PLEASE KEEP THIS AGENDA FOR THE MEETINGS OF

MAY 28 AND JUNE 4, 2002

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

Agenda
ACADEMIC SENATE
Tuesday, May 28 and June 4, 2002
UU220, 3:00 to 5:00pm

I. Minutes: none.

II. Communications and Announcements:
   A. Resolutions recently approved by President Baker (pp. 2-6).

III. Reports:
   A. Academic Senate Chair:
   B. President’s Office: [MAY 28] President Baker: Discussion of the May Revise and its budget implications.
   C. Provost’s Office:
   D. Statewide Senators:
   E. CFA Campus President:
   F. ASI Representatives:
   G. Other:
      [MAY 28] Bob Ambach (Foundation): Overview presentation of the Faculty/Staff Housing Program and the Cal Poly Housing Corporation.
      [JUNE 4] Susan Opava (Graduate Programs): Presentation of the proposed Research Technology Park.
      [JUNE 4] Morrobel-Sosa/Wenzl/McCutcheon (Athletics): These individuals will be present to answer questions regarding Cal Poly Athletics. A full report submitted to NCAA can be viewed at http://www.academics.calpoly.edu/ncaa.

IV. Consent Agenda:

V. Business Items:
   A. Curriculum proposal for NRM B.S. in Environmental Management and Protection: Hannings, Chair of Curriculum Committee/Thompson, NRM Professor, second reading (pp. 7-13).
   B. Curriculum proposal for Name Change to NRM B.S. in Recreational Administration: Hannings, Chair of the Curriculum Committee/Hendricks, NRM Professor, first reading (pp. 14-17).
   C. Resolution on Implementation of Information Competence: Grimes, Task Force on Information Competence, first reading (pp. 18-27).

VI. Discussion Item(s):

VII. Adjournment:
I am pleased to approve the above-entitled Academic Senate resolution. These principles are sound and objective. They will be followed in the future as we face difficult financial constraints on the CSU and University’s budgets during the significant downturn in the California economy that we are currently experiencing.

Please convey my appreciation to the Senate’s Budget and Long Range Planning Committee for its sound advice and recommendations.
State of California
Memorandum

To: Unny Menon
Chair, Academic Senate

From: Warren J. Baker
President

Subject: Response to Academic Senate Resolution AS-581-02/CC
Resolution on Distance Education Policy

Date: May 1, 2002

I am pleased to approve the above-entitled Academic Senate resolution, based upon the extensive review and consultation this important topic and innovative form of teaching has received during this academic year. Please convey my appreciation to the Academic Senate, as well as the Curriculum Committee, for its good work in this regard. By copy of this memo to both Jerry Hanley and Joe Grimes, I asked them to also convey my appreciation to the Instructional Advisory Committee on Computing for its consultation and assistance in developing this important campus policy.
To: Unny Menon  
Chair, Academic Senate

From: Warren J. Baker  
President

Subject: Response to Academic Senate Resolution AS-583-02/EC  
Resolution to Change the Bylaws of the Academic Senate Section III.B.8.(b)  
[Election of Academic Senate Representative for Part Time Employees]

I acknowledge receipt of the above-entitled Academic Senate Resolution.
To: Unny Menon  
Chair, Academic Senate  

From: Warren J. Baker  
President  

Subject: Response to Senate Resolution AS-584-02/EHS/CS  
Resolution on Name Change for Environmental Horticultural Science and Crop Science Departments  

This will formally acknowledge receipt and approval of the above subject resolution. In addition to the Senate's endorsement of the departmental name change to Horticulture and Crop Science Department, the Academic Deans' Council endorsed the proposal at its February 4, 2002, meeting. Notification has been provided to Dean Wehner, as well as to the department.

Please extend my thanks to the Senate for its prompt attention to this matter.
To: Unny Menon  
Chair, Academic Senate

From: Warren J. Baker  
President

Subject: Response to Academic Senate Resolution AS-586-02/CC  
Resolution on Proposed New Degree Program for Doctor of Education in Educational Leadership

I am pleased to approve the above-entitled Academic Senate resolution and acknowledge that the proposal for this new degree program will not be finally approved unless it is demonstrated that it has adequate funding to ensure its self-support without negatively impacting University and University Center for Teacher Education resources.
Summary of NRM's Proposal for a B.S. in Environmental Management and Protection

Purpose
The purpose of environmental management and protection is the sustainable management of environmental resources directed toward balancing the value of those resources for consumptive and non-consumptive uses for both current and future generations. The Environmental Management and Protection (EMP ENVM) degree will provide an undergraduate interdisciplinary course of study that integrates the bio-physical and social/economical/political sciences, emphasizing management and protection of ecosystem structures and processes that sustain uses of environmental resources. The EMP major will provide students with the science and management background in natural resources that, when properly integrated, can guide consumptive uses of resources in a sustainable manner.

Goals
1. Provide an interdisciplinary curriculum that integrates horizontally across ecosystem hierarchies (i.e., physical, hydrologic, biologic and socioeconomic); and vertically across disciplines (basic science, applied science, socio-economic and managerial).
2. Build a broad-based science foundation.
3. Integrate the ecosystem management interdisciplinary philosophy and decision-making framework into a common curriculum theme that promotes communication abilities.
4. Provide specialization in growing environmental careers such as wildlife biology, watershed hydrology, environmental policy and management, and bioresource waste management.

Major Curriculum
Administered by the Natural Resources Management Department, the major core including support courses consists of 92-95 89-93 units, 38 units of specialization (e.g., concentrations, minors, individualized courses of study), and 7-10 11 units of free electives. Combined with GE, the proposed major totals 186 units (see p.4 & 5, Proposal pp. 5-9). The following graphic illustrates the basic design of the major core, grouping courses by broad subject areas:

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**EMP ENVM Curriculum by Broad Subject Areas**

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>6</td>
</tr>
<tr>
<td>Chemistry</td>
<td>6</td>
</tr>
<tr>
<td>Physics</td>
<td>6</td>
</tr>
<tr>
<td>Math/Stats</td>
<td>6</td>
</tr>
<tr>
<td>Geology/Geosciences</td>
<td>6</td>
</tr>
<tr>
<td>Geology</td>
<td>6</td>
</tr>
<tr>
<td>Economics</td>
<td>6</td>
</tr>
<tr>
<td>Social</td>
<td>6</td>
</tr>
<tr>
<td>Business/Plan</td>
<td>6</td>
</tr>
<tr>
<td>Env. Quality Meas.</td>
<td>6</td>
</tr>
<tr>
<td>Policy/Law</td>
<td>6</td>
</tr>
<tr>
<td>Env. Sci. Mgmt.</td>
<td>6</td>
</tr>
<tr>
<td>Practicum</td>
<td>6</td>
</tr>
</tbody>
</table>

Units
Specialization and Two New Concentrations
Due to the breadth of subjects, theories, practices and issues associated with environmental management and protection, specialization is important. Two new concentrations are proposed:

**Bioresource Waste Management** – coursework in the biology, chemistry, design principles, and laws relating to the sustainable management of waste from point and non-point sources of pollution *(see Proposal p. 7).*

**Environmental Policy & Management** – coursework directed at understanding the social, political, legal and regulatory issues of environmental management *(see Proposal p. 8).*

In addition, Cal Poly, SLO has recently expanded the number of concentrations and minors that are oriented toward specializations of relevance to the EMP ENVM Degree proposal, such as concentrations in watershed hydrology, wildlife biology and a minor in GIS. To take advantage of these opportunities, the EMP ENVM major includes an option of an Individualized Course of Study *(see Proposal p. 8 for a listing of related, current and proposed minors and concentrations).*

Work will begin in Fall 2002 on a concentration in “Conservation of Biological Resources” in collaboration with the Biological Sciences Department.

History of NRM Department’s Leadership in Environmental Management
Beginning as far back as 1984 and endorsed by President Baker, the NRM Department has developed courses, academic programs and interdisciplinary faculty projects in environmental management. Led by Dr. James Vilkitis, the Coastal Resources Institute was formed in 1991 as a university-wide institute to conduct interdisciplinary research on environmental problems *(see Appendix E).*

The NRM Dept.’s concentration in Environmental Management has been adopted by several degree programs. Efforts to expand the Environmental Management Concentration into a baccalaureate degree began in 1996. Working with numerous Cal Poly faculty representing all colleges, except Business, and the Association of Environmental Professionals (a statewide organization of over 1200 environmental professionals), the EMP ENVM curriculum reflects a careful balance between the “hard” and “soft” sciences, theory and practice, science and management.

Need and Demand/Support
Although undergraduate degrees in “Environmental Science” or “Environmental Studies” are common in academia, there is a serious and growing need to prepare graduates with more than a scientific understanding of environmental problems but with the ability to implement and manage. With its polytechnic tradition and strength, Cal Poly possesses the right blend of faculty and curricula needed for this approach to environmental management.

Surveys of current students reveal a strong demand for the proposed EMP ENVM degree from among a broad range of majors, including NRM.

Specific conditions that reflect the need for the EMP ENVM Degree:
1. Environmental impacts from growing population in California, nation and world
2. Rapid increase of ecosystem fragmentation and invasive species
3. Legal and regulatory requirements increasingly complex and even conflicting
4. Lack of understanding by general public of environmental issues complexity
5. Shrinking land base to provide food and fiber needs and non-consumptive values
6. Growing demand for graduates with environmental knowledge and communication skills

Specific conditions that reflect the demand by students and employers for EMP ENVM Degree:
1. Student survey shows that about 37% of current FNR students would transfer to EMP ENVM.
2. About 15% of non-FNR majors would likely matriculate to EMP ENVM major.
3. Public, private, and NPO/NGO employers express high demand for EMP ENVM graduates.

In support of the last point, the following excerpts from the Letters of Support are offered:

“The range of courses offered coupled with the mission of the program coincides with my view of the current and future needs for scholarship and vocational training the environmental field.” C.W. Clark, President, Bay Foundation

“The curriculum is flexible enough to allow students with varying interest to pursue many different discipline [areas] in the life sciences [and] land sciences.” Dwight Steinert, President, AEP

“The proposed [EMP ENVM] Major contains the diverse course [of] study that will be needed in the coming decades.” Brian Stark, Deputy Directory, The Land Conservancy

“The proposed new major includes a course of study which will uniquely prepare graduates for employment with resource protection agencies such as the Regional Water Quality Control Board as well as a variety of industrial, municipal and consulting firms in the environmental management arena.” Sorrel Marks, Nonpoint Source Program Manager, CC Cal. Regional Water Quality Control Board.

Resources
No new courses or teaching resources are required for the EMP ENVM degree. A few prerequisite changes and allowances have been made (see “FNR Changes for 2003-05 Catalog” and letters of notification and other communications in Appendices I and J).
<table>
<thead>
<tr>
<th>Major Courses</th>
<th>Description</th>
<th>Units</th>
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<tbody>
<tr>
<td>FNR 140</td>
<td>Careers, Planning &amp; Seminar in NRM</td>
<td>1</td>
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<tr>
<td>MATH 118</td>
<td>Precalculus Algebra</td>
<td>4</td>
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<tr>
<td>(select one)</td>
<td></td>
<td>4</td>
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<tr>
<td>MATH 141</td>
<td>Calculus I (B1)</td>
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<tr>
<td>MATH 161</td>
<td>Calculus for the Life Sciences I (B1)</td>
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<tr>
<td>MATH 221</td>
<td>Business Calculus (B1)</td>
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<tr>
<td>Biology (select one):</td>
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<td>4/5</td>
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<tr>
<td>BIO 151</td>
<td>Introduction to Biology (B2)</td>
<td>4</td>
</tr>
<tr>
<td>BOT 121</td>
<td>General Botany (B2)</td>
<td>5</td>
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<tr>
<td>CHEM 111</td>
<td>Survey of Chemistry (B3)</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 212</td>
<td>Introduction to Organic Chemistry</td>
<td>4</td>
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<tr>
<td>PHYS 121</td>
<td>Physics (B3 &amp; B4)</td>
<td>4</td>
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<tr>
<td>SS 121</td>
<td>Introductory Soil Science (B2)</td>
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<tr>
<td>PSY 201/202</td>
<td>Introduction to Psychology (D4)</td>
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<tr>
<td>GEOL 201</td>
<td>Physical Geology</td>
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<tr>
<td>STAT 217/218</td>
<td>Applied Statistics (B.1)</td>
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<tr>
<td>BRAE 237/247</td>
<td>Field Surveying</td>
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<tr>
<td>Plant (select one):</td>
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<tr>
<td>BIO 152</td>
<td>Biology of Plants and Fungi</td>
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</tr>
<tr>
<td>BOT 238</td>
<td>Native Plant Materials</td>
<td>5</td>
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<tr>
<td>EHS 231</td>
<td>Plant Materials</td>
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<tr>
<td>FNR 208</td>
<td>Dendrology</td>
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<tr>
<td>FNR/GEOG/LA 318</td>
<td>GIS</td>
<td>4</td>
</tr>
<tr>
<td>Animals (select one):</td>
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<td>3</td>
</tr>
<tr>
<td>ASCI 329</td>
<td>Principles of Range Management</td>
<td>4</td>
</tr>
<tr>
<td>BIO 153</td>
<td>Biology of Animals</td>
<td>4</td>
</tr>
<tr>
<td>BIO 227</td>
<td>Wildlife Conservation Biology (B2)</td>
<td>4</td>
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<tr>
<td>Ecology (select one):</td>
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<tr>
<td>BIO 325</td>
<td>General Ecology</td>
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<tr>
<td>FNR 306</td>
<td>Ecology of Resource Areas</td>
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<tr>
<td>FNR 326</td>
<td>Natural Resources Economics &amp; Valuation</td>
<td>4</td>
</tr>
<tr>
<td>ENVE 330</td>
<td>Environmental Quality Control</td>
<td>4</td>
</tr>
<tr>
<td>FNR 335</td>
<td>Conflict Management</td>
<td>4</td>
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<tr>
<td>CRP/FNR 404</td>
<td>Environmental Law</td>
<td>4</td>
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<td>Area F (select one):</td>
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<tr>
<td>BRAE 348</td>
<td>Energy for a Sustainable Society (F)</td>
<td>4</td>
</tr>
<tr>
<td>ENVE 324</td>
<td>Introduction to Air Pollution (F)</td>
<td>4</td>
</tr>
<tr>
<td>FNR 412/FNR 461</td>
<td>Ecosystem Assessment Project/Sr. Project</td>
<td>4</td>
</tr>
<tr>
<td>FNR 416</td>
<td>Environmental Impact Analysis &amp; Mgmt.</td>
<td>4</td>
</tr>
<tr>
<td>FNR 465</td>
<td>Ecosystem Management</td>
<td>4</td>
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<tr>
<td>Concentrations</td>
<td>38</td>
<td></td>
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<td>Total Major</td>
<td>126-138</td>
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<table>
<thead>
<tr>
<th>Area</th>
<th>GE</th>
<th>Units</th>
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<tbody>
<tr>
<td>A.1</td>
<td>Expository Writing</td>
<td>4</td>
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<tr>
<td>A.2</td>
<td>Oral Communication</td>
<td>4</td>
</tr>
<tr>
<td>A.3</td>
<td>Reasoning, Argu., &amp; Writing</td>
<td>4</td>
</tr>
<tr>
<td>A.4</td>
<td>Math/Stat</td>
<td>0</td>
</tr>
<tr>
<td>A.5</td>
<td>Life Sciences</td>
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<tr>
<td>A.6</td>
<td>Physical Science</td>
<td>0</td>
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<tr>
<td>A.7</td>
<td>Life or Physical Science Lab</td>
<td>0</td>
</tr>
<tr>
<td>A.8</td>
<td>Literature</td>
<td>4</td>
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<tr>
<td>A.9</td>
<td>Philosophy</td>
<td>4</td>
</tr>
<tr>
<td>A.10</td>
<td>Fine &amp; Performing Arts</td>
<td>4</td>
</tr>
<tr>
<td>A.11</td>
<td>Upper-division Elective</td>
<td>4</td>
</tr>
<tr>
<td>A.12</td>
<td>Upper-division Elective (Area G)</td>
<td>4</td>
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<tr>
<td>A.13</td>
<td>American Experience</td>
<td>4</td>
</tr>
<tr>
<td>A.14</td>
<td>Political Economy</td>
<td>4</td>
</tr>
<tr>
<td>A.15</td>
<td>Comparative Social Inst.</td>
<td>4</td>
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<tr>
<td>A.16</td>
<td>Self Development (Area E)</td>
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<tr>
<td>A.17</td>
<td>Upper-division Elective</td>
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<tr>
<td>A.18</td>
<td>Technology Elective</td>
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GE = 48
Free Electives = 7-10
TOTAL UNITS = 186
### ENVIRONMENTAL POLICY & MANAGEMENT

#### A. Environmental Management Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CRP 212</td>
<td>Intro. Urban Planning</td>
<td>4</td>
</tr>
<tr>
<td>CRP 336</td>
<td>Regional &amp; Environ. Planning Foundations</td>
<td>4</td>
</tr>
<tr>
<td>ECON 431</td>
<td>Environmental Economics</td>
<td>4</td>
</tr>
<tr>
<td>ENVE 465</td>
<td>Environmental Mgmt. &amp; Urban Systems</td>
<td>2</td>
</tr>
<tr>
<td>FNR 425</td>
<td>Applied Resource Analysis</td>
<td>4</td>
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<tr>
<td>FNR 435</td>
<td>Natural Resources Policy Analysis</td>
<td>4</td>
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**Concentration Core = 22**

Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AGB 409</td>
<td>California Agricultural Law</td>
<td>3</td>
</tr>
<tr>
<td>FNR/CRP 408</td>
<td>Water Law</td>
<td>4</td>
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</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FNR 419</td>
<td>Watershed Mgmt. &amp; Restoration</td>
<td>4</td>
</tr>
<tr>
<td>FNR/REC 417</td>
<td>Rec Recreation Ping</td>
<td>3</td>
</tr>
<tr>
<td>SS 433</td>
<td>Land Use Planning</td>
<td>4</td>
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</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 318</td>
<td>Political Behavior</td>
<td>4</td>
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<tr>
<td>POLS 316</td>
<td>Political Parties and Interest Groups</td>
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Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>LA 451</td>
<td>Regional Landscape Assessment</td>
<td>6</td>
</tr>
<tr>
<td>EDES 408</td>
<td>Implementing Sustainable Principles</td>
<td>3</td>
</tr>
<tr>
<td>FNR 460</td>
<td>Advanced Applications in GIS</td>
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</tbody>
</table>

**Restricted Electives ........................................... 0-8**

**GRAND TOTAL = 38**

**Individualized Course of Study ....................... 38**

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### BIORESOURCE WASTE MANAGEMENT

#### A. Professional Electives - Core

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BIO 418</td>
<td>Limnology</td>
<td>4</td>
</tr>
<tr>
<td>BRAE 448</td>
<td>Bioconversion</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 313</td>
<td>Survey of Biochemistry &amp; Biotechnology</td>
<td>5</td>
</tr>
<tr>
<td>EDES 408</td>
<td>Implementing Sustainable Principles</td>
<td>3</td>
</tr>
<tr>
<td>ENVE 434</td>
<td>Water Quality Measurements</td>
<td>2</td>
</tr>
<tr>
<td>FNR/CRP 408</td>
<td>Water Law</td>
<td>4</td>
</tr>
<tr>
<td>MCRO 221</td>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>MCRO 342</td>
<td>Sanitary Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>SS 423</td>
<td>Soil Vadose Zone Remediation</td>
<td></td>
</tr>
</tbody>
</table>

**Concentration Core = 29**

**These are recommended courses (will not appear in catalog):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRP 438</td>
<td>Pollution Prevention &amp; Control</td>
<td>4</td>
</tr>
<tr>
<td>FNR 419</td>
<td>Watershed Mgmt. &amp; Restoration</td>
<td>4</td>
</tr>
<tr>
<td>FNR 420</td>
<td>Advanced Watershed Hydrology</td>
<td>4</td>
</tr>
<tr>
<td>PPSC 221</td>
<td>Weed Science</td>
<td>4</td>
</tr>
<tr>
<td>PPSC 311</td>
<td>Insect Pest Management</td>
<td>4</td>
</tr>
<tr>
<td>PPSC 441</td>
<td>Biological Control of Insects</td>
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</tr>
<tr>
<td>FNR 339</td>
<td>Internship</td>
<td>1-9</td>
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</table>

**Total not to exceed = 9**

#### B. Non-Point Source Pollution. Recommended Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRP 438</td>
<td>Pollution Prevention &amp; Control</td>
<td>4</td>
</tr>
<tr>
<td>DSCI 121/230</td>
<td>Intro to Dairying/Husbandry</td>
<td>4</td>
</tr>
<tr>
<td>DSCI 333</td>
<td>Dairy Cattle Mgmt., Safety &amp; Well-being</td>
<td>4</td>
</tr>
<tr>
<td>ENVE 439</td>
<td>Solid Waste Management</td>
<td>3</td>
</tr>
<tr>
<td>ENVE 465</td>
<td>Environmental Mgmt. &amp; Urban Systems</td>
<td>2</td>
</tr>
<tr>
<td>FNR 339</td>
<td>Internship</td>
<td>1-9</td>
</tr>
</tbody>
</table>

**Total not to exceed = 7**

**GRAND TOTAL = 38**

---

#### C. Point Source Pollution. Recommended Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRP 438</td>
<td>Pollution Prevention &amp; Control</td>
<td>4</td>
</tr>
<tr>
<td>ENVE 439</td>
<td>Solid Waste Management</td>
<td>3</td>
</tr>
<tr>
<td>ENVE 465</td>
<td>Environmental Mgmt. &amp; Urban Systems</td>
<td>2</td>
</tr>
<tr>
<td>FNR 339</td>
<td>Internship</td>
<td>1-9</td>
</tr>
</tbody>
</table>

**Total not to exceed = 4**

**GRAND TOTAL = 38**
The following are responses to questions asked and points raised during the 1st Reading:

1. Minimal free electives.

The range of free electives has been revised to reflect the correction on the credit units of ASCI 329 (1 of 3 courses option under the Animals rubric). The low end of this range results from students taking the BIO 150 series. The letter of support and agreement between BioSci and NRM (see Appendix J, p. 85) describes the reason for this course sequence. Students pursuing the BWM concentration (or other specialization like Wildlife Biology) will be advised to take the BIO 150 series even though these 5 unit courses reduce the number of free electives by 3 units. (Also refer to Question #8 response)

2. Unit subtotals did not add-up (addressed and repaired during first reading).

The requirement by the Curriculum Committee to include MATH 118 forced us to reduce the concentrations by 2 units and drop a 2 unit course from the major core. The subtotal for the major and concentrations was not updated. The current proposal reflects the correct subtotals.

3. EMP abbreviation conflicts with the dual masters degree in Engineering Management Program.

We propose to use the abbreviation, ENVM.

4. Incorporation of EDES 406 (Sustainable Environments).

During discussions with Dale Sutliff (LA Chair and co-sponsor of ENVM proposal), he indicated that EDES 406 would not meet our curricular need, hadn't been taught for some time, and was in the process of being re-evaluated. Along with many other LA and CRP courses in the proposed major, he indicated that EDES 408 would be a better course to include in the EPM Concentration under the optional course set. (It was stated during the 1st reading that EDES 406 was a prerequisite to 408, but the 2003-05 catalog shows that it is not. EDES 408 prerequisite is "3rd year standing or consent of instructor." )

5. Jonathan Beckett suggested ASCI 329 should be required rather than 1 of 3 course choices under the Animals rubric.

We disagree. During discussions with numerous faculty from other Colleges and professional advisors (e.g., AEP), retaining flexibility in the major core under broader subject areas is critical for many reasons, least of which is the proper selection of prerequisite courses depending upon the student’s specialization interests. ASCI 329 would be recommended for students interested in the Rangeland Resources minor. Furthermore, the study of the grassland biome (including domestic livestock uses) is covered within courses in the major, e.g., FNR 306 and 412.

6. The purpose of the term “Protection” in the major title was questioned.

There is a lengthy discussion under the Purpose, Goals and Objectives section of the full proposal (p. 2). In general terms, management is directed at achieving human objectives while
protection is directed at preventing resource degradation. Environmental management and protection must strive to balance those interests for the benefit of people and the environment, simultaneously. Environmental protection should not imply non-use/preservation, although there are unique environmental resources that society occasionally chooses for “non-use.” Even then, management is needed since all land uses and values fit within and affect ecosystem values.

7. Interest was raised over possible similarities to existing degrees at Cal Poly.

Section 2 of the proposal deals almost entirely with this matter (see pages 11-17). To summarize, the following figure (Figure 1 from p. 14) illustrates the similarities and dissimilarities between the proposed ENVM major and three majors with an environmental orientation to the curriculum.

![Figure 1. Comparison between Earth Science (ERSC), Ecology & Systematic Biology (E&SB), Forestry & Natural Resources (FNR), and the proposed Environmental Management & Protection (ENVM) Degree Programs. Subject areas on the x-axis group disciplines in order to cover the breadth of curricula.](image-url)

8. Considerable discussion occurred over the MATH 118 requirement.

We understand the concerns over math preparedness of students matriculating to the ENVM program and the perceived “hidden prerequisite” effect by giving credit for calculus only. However, this requirement has modified what was a very carefully balanced, interdisciplinary curriculum design.
Memorandum

To: California State University Campuses  
Date: November 25, 2001

Subject: Support for Recreation Administration degree program name change

The purpose of this letter is to confirm our endorsement, as a unified group of Recreation Administration chairs, heads, and coordinators, of an undergraduate degree name change on participating California State University campuses from “Recreation Administration” or “Recreation” (the existing degree names) to “Recreation, Parks, and Tourism Administration” or “Recreation, Parks, and Tourism.”

This proposal is based on the evolution of recreation administration degree programs nationwide. Thirty years ago, we primarily focused on student preparation for management of municipal and non-profit recreation programs. Our discipline now embraces an ever-growing expansion of the field to include park management and management of the tourism industry. In essence, we prepare students for careers that involve the management of leisure experiences in recreation, parks, and tourism settings that leads to economic, personal, environmental, social and community benefits. “Recreation, Parks, and Tourism Administration” is a more appropriate descriptor of the academic preparation our students will receive in the future and the careers they pursue.

The programs below support campuses seeking approval for a degree name change. This change will not effect the current degrees offered by any campuses that wish to remain status quo with a degree title. If you have any questions please contact the representative from your campus.

Sincerely,

William W. Hendricks  
Cal Poly, SLO

Emilyn A. Sheffield  
CSU, Chico

John Crossley  
CSU, Fresno

Michael A. Blazey  
CSU, Long Beach

Veda Ward  
CSU, Northridge

Steve Gray  
CSU, Sacramento

Gene G. Lamke  
San Diego State

Ginny Jaquith  
San Francisco State
Degree Program Name Change Proposal
Academic Senate Three Page Justification
Recreation Administration Program

Proposal to change degree program name to
"Recreation, Parks, and Tourism Administration"

This proposal presents the need to change the Recreation Administration degree program title to more accurately reflect the academic preparation and careers pursued by our students and to propose a new name of "Recreation, Parks, and Tourism Administration." The College of Agriculture Curriculum Committee and Dean David Wehner has approved the proposal.

The evidence below has two purposes: (1) to demonstrate a concerted effort among many CSU Recreation Administration programs to support a change in degree titles to "Recreation, Parks, and Tourism Administration" or "Recreation, Parks, and Tourism" and (2) to show that a change for the Cal Poly program is essential and overdue.

The CSU Campuses
At the 2000 California Society of Park and Recreation Educators Conference a session was held to discuss a possibility of a degree name change in the CSU. Over the next year, eight accredited programs agreed to support a change in degree title to "Recreation, Parks, and Tourism Administration" or "Recreation, Parks, and Tourism." One program is still in deliberations, and two programs (unaccredited) have decided to remain status quo based on the emphasis of their programs on recreation and community service.

Conversations were also occurring with personnel from the Chancellor’s office. It was recommended that a letter of support (see attached) signed by chairs/heads/coordinators from each campus accompany individual program efforts at their universities. It was also stressed that programs must demonstrate content related to recreation, parks, and tourism in the major core.

The eight aforementioned programs that support a title of Recreation, Parks, and Tourism Administration, are in various stages of incorporating each of these three components of our field into their major core. Two programs that have signed the letter to support the name change are uncertain of when it might be best for them to move forward with a proposal. Also, based on politics on individual campuses, some programs intend to pursue a change to "Recreation, Parks, and Tourism Administration" while others will pursue "Recreation, Parks, and Tourism."

The Need to Change at Cal Poly
The Recreation Administration faculty has always embraced change, which in part, has lead to the incredible student demand for the program. The university recognizes the program as an academic unit with growth potential as evidenced by retention and graduation rates and because more than 50% of qualified applicants to the program were denied admission in 1998 and 1999. However, contrary to this success, one area that the program has fallen behind in, is offering a degree and program title that is consistent with the content of the curriculum, the expertise of the faculty, the careers of the program’s graduates, and trends in the industry.
Cal Poly is the only program or department remaining in the CSU that still has a program/department name of Recreation Administration. For example, the Department title at CSU, Chico is Recreation and Parks Management and the Department title at San Diego State University is Recreation, Parks and Tourism (both of these have degrees of Recreation Administration). To keep pace in attracting quality faculty and students, the program must adopt a degree title that provides more visibility and attractiveness to prospective students, faculty and donors.

The content of the curriculum already embraces the three areas of the proposed name change: management/administration of recreation, parks, and tourism. The table below shows changes to courses since the 1994-97 catalog. Additional minor revisions as shown in the second table are being proposed for the 2003-2005 catalog to more accurately reflect our curriculum content in recreation, parks, and tourism administration.

<table>
<thead>
<tr>
<th>Course</th>
<th>94-97 Catalog</th>
<th>01-03 Catalog</th>
</tr>
</thead>
<tbody>
<tr>
<td>REC 101</td>
<td>Introduction to Recreation and Leisure Services</td>
<td>Introduction to Recreation, Parks and Tourism</td>
</tr>
<tr>
<td>REC 310 became REC 360</td>
<td>Program Administration in Leisure Services</td>
<td>Assessment and Evaluation of Recreation, Parks and Tourism</td>
</tr>
<tr>
<td>REC 324</td>
<td>&quot;...legal aspects of public, private, commercial and non-profit leisure services agencies&quot;</td>
<td>&quot;legal aspects of public, private, commercial and non-profit recreation and tourism agencies&quot;</td>
</tr>
<tr>
<td>REC 327 became REC 127</td>
<td>&quot;Cultural diversity as it relates to recreation and leisure.&quot;</td>
<td>&quot;Cultural diversity as it relates to recreation and tourism and the natural resources.&quot;</td>
</tr>
<tr>
<td>REC 460</td>
<td>Research in Recreation Administration</td>
<td>Research in Recreation, Parks and Tourism</td>
</tr>
<tr>
<td>REC 305</td>
<td>Not present in curriculum</td>
<td>Recreation Areas and Facilities Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;Management of recreation areas and facilities:...facility and outdoor area site planning&quot;</td>
</tr>
</tbody>
</table>

Note: Description changes are in italic, course title changes are regular font.

<table>
<thead>
<tr>
<th>Course</th>
<th>01-03 Catalog</th>
<th>03-05 Catalog</th>
</tr>
</thead>
<tbody>
<tr>
<td>REC 110</td>
<td>Career Development and Planning in Recreation Administration</td>
<td>Career Planning in Recreation, Parks, and Tourism</td>
</tr>
<tr>
<td>REC 324</td>
<td>Legal and Legislative Patterns in Recreation Administration</td>
<td>Legal Aspects of Recreation, Parks, and Tourism</td>
</tr>
<tr>
<td>REC 405</td>
<td>Management and Leadership for Recreation Administration</td>
<td>Recreation, Parks, and Tourism Management</td>
</tr>
<tr>
<td>REC 424</td>
<td>Financing Recreation Services</td>
<td>Financing Recreation, Parks, and Tourism Services</td>
</tr>
</tbody>
</table>

Perhaps one of the most convincing arguments to consider this proposal is in the careers that our graduates pursue. As diverse as these careers seem, they once again represent each of the three areas: recreation, parks, and tourism.
- Recreation Superintendent, Douglas County Parks and Recreation
- Program Coordinator, North Bakersfield Recreation and Park District
- Recreation Coordinator, San Luis Obispo Parks and Recreation
- Park and Recreation Specialist, California State Parks
- Outdoor Recreation Planner, Bureau of Land Management
- Park Ranger, California State Parks
- Forest Protection Officer, U.S. Forest Service
- Industrial Relations Manager, California Travel and Tourism Council
- Director of Sales and Marketing, Inn at Morro Bay
- Coordinator, Newport Conference and Visitors Bureau
- Marketing Director, Bonfante Gardens Theme Park
- Recreation Director, Hotel del Coronado
- Owner/Manager Sea for Yourself Kayaks
- Marketing Coordinator, Diamond Peaks Ski Resort
- Assistant Director of Information Services, San Luis Obispo Chamber of Commerce

The NRPA/AALR Accreditation Standards also provide evidence of course content in recreation and parks management. Examples of accreditation standards of professional competencies required in our major core that reflect recreation and parks management content include:

- 8.05 Knowledge of the interrelationship between leisure behavior and the natural environment.
- 8.06 Understanding of environmental ethics, the relationship of environmental ethics to the philosophy of planning, design and development, and the potential impact of planning, design and development upon the environment.
- 8.12 Understanding of and ability to use diverse community, institutional, natural, cultural and human service resources to promote and enhance the leisure experience.
- 8.23 Understanding of principles and procedures for planning leisure services and assessing and evaluating, resources, areas, and facilities, and associated environmental impacts.
- 8.24 Knowledge of principles and procedures for proper social, cultural and environmental design of leisure services, areas, and facilities.
- 8.32 Understanding of and ability to implement principles and procedures related to operation and care resources, areas, and facilities.
- 8.37 Knowledge of the legal foundations and responsibilities of leisure service agencies, and of the legislative process and the impact of policy formation on leisure behaviors and service in all levels of government, community organizations, and business enterprise.

A final area of endorsement for a degree program name change at Cal Poly comes from industry. Eighteen letters of support for our proposal from individuals in the recreation, parks, and tourism sectors have been received. These letters are available for review. They emphasize the visibility, networking and perceived value in revising our name.

Higher education academic programs must be cognizant of societal changes and the career opportunities available to students. We prepare students for careers in recreation, parks, and tourism settings that lead to economic, personal, environmental, social and community benefits. Recreation, Parks, and Tourism Administration is a more appropriate descriptor of the academic preparation our students receive and the careers they will continue to pursue.
RESOLUTION ON IMPLEMENTATION OF INFORMATION COMPETENCE

WHEREAS, Western Association of Schools and Colleges (WASC) requires Information Competence to be an education objective of the curriculum; and

WHEREAS, The Academic Senate of the CSU has endorsed the position paper on "Information Competence" through resolution AS-2409-98/AA ("Information Competence: A University-wide Responsibility") and recommended that campus senates develop a comprehensive university-wide policy on information competence; and

WHEREAS, Many universities and in particular, several within the CSU have made Information Competency an outcome requirement of their curriculum; and

WHEREAS, Through resolution AS-463-96/CLS ("Resolution on Information Competence") Cal Poly's Academic Senate specified that Cal Poly students should arrive with certain information competency skills and should leave with enhanced skill, and that this should be accomplished with the integration of information competency skills into all levels of instruction; and

WHEREAS, Given that it is not currently possible to determine whether or not Cal Poly students have attained an appropriate information competency skill level, the Academic Senate Executive Committee authorized the Vice Provost for Academic Programs and Undergraduate Education to establish whatever committee is necessary to ensure that an Information Competency proposal be brought to the Academic Senate by date certain; therefore be it

RESOLVED: That the Academic Senate accept and endorse the implementation process proposed in the attached "Information Competence Implementation Plan."

Proposed by: Task Force on Information Competence
Date: May 22, 2002
INFORMATION COMPETENCE IMPLEMENTATION PLAN*

May 1, 2002

(*Adopted from a SUNY document: http://www.sunyconnect.suny.edu/ili/final.htm)

submitted by:
Paul Adalian - Information Competency Committee,
Sema Alptekin - Instructional Department Heads and Chairs' Council
Stacey Breitenbach - Academic Senate Instruction Committee
David Conn - Vice Provost for Academic Programs and Undergraduate Education,
Hiram Davis - Dean of Library,
Joe Grimes - Center for Teaching and Learning Advisory Council and Instructional Advisory Committee on Computing,
Jerry Hanley – CIO,
David Hannings - Curriculum Committee
Anny Morrobel-Sosa – Interim Associate Vice Provost for Academic Programs
Jim Mueller - General Education Steering Committee,

Executive Summary

This document provides the definition of a process to be used to implement the incorporation of Information Competence (IC) in the curriculum at Cal Poly. The implementation is necessary in order to assure that students have appropriate IC at the time of entry to the University, as they proceed through their curriculum, and upon graduation. This implementation plan is necessary to assure that the Academic Senate “Resolution on Information Competence,” approved by the President, is implemented and to fulfill the accreditation requirements of WASC. This implementation will assure that students will have entry level IC skills and will leave with enhanced skills.

The IC outcomes are provided in detail in this implementation plan and summarized in Appendix A. Representatives of the following committees and units should be engaged with IC and should fulfill their appropriate role in assuring that IC outcomes are defined at Cal Poly and that an assessment process be implemented to assure that outcomes are being achieved. Additional committees and units should be added when appropriate.

1. IC Committee
2. Academic Senate Curriculum Committee
3. Academic Senate Instruction Committee
4. Instructional Advisory Committee on Computing
5. Center for Teaching and Learning Advisory Council
6. Director of the General Education Program
7. Library
8. Information Technology Services
9. Vice Provost for Academic Programs

The following summarizes the actions to be taken using the Appendix A definition of IC broad-based guideline. Consideration should be provided for the different levels at which
students will enter the University (beginning freshmen and transfers).

1. The process should be as efficient as possible. The curriculum at Cal Poly should include IC outcomes for every student.
2. A definition of minimal IC skill level (general to all students and specific to a discipline) should be established and developed for students at all levels.
3. An entry-level assessment process should be established to determine if the entry-level students have attained the minimal competencies.
4. For entry-level students who do not demonstrate minimal competencies, a process for remediation should be established.
5. All students should demonstrate IC skills appropriate to their discipline prior to graduation.
6. The support for providing the IC curriculum should be implemented.
7. An assessment of student learning must be established to assure that students have attained the desired IC skill level when they enter the University, as they progress through their curriculum, and when they graduate.

The IC Implementation Plan contains the following sections:
- A list of desirable learning outcomes for IC;
- Steps to be used to implement a Cal Poly-wide IC initiative;
- A strategy to promote the adoption of the desired IC outcomes across the curricula;
- An advocacy program that publicizes to Cal Poly faculty the principles of IC, especially in relation to accreditation. The intended audience is librarians, Information Technology Services (ITS), the Academic Senate, Administrators, and other appropriate groups;
- A mechanism for sharing best practices in IC across the campus.

**Implementation Plan Elements**

1. **IC Learning Objectives** -- The elements identified as IC requirements below are those that should be achieved across the curriculum and should be continually reviewed for currency. Discipline specific competencies should be based on broader competencies and developed in cooperation with faculty of the discipline. Definition of IC constitutes the abilities to recognize when information is needed and to locate, evaluate, effectively use, and communicate information in its various formats.

   **Competency 1: To recognize the need for information.**
   **Indicators**
   - Recognizes that accurate and comprehensive information is the basis for intelligent decision making.
   - Frames appropriate questions based on information needs.
   - Defines a manageable focus and timeline.

   **Competency 2: To access information from appropriate sources.**
   **Indicators**
   - Understands and can use the variety of information sources available, including: Internet, CD-ROM interfaces, electronic library catalogs, microformats, and print materials.
• Identifies a variety of potential sources of information.
• Can select those sources that are appropriate to a given need.
• Develops efficient and effective search strategies.
• Consults experts for assistance/guidance when needed.
• Understands standard systems of information organization.
• Identifies and retrieves information relevant to the question/need.

Competency 3: To develop skills in using information technologies.

Indicators
• Can access the campus information systems and understands how to access information networks.
• Can access the Internet, and can navigate the information highway to locate information appropriate to the need.
• Uses group communication methods, support mechanisms, discussion groups for information gathering feedback, and interaction.
• Can effectively expand or narrow a search as needed.
• Understands and can use support tools as appropriate.
• Can manage and transfer electronic information.

Competency 4: To critically analyze and evaluate information.

Indicators
• Synthesizes large amounts of information.
• Determines accuracy, relevance, and comprehensiveness of information.
• Assesses the reliability and accuracy of information.
• Distinguishes among facts, points of view, and opinion.
• Critically thinks about the content of information.
• Understands the process of knowledge generation and publication patterns in appropriate disciplines/fields.
• Work with other people to recognize when information is needed and to locate, evaluate, effectively use, and communicate information in its various formats.

Competency 5: To organize and process information.

Indicators
• Synthesizes information from a variety of sources.
• Integrates new information into one's own knowledge base.
• Makes inferences and connections, and draws conclusions.
• Organizes information for practical application.

Competency 6: To apply information for effective and creative decision-making.

Indicators
• Applies information in critical thinking and problem solving.
• Creates new information or knowledge through synthesis.
• Produces quality products appropriate to specific needs.

Competency 7: To generate and effectively communicate information and knowledge.

Indicators
• Produces and communicates information in effective and appropriate
forms.
- Disseminates information in appropriate modes.
- Evaluates the effectiveness/success of products developed and presented.

**Competency 8: To understand and respect the ethical, legal, and socio-political aspects of information and its technologies.**

*Indicators*
- Respects the principles of equitable access to information.
- Respects intellectual property rights.
- Applies principles of academic honesty in use of information.
- Acknowledges works of others through accurate citations and references.

**Competency 9: To develop an appreciation of attributes lifelong learning.**

*Indicators*
- Understands that information searching requires time, diligence, and practice, and that skills are learned over time.
- Increases self-confidence with practice and experience in information seeking.
- Recognizes that the information search process is evolutionary and changes during the course of investigation.
- Knows that careful and attentive scrutiny of information tools and resources is essential to success.
- Appreciates that IC requires an ongoing involvement with learning and information technologies so that independent lifelong learning is possible.
- Extends their skills as the resources and environment change.

2. **Campus Implementation**

Develop a process to implement a campus-wide initiative to incorporate IC into the curriculum. Techniques used to implement Writing (WINGED) or Community Based Learning initiatives are a model for implementing an IC.

*Recommendations*
- The University must provide the technological infrastructure to support access to information in all formats and to utilize computer technologies optimally in teaching and research.
- The Center for Teaching and Learning, Library, and ITS can provide a support/leadership function, much as a campus writing center provides support/leadership for writing programs
  - Funding should be made available to provide time for course instructors and support professionals to integrate IC into the courses by:
    - Seeking out grants and other funding.
    - Arranging for workload shifting.
    - Collaborating on development of curricular modules/assignments.
- Efforts to involve faculty should include:
  - Incorporate IC into small, specialized classes that faculty find appealing to teach.
- Emphasize IC as a selling point for recruiting students to their department's program.
- Explore possibilities of getting grant money for joint projects with individual departments.
- Obtain funding for the University to acquire necessary infrastructure to enhance ability of departments to incorporate IC in their courses.
- Consider increase in WTU credit hours for a course that is IC intensive.
- Propose course load shifting for faculty who teach IC intensive courses.
- Find resources to make assigned time or extra stipend available for faculty willing to develop an IC class.
- Provide resources and support for faculty:
  - Provide a brochure detailing IC competencies and accreditation requirements and distribute them widely.
  - Provide access to training sessions, discussion groups, and brown bag lunch speakers’ series.
  - Provide access to resources through a web site.
  - Assure cooperation and support of library and ITS staff.
  - Provide technical support, i.e.: computing connections, hardware and software support.
  - Provide examples of successful IC projects.
  - Assist the Center for Teaching and Learning to promote IC across the curriculum and to develop training for faculty. Faculty training programs would be helpful as 'refreshers' for faculty who want to update their own IC skills.
  - Produce a video on value of IC for presentation in workshops and other meetings.
- Recommendations for developing funding for programs:
  - Approach outside foundations and corporations for funding for programs. These companies will be hiring graduates and will need them to be information literate.
  - Develop a campus-wide fund raising approach to large foundations and firms.
  - Library Dean should work with campus advancement office to approach organizations for their own campus programs.
  - Explore campus resources for funding resources that would be appropriate to Information Competence programs, i.e.: Faculty development, new course development, undergraduate education initiatives.
  - Involve the campus advancement office and Research and Graduate Programs offices in support of acquiring grants.
- Work with a wide range of campus groups to develop a broad base of support.
  - Recommend that representative from CSU Council of Library
Directors address this topic and ask for cooperation and input at a meeting of the CSU VPs for Academic Affairs.

- Library directors should work with Academic VPs and other appropriate campus personnel to increase awareness of the importance of IC.
- Library directors/library staff should involve campus governance groups, departmental faculty groups, academic councils, etc., by:
  - Addressing these groups at their regular meetings
  - Advocating appointment of librarians appointed to appropriate committees.
  - Working with already established committees that may be addressing similar issues.
- Presentations to Cal Poly Academic Senate should provide information about IC.

Representatives of the following committees and units should be engaged with IC and should fulfill their appropriate role in assuring that IC outcomes are defined at Cal Poly and that an assessment process be implemented to assure that outcomes are being achieved. Additional committees and units should be added when appropriate.

- IC Committee
- Academic Senate Curriculum Committee
- Academic Senate Instruction Committee
- Instructional Advisory Committee on Computing
- Center for Teaching and Learning Advisory Council
- Director of the General Education Program
- Library
- Information Technology Services
- Vice Provost for Academic Programs

Campus plans should identify methods for incorporating IC into distance and distributed learning programs.

3. Faculty Awareness of Importance

There is a need to develop strategies to bring the importance of IC to the attention of faculty. The introduction of Writing (WINGED) and Community Based Learning may be used as a model for doing this. This can be coordinated by a partnership between the Center for Teaching and Learning, Library, and ITS. An assessment component must be developed. The following are recommendations for accomplishing this:

**Recommendations**

- Establish a Cal Poly web site for IC and seek CSU assistance in doing this.
- Develop discipline-independent IC modules that faculty can incorporate into courses.
- Promote adoption of IC through established programs of the Center for Teaching and Learning, Library, and ITS
- Encourage grants for IC integration into courses.
• Create workshops to inform faculty of IC objectives.
• Maximize use of electronic publications to keep Cal Poly faculty aware of developments.
• Institute equipment and infrastructure incentives for faculty who develop courses that include IC competencies.

4. Advocacy Program for Cal Poly Faculty

Develop an advocacy program that publicizes to Cal Poly faculty the principles of information literacy, especially in relation to accreditation.

Recommendations
• Recommend that the Council of Library Directors work with CSU-wide and local campus offices in charge of conducting outcome surveys of graduates in order to have key questions regarding IC added to the surveys.
• Establish a CSU task force of faculty/librarians/ITS with assessment expertise to develop effective tools or processes to assess the impact of IC curricular components and programs over the course of the undergraduate experience.
• Prepare a brochure listing IC competencies and accreditation standards for wide distribution.
• Develop an IC web page with resources to aid faculty in developing courses and assignments.
• Produce a video on value of IC for presentation in workshops and other groups.
• Make presentations to wide range of campus groups, bringing in outside speakers and campus faculty who have been successful in implementing IC courses and assignments.
• Produce a Power Point or Web presentation that faculty/staff/administration can use in meetings to promote IC, e.g.: "why you need IC skills."
• Recommend that Council of Library Directors and CIOs work with CSU central administration to emphasize importance of IC to campus VPs and Presidents.
• Contact faculty who are already incorporating IC skills into their courses. Find out how they're doing it and what helped them be successful, and what else could be made available to them to assist in the process.
• Provide forums (conferences, campus visits, etc.) for effective teachers (librarians or teaching faculty) in order to demonstrate methods of incorporating IC into the curriculum.

5. Share Success Stories

Share information about successful and model programs across the Cal Poly campus via the Web and Listservs

Recommendations
• Develop a Web page to disseminate information about IC and assist faculty to incorporate IC into their courses.
• Proposed contents of Web page to include:
> definition of IC
> list of competencies, examples of effective and ineffective assignments meant to teach
> competencies
> invitation to faculty to submit assignments as examples
> bibliography of resources, including articles about poor information skills of graduates
> a discussion/listserv forum for the topic
> Discussion of issues through various listserv groups
Appendix A

Information Competence Guidelines

Students must develop the ability to find, evaluate, use, synthesize, and communicate information.

1. State a research question, problem, or issue.
2. Determine the information requirements for a research question, problem or issue, and formulate a search strategy that will use a variety of resources.
3. Evaluate, select, and use the appropriate traditional and new technologies to:
   - locate and retrieve relevant information in various formats and from various media,
   - organize and store information,
   - analyze and evaluate information,
   - synthesize information,
   - communicate information effectively using appropriate tools.
4. Analyze and utilize the ethical, legal and sociopolitical issues surrounding information and information technology.
5. Create presentations that subscribe to the points of view, and practices employed in the presentation of information received from various media.
6. Extend their skills as the resources and environment change.