Provost for Academic Programs and Undergraduate Education)
Susan Currier (Associate College Dean, College of Liberal Arts)
James Daly (Statistics)
Myron Hood (Mathematics, Academic Senate Chair)
Steven Kane (Disability Resource Center)
Roxy Peck (Associate College Dean, College of Science and Mathematics)
Thomas Ruehr (Soil Science)

*Last modified September 28, 2000*
WHEREAS, Some students leave Cal Poly without finishing their remaining degree requirements; and

WHEREAS, There are no written guidelines for students who request to graduate on a catalog older than 10 years; and

WHEREAS, The Chancellor's Office will not allow the back dating of degrees or disclaimers on degrees indicating the majority of the coursework was finished over ten years ago; and

WHEREAS, Cal Poly has a responsibility to ensure that degrees awarded with a current date reflect learning that is reasonably up-to-date; therefore, be it

RESOLVED: Students may request to complete their degrees on a catalog older than 10 years if the only remaining degree requirements at the time they left Cal Poly do not exceed 16 units. These remaining degree requirements may include senior project, GWR, and/or USCP; and be it further

RESOLVED: The decision to approve or disapprove a student's request is based on (1) her/his willingness to commit to completing outstanding degree requirements within a specified timeframe, and (2) her/his ability to demonstrate, with written documentation, reasonable currency of knowledge and skills in her/his degree field to the satisfaction of the faculty in the applicable major, as certified by the department chair. Both the college dean and the Vice Provost for Academic Programs & Undergraduate Education must give their approval.

Proposed by: Academic Senate Instruction Committee
October 13, 2000
WHEREAS, Information technology resources are a finite shared resource provided to students, faculty, and staff to support Cal Poly's mission of education, research, and service; and

WHEREAS, The University is accountable for ensuring that its resources are used responsibly; and

WHEREAS, A clear and comprehensive policy is needed to inform the campus community about appropriate use and to enable the University to act when misuses occur; and

WHEREAS, An interim policy has been in effect since the start of Fall Quarter 2000 and is posted on the Cal Poly web site at http://its.calpoly.edu/Policies/RUP-INT/; and

WHEREAS, The policy incorporates existing University, CSU, and state policies as well as federal and state laws, reflects best practices from other universities, and provides specific examples of appropriate and inappropriate uses; and

WHEREAS, The policy recognizes and respects academic freedom, freedom of expression, and the right to privacy of individual users wherever possible; and

WHEREAS, The policy uses established University processes to address alleged violations by Cal Poly students, faculty, and staff; and will be reviewed and updated at least annually to reflect changes in policy, the law, and technology; and

WHEREAS, Information Technology Services will consult with the Academic Senate and other campus constituent groups on substantive changes to this policy and on the development of related information technology policies and practices; and

WHEREAS, The Instructional Advisory Committee on Computing (IACC), Administrative Advisory Committee on Computing (AACC), and Information Resources Management Policy and Planning Committee (IRMPPC) have endorsed the policy and recommended that it be adopted and implemented by the University; therefore, be it

RESOLVED: That the Academic Senate endorse the Information Technology Resources Responsible Use Policy and recommend that it be adopted and implemented by the University.

Proposed by: Instructional Advisory Committee on Computing (IACC)
Date: October 23, 2000
A. Scope

This policy applies to any user of the University's information technology resources, whether initiated from a computer located on or off-campus. This includes any computer and information system or resource, including means of access, networks, and the data residing thereon. This policy applies to the use of all University information technology
resources whether centrally-administered or locally-administered. Administrators of individual or dedicated University resources may enact additional policies specific to those resources provided they do not conflict with the provisions of this and other official policies and laws. Users are subject to both the provisions of this policy and any policies specific to the individual systems they use.

B. Purpose

The principal concern of this responsible use policy is the effective and efficient use of information technology resources. The primary focus is to insure that the resources are used in a manner that does not impair or impede the use of these resources by others in their pursuit of the mission of the University. This policy is intended to ensure

- the integrity, reliability, and good performance of University resources;
- that the resource-user community operates according to established policies and applicable laws;
- that these resources are used for their intended purposes; and
- that appropriate measures are in place to assure the policy is honored.

The policy is intended to permit, rather than proscribe, reasonable resource-user access within institutional priorities and financial capabilities.

This policy is intended to promote and encourage responsible use while minimizing the potential for misuse by clarifying and encompassing existing policies.

In its development, the policy has been carefully framed to avoid creating undue overhead in and of itself, or imposing broad-based restrictions on all users.

C. Guiding Principles

The following principles underlie this policy and should guide its application and interpretation:

1. Freedom of thought, inquiry, and expression is a paramount value of the Cal Poly community. To preserve that freedom, the community relies on the integrity and responsible use of University resources by each of its members.

2. Information technology resources are provided to support the University's mission of education, research and service. To ensure that these shared and finite resources are used effectively to further the University's mission, each user has the responsibility to:
   - use the resources appropriately and efficiently;
   - respect the freedom and privacy of others;
   - protect the stability and security of the resources; and
   - understand and fully abide by established University policies and applicable public laws.

D. Policy Application

As a general guideline, the institution regards the principle of academic freedom to be a key factor in assuring the effective application of this policy and its procedures and
practices. The law is another essential source of guidance. The University's roles in supporting or acting to enforce such law is also critical to how this policy will be applied.

1. All existing laws (federal, state and local) and State of California, California State University and Cal Poly regulations and policies apply, including not only laws and regulations that are specific to computers and networks, but also those that may apply generally to personal conduct. This may also include laws of other states and countries where material is accessed electronically via University resources by users within those jurisdictions or material originating within those jurisdictions is accessed via University resources.

2. The accessibility of certain University information technology resources, such as network-based services, implies a degree of risk that the existence, viewing or receipt of such information/content may be offensive. As a matter of policy, the University protects expression by members of its community and does not wish to become an arbiter of what may be regarded as "offensive" by some members of the community. However, in exceptional cases, the University may decide that such material directed at individuals or classes of individuals presents such a hostile environment under the law that certain restrictive actions are warranted.

3. The University reserves the right to limit access to its resources when policies or laws are violated and to use appropriate means to safeguard its resources, preserve network/system integrity, and ensure continued service delivery at all times. This includes monitoring routing information of communications across its network services and transaction records residing on University resources, scanning systems attached to the Cal Poly network for security problems, disconnecting systems that have become a security hazard, and restricting the material transported across the network or posted on University systems.

4. All provisions of this policy are currently in effect.

E. Policy Provisions

1. Authorized Use / Access

Access to Cal Poly's information technology resources is a privilege granted to faculty, staff and students in support of their studies, instruction, duties as employees, official business with the University, and/or other University-sanctioned activities. Access may also be granted to individuals outside of Cal Poly for purposes consistent with the mission of the University.

Access to Cal Poly information technology resources may not be transferred or extended by members of the University community to outside individuals or groups without prior approval of the Vice Provost/Chief Information Officer.

Gaining access to the University's information technology resources does not imply the right to use those resources. The University reserves the right to limit, restrict, remove or extend access to and privileges within, material posted on, or communications via its information technology resources, consistent with this policy and applicable law, and irrespective of the originating access point.

It is expected that these resources will be used efficiently and responsibly in support of the mission of the University as set forth in this policy. All other use not consistent with this policy may be considered unauthorized use.
2. Data Security, Confidentiality and Privacy

Cal Poly users are responsible for ensuring the confidentiality and appropriate use of institutional data to which they are given access, ensuring the security of the equipment where such information is held or displayed, and abiding by related privacy rights of students, faculty and staff concerning the use and release of personal information, as required by law or existing policies.

For the purposes of this policy, all institutional data processed is to be considered sensitive and/or confidential. Access to such data is based on an individual's "need to know" and is restricted to uses directly related to their assigned duties. Users are responsible for the security of any accounts issued in their name and any institutional data they may retrieve, modify, reproduce or destroy. Disclosure of confidential information to unauthorized persons or entities, or the use of such information for self-interest or advantage, is prohibited. Access to non-public institutional data by unauthorized persons or entities is prohibited.

All employees (non-student) and non-employees (including but not limited to auxiliary employees, volunteers, Military Science personnel, and exchange faculty) granted access to institutional data are required to sign a statement that they have received a copy of the University's Confidentiality-Security Policy. Refusal to sign will result in denial of access to that data and may result in demotion or dismissal if such access is an inherent part of their assigned duties. Users with access to student information further agree to abide by the University's Policy on the Use and Release of Student Information.

Electronic mail and computer files are considered private to the fullest extent permitted by law. Access to such files will generally require permission of the sender/recipient of a message or the owner of the account in which the material resides, court order, or other actions defined by law. However, in the event of a University investigation for alleged misconduct, e-mail or files may be locked or copied to prevent destruction and loss of information.

Requests for disclosure of confidential information and retention of potential evidence will be honored when approved by authorized University officials or required by state or federal law.

All users of Cal Poly's information technology resources are advised to consider the open nature of information disseminated electronically, and should not assume any degree of privacy or restricted access to such information. Cal Poly strives to provide the highest degree of security when transferring data, but cannot be held responsible if these measures are circumvented and information is intercepted, copied, read, forged, destroyed or misused by others.

3. Record Retention and Disclosure

Original electronic materials and/or copies may be retained for specified periods of time on system backups and other locations; however the University does not warrant that such information can be retrieved. Unless otherwise required by law and/or policy, Cal Poly reserves the right to delete stored files and messages to
preserve system integrity. Except in an emergency, users will be given advance notice to delete files and messages.

Electronic files or messages, whether or not created and stored on University resources, may constitute a University record subject to disclosure under the California Public Records Act or other laws, or as a result of litigation. Electronic copies must be provided in response to a public record request or legally issued subpoena, subject to very limited exceptions, as with other documents created and retained by the University.

4. Network and System Integrity

In accordance with California State Penal Code Section 502, Cal Poly's Computer Crimes Policy (URL), CSU's 4Cnet Acceptable Use Policy (URL) and other policies and laws, activities and behaviors that threaten the integrity of computer networks or systems are prohibited on both University-owned and privately-owned equipment operated on or through University resources. These activities and behaviors include but are not limited to:

- Interference with or disruption of computer systems and networks and related services, including but not limited to the propagation of computer "worms," "viruses" and "Trojan Horses"
- Intentionally or carelessly performing an act that places an excessive load on a computer or network to the extent that other users may be denied service or the use of electronic networks or information systems may be disrupted
- Processing excessively large amounts of data or excessive system utilization to the extent that these interfere with network or system performance unless authorized in advance by the administrator(s) responsible for all of the affected systems
- Failure to comply with requests from authorized University officials to discontinue activities that threaten the operation or integrity of computers, systems or networks
- Revealing passwords or otherwise permitting the use by others, by intent or negligence, of University-assigned accounts for computer and network access. Individual password security is the responsibility of each user.
- Altering or attempting to alter files or systems without authorization
- Unauthorized scanning of ports, computers and networks for security vulnerabilities or other information
- Unauthorized attempts to circumvent data protection schemes or uncover security loopholes
- Connecting unauthorized equipment to the campus network or computers
- Attempting to alter any University computing or network components without authorization or beyond one's level of authorization, including but not limited to bridges, routers, hubs, wiring, connections, etc.
- Negligently or intentionally damaging University electronic information, information technology resources, computing systems or networks
- Utilizing network or system identification numbers or names that are not assigned for one's specific use on the designated system
- Using campus resources to gain unauthorized access to any computer system and/or using someone else's computer without their permission
- Providing services or accounts on University computers or via University
networks to other users from a personal computer unless required to meet the normal activities of students working as individuals or in collaborative groups to fulfill current course requirements. University authorized business and other activities directly related to the academic mission of the University, are also excluded.

- Registering a Cal Poly address with any other domain name

The guiding principle here is the responsible use of University resources and not current or potential designs, capabilities or functionality of information technology resources including operating systems, hardware, software, and the Internet.

5. **Academic Honesty**

The University will not tolerate academic cheating, plagiarism or theft of intellectual property in any form. Users of information technology resources are expected to uphold the highest academic standards in accordance with the Campus Code of Conduct and other University policies.

6. **Commercial Use**

Use of the University's information technology resources is strictly prohibited for unauthorized commercial activities, personal gain, and private, or otherwise unrelated to the University, business or fundraising. This includes soliciting, promoting, selling, marketing or advertising products or services, or reselling University resources.

Campus auxiliary organizations are authorized to provide services and products to students, faculty and staff, and invited guests of the University through operating and service support leases. The University President or designee may authorize additional limited commercial uses under separate policy provisions. Such uses are excepted from the above prohibitions. These prohibitions are not intended to infringe on authorized uses that enable students, staff and faculty to carry out their duties and assignments in support of the University mission.

Detailed guidelines are being developed to clarify exceptions to this provision.

7. **Political Advocacy**

It is generally inappropriate for individual employees to use University resources to engage in political advocacy in election campaigns. State law generally prohibits the use of public funds for this purpose and Government Code Section 8314 makes it illegal for any state employee or consultant to use or permit others to use state resources for any campaign activity not authorized by law.

An employee can be held personally liable for intentionally or negligently violating Government Code Section 8314 for up to $1,000 per day the violation occurs plus three times the value of the unlawful use of state resources. Due to the personal nature of this activity, the State of California would not indemnify or defend the employee if an action was pursued against them for violating this statute.

The courts have yet to address the specific issue of whether an individual's use of
state supported e-mail for political purposes violates the law. While the University may choose not to be involved in deciding whether a personal communication violates this provision, other policy provisions may apply and an employee may still be subject to personal liability under the law. Employees should exercise appropriate caution prior to engaging in such activities, which may have negative consequences for them and the University.

This provision does not apply to political activities related to on-campus student government, including the conduct of student elections, or student club activities and sponsored events conducted with prior approval of the University. Such activities must comply with all other provisions of this policy, including the section on electronic communications, when using University resources.

8. Harassment

Harassment of others via electronic methods is prohibited under California State Penal Code Section 653m, other applicable laws and University policies. It is a violation of this policy to use electronic means to harass, threaten, or otherwise cause harm to a specific individual(s), whether by direct or indirect reference. It may be a violation of this policy to use electronic means to harass or threaten groups of individuals by creating a hostile environment.

9. Copyright and Fair Use

Federal copyright law applies to all forms of information, including electronic communications. Infringements of copyright laws include, but are not limited to, making unauthorized copies of any copyrighted material (including software, text, images, audio, and video), and displaying or distributing copyrighted materials over computer networks without the author’s permission except as provided in limited form by copyright fair use restrictions. The “fair use” provision of the copyright law allows for limited reproduction and distribution of published works without permission for such purposes as criticism, news reporting, teaching (including multiple copies for classroom use), scholarship, or research. For more information on this issue, see Stanford University’s Copyright and Fair Use website.

10. Trademarks and Patents

Unauthorized use of trade secrets and trademarked names or symbols, including Cal Poly's, is prohibited. Student, faculty and staff use of University information technology resources in the creation of inventions and other intellectual property that may be patented, trademarked or licensed for commercial purposes must be consistent with Cal Poly’s Intellectual Property Policy.

11. Electronic Communications

University electronic communications are to be used to enhance and facilitate teaching, learning, scholarly research, support academic experiences, to facilitate the effective business and administrative processes of the University, and to foster effective communications within the academic community.

The following activities and behaviors are prohibited on University or privately owned
equipment or networks operated on University resources:

- Altering electronic communications to hide one's identity or to impersonate another individual. All e-mail, news posts, chat sessions, or any other form of electronic communication must contain the sender's real name and/or user id.
- Initiating or forwarding electronic "chain letters".
- "Mail bombing"
- Sending unsolicited commercial advertisements or solicitations ("spam")
- Operating unofficial e-mail reflectors
- Sending messages to large numbers of users except as defined (see Large Mailings and Broadcast Messages)
- Use of system aliases by non-authorized personnel
- Use of official aliases to broadcast unofficial and/or unauthorized messages
- Use of e-mail systems to commit a crime

Cal Poly reserves the right to send electronic communications, including large group or broadcast messages, to its own users. Such official messages are permitted only if sent via authorized distribution methods to reduce the system load and should conform to the guidelines for Large Mailings and Broadcast Messages.

The University reserves the right to perform broadcast messages related to emergencies and University physical plant conditions or activities for which urgent notice is required and that will potentially affect most of the recipients. The University reserves the right to limit the size of individual messages being transmitted through University resources.

12. Web Sites

An official Cal Poly web page is one which is formally acknowledged by the chief officer of a University department or division as representing that entity accurately and in a manner consistent with Cal Poly's mission. Without such acknowledgment, a web site, regardless of content, is not "official." Official pages are the property and responsibility of the divisions that create them.

"Unofficial" information may also be posted and maintained by individual students, faculty, staff and student organizations. Cal Poly does not undertake to edit, screen, monitor, or censor information posted by unofficial authors, whether or not originated by unofficial authors or third parties, and does not accept any responsibility or liability for such information even when it is conveyed through University-owned servers.

Both official and unofficial web sites are subject to the other provisions of this policy if they use University resources such as University-owned servers and the Cal Poly network to transmit and receive information.

F. Policy Enforcement

The Vice Provost/Chief Information Officer is authorized by the President to implement and enforce this policy. The Vice Provost or designee will determine whether the policy has been violated, secure potential evidence, take action where appropriate, and refer the matter to other campus units or external agents for action as appropriate.
Enforcement will be based upon receipt by Information Technology Services of one or more formal complaints about a specific incident or through discovery of a possible violation in the normal course of administering information technology resources.

Appeals of University actions resulting from enforcement of this policy will be handled through existing disciplinary/grievance processes for Cal Poly students and employees.

G. Consequences of Non-Compliance

1. **University Informal**

   Minor infractions of this policy, when accidental or unintentional, such as consuming excessive resources or overloading computer systems, are generally resolved informally by the unit administering the resource. This may be done through e-mail or in-person discussion and education.

2. **University Formal**

   Serious incidents of non-compliance may lead to University disciplinary action under CSU and University disciplinary policies and procedures for students and employees, employee contract provisions where appropriate, private civil action, and/or criminal charges. Serious incidents of non-compliance include but are not limited to unauthorized use of computer resources, attempts to steal passwords or data, unauthorized use or copying of licensed software, repeated harassment, or threatening behavior.

   Offenders may be referred to their sponsoring advisor, department, college, supervisor, manager, program administrator, or other appropriate University office. If the individual is a student, the matter may be referred to the Office of Campus Student Relations and Judicial Affairs. If the offender is a member of the staff or faculty, the matter may be referred to Human Resources and Employment Equity or Faculty Affairs.

3. **Civil and Criminal**

   In addition to the above, inappropriate use of information technology resources may result in personal criminal, civil and other administrative liability.

H. Reporting Irresponsible or Inappropriate Use

Suspected infractions of this policy involving campuswide shared information technology resources, potentially bearing external or legal consequences for the University, or originating from an outside source, should be reported to Information Technology Services at complaints@calpoly.edu.

Information Technology Services will advise the user on what if any action to take, act directly when appropriate, and/or refer the complaint to other offices for further action. They will also assist other offices with investigations of suspected infractions when appropriate. Information Technology Services may also be contacted to report infractions when the complainant is unable, or it is not desirable, to do so through other channels.

Suspected infractions occurring on external or departmental systems should be reported to the administrator responsible for the system or network involved for further action. A copy
should be sent to complaints@calpoly.edu for tracking purposes.

There might be situations when the following additional offices/officials should be notified:

- **Supervisors, Department Heads, Deans, Administrators, Program Managers** - Human Resources and Employment Equity - Faculty Affairs - If the incident occurs in the course of employment with the University.

- **Office of Academic Records** - If the incident involves inappropriate use of Cal Poly student information. The registrar is responsible for investigating reports of Family Educational Rights and Privacy Act of 1974 (FERPA) violations and maintaining records for the Department of Education.

- **Information Security Officer - System Security Chairs** - If the incident involves inappropriate access to or use of institutional data.

- **Cal Poly University Police** - If an individual's health and safety appears to be in jeopardy or a violation of law may be involved.

System and network administrators, supervisors or offices that receive a complaint and are presented with evidence that a possible violation of the policy has occurred, should contact Information Technology Services at complaints@calpoly.edu.

I. Policy Review and Practices Oversight

The Vice Provost for Information Technology/Chief Information Officer is responsible for application and enforcement of this policy. The Acceptable Use Policy sub-Committee (AUPC) of the Information Resources Management Policy and Planning Committee (IRMPPC) shall review this policy on an annual basis, make recommendations for any changes, and provide oversight and periodic review of the practices used to implement this policy. Recommended changes shall be reviewed and approved by the Vice Provost/Chief Information Officer in consultation with the IRMPPC and the President. The current version of the policy will be posted and maintained on the Cal Poly web site.

J. Glossary and Definition of Terms


K. Specific Examples of Responsible and Irresponsible Uses

*Appendix B* - http://www.calpoly.edu/~its/Policies/RUP-INT/example.htm

L. References and Works Cited

*Appendix C* - http://www.calpoly.edu/~its/Policies/RUP-INT/refer.htm