MEETING OF THE ACADEMIC SENATE
Tuesday, December 5, 2006
UU220, 3:10 to 5:00pm

(Continuation of November 28, 2006 Academic Senate meeting)

Time Certain

I. Minutes: Approval of minutes for the October 31 and November 28, 2006 Academic Senate meeting (2-7).

II. Communications and Announcement(s):

III. Reports:
- Regular reports [Please limit to 3 minutes or less]:
  A. Academic Senate Chair:
  B. President’s Office:
  C. Provost:
  D. Statewide Senate:
  E. CFA Campus President:
  F. ASI Representative:

- Special reports [Please limit to 15 minutes or less]:

IV. Consent Agenda:

V. Business Item(s):

  3:15 A. Master of Science in Economics: Hannings, chair of Curriculum Committee, first reading (pp. 8-10).

  B. Recommendation of Academic Senate Curriculum Committee to approve Physics 141 [Recommended proposal: Replace PHYS 131 General Physics (3 lectures, 1 lab) with PHYS 141 General Physics IA (4 lectures)]: Hannings, chair of Curriculum Committee.

  4:00 C. Resolution on Cal Poly Learning Objectives: Academic Senate Executive Committee, first reading continued (pp. 11-12).

VI. Discussion Item(s):

VII. Adjournment:
Preparatory: The meeting was called to order at 3:14 p.m.

I. Minutes: none.

II. Communications and Announcements:

Giberti welcomed Cheryl Ney, Associate Vice Provost for Academic Programs.
November’s Social Hour will be hosted by the President’s Office. It is scheduled for Thursday, November 16, from 4-6 p.m. at the University House patio.

III. Reports:

Regular reports:

A. Academic Senate Chair (Giberti):

A reminder was given that meetings of the Academic Senate are conducted in accordance with Robert’s Rules of Order. The format for responding to reports is as follows: those giving reports are sharing information, therefore, the proper response to a report is a question not a debate; senators may speak twice on any issue but not again until everyone has also had the opportunity to speak twice; address the Chair when speaking; speakers must be recognized by the Chair before speaking.

The Chair attended the first meeting of the Access to Excellence Steering Committee. This committee will oversee the drafting of a new strategic plan that will succeed the “Cornerstones” initiative developed in the late 1990s. The focus of the meeting was to identify subject areas and formulate questions to be used in organizing campus conversations scheduled to begin in November. Included in these discussions will be the Academic Senate, K-12 educators, members of advisory committees, staff, and administration. Starting at 8:00 a.m. tomorrow and ending at noon on Friday, the members of the steering committee will hold a public web-based meeting to discuss questions and provide the public an opportunity for input. Background material can be viewed online at:

http://www.calstate.edu/system_strategic_planning/resources.shtml

B. President’s Office (Howard-Greene):

Next week’s elections include a number of initiatives, including Proposition 1D, that will provide funding for the planning and design of the science center.

C. Provost: [see Special Reports]

D. Statewide Senate (Hood):

A CSU conference on student academic success will take place at LAX on October 19 and 20, 2006.

A resolution passed that aligns the UC and CSU science requirement for incoming freshmen. The proposal drops the life science requirement, making every UC-eligible student a CSU-eligible student as well.
E. CFA Campus President (Saenz):
   A CFA delegate assembly met in Sacramento last week and passed a resolution permitting
   its bargaining team to call for a membership vote authorizing job actions if needed.
   Mediation is scheduled to begin November 9.
   CFA is planning a big rally on November 15 at the Board of Trustees office in Long
   Beach. All supporters of the faculty are invited to attend.
   CFA and CSU have reached a settlement on FMI and SSI grievances. Letters will go out
   November 30 to those who are eligible to receive an FMI or SSI.

F. ASI Representatives (Samarin):
   Last Wednesday, ASI approved a resolution in support of Proposition 1D.
   James LoCascio will serve as Academic Senate representative to the ASI Board of

G. Other: none.

Special reports:
A. Durgin: Provost Durgin’s PowerPoint presentation can be viewed at
   http://www.calpoly.edu/~acadsen/Documents/Institutional%20Priorities.ppt

B. Detweiler:
   Since Cal Poly does not have mandatory advising, there are some students who do not
   know who their advisors are. Advising has not been consistent across departments. Cal Poly needs
   to improve in the area of student advising without having the responsibility fall exclusively to
   faculty.
   The emphasis of sustainability is getting a lot of encouragement from faculty members and
   students, however, one of the problems Cal Poly has with adding a sustainability component to the
   curriculum is that there are many majors with high-unit requirements and Cal Poly’s general
   education component is also a high-unit program. We can, however, adjust the current package to
   include sustainability components in Area F.

IV. Consent Agenda: none.

V. Business Item(s): none.

VI. Discussion Item(s):
A. Cal Poly Mission Statement:

   CAL POLY MISSION STATEMENT

   Cal Poly fosters teaching, scholarship, and service in a learn-by-doing
   environment where students and faculty work closely together. As a
   polytechnic university, Cal Poly emphasizes the application of theory to
   practice. As a comprehensive institution, Cal Poly provides a balanced
   education in the arts, sciences, and technology while encouraging cross-
   disciplinary and co-curricular experiences. As a community of life-long
   learners, Cal Poly values free inquiry, cultural and intellectual diversity,
   mutual respect, civic engagement and social and environmental
   responsibility.

   The following comments were presented:
   • Points are great but the writing still needs help. Can we refer this to the English Department?
   • Third statement: emphasize technology by listing it before arts and sciences.
   • Last sentence: drop the modifying statement “as a community of life-long learners.” It does not
     reflect our students.
-4-

- “Cal Poly values free inquiry” should stand alone.
- What is the intent of “provides a balance education”? (Durgin replied that the intent is to indicate that we offer students a broad liberal education regardless of the focus.)
- Not sure that “learners” is the correct word. Maybe there is another way of saying “closely together.”
- Third sentence: add “humanities” to encompass all areas or use the phrase “arts and science.”
- Add business to “balanced education” along with arts, sciences, and technology.
- Editorial change in first sentence: “…environment through close faculty and student collaboration.”

B. Cal Poly Learning Objectives:

**CAL POLY LEARNING OBJECTIVES**

All students who complete an undergraduate or graduate program at Cal Poly should be able to:

- Think critically and creatively
- Learn independently
- Engage in lifelong learning
- Communicate effectively
- Work effectively in groups
- Demonstrate expertise in a scholarly discipline and understand that discipline in relation to the larger world of the arts, sciences, and technology
- Use their knowledge and skills to make a positive contribution to society
- Make reasoned decisions based on an awareness of ethical considerations, a respect for cultural diversity, and a commitment to principles of sustainability

The following comments were presented:

- For assessment purposes, make the list of objectives as short as possible.
- Point 6: “…understand that specific discipline…”
- Points 2, 3, and 7 have similar difficulties because they are beyond the control of the University.
- Points 2 and 3 are very similar. Should be able to merge these two points.
- Point 6 should be the first point.
- Last point: add “relevant” ethical considerations.
- Points 7 and 8: remove these because they cannot be measured or agreed upon.
- Lead sentence: Is “should” the correct word?

VII. Meeting adjourned at 5:00pm.

Submitted by,

Gladys Gregory,
Academic Senate
I. Minutes: Minutes for the October 31 and November 28 Academic Senate meetings will be distributed at the December 5 meeting.

II. Communications and Announcements: The next Social Hour—co-hosted by the President’s Office and the Orfalea College of Business—will be on Thursday, December 7, from 4-6 p.m. in the Veranda Café Conference Room. Two free beverage tickets will be given to attendees who bring a new toy for the Toys-for-Tots campaign.

III. Regular Reports:

A. Academic Senate Chair (Giberti):
   Last year the Academic Senate approved Resolution on Textbook Pricing (AS-646-06). The Resolution established a task force to look at the feasibility of creating a central, publicly accessible website that would provide information about textbook requirements, alternative e-formats, and textbook prices for Cal Poly courses. The task force will consist of Frank Vuotto, Academic Senate Vice Chair, Tim Kearns, CIO for Information Technology, Manzar Foroohar, Chair of the Faculty Affairs Committee, Kimi Ikeda, Assistant Vice Provost for System Research Management, Frank Cawley, Director for El Corral Bookstore, Frank Mumford, Executive Director for Cal Poly Corporation, and Todd Maki, AS1 President. The task force will report its findings to the Senate during winter quarter.

   The statewide Academic Senate is looking for faculty members who are interested in participating in a CSU consultation group to review proposals for new EdD programs in the CSU. If interested, please contact Margaret Camuso at the Academic Senate Office, extension 61258.

B. President’s Office: see special reports.

C. Provost Office (Durgin):
   A faculty forum is planned for the last week of February 2007 to discuss the Access to Excellence strategic planning initiative.

   A report from the Admissions Office indicates the number of applications received for early admissions is up substantially, particularly in Engineering and Agriculture.

D. Statewide Senate (Hood):
   The Senate passed a resolution that aligns the UC and CSU science requirement for incoming freshmen. The proposal drops the life science requirement making every UC-eligible student a CSU-eligible student.
Statewide senators asked the Access to Excellence steering committee to consider areas of the original *Cornerstones* initiative that have not yet been fulfilled.

E. CFA Campus President (Saenz):
Mediation continues with fact-finding being the next probable step if no agreement is reached.
There was good turnout at the November 15 rally in Long Beach.

F. ASI Representatives: none.

IV. Special reports (President Baker):
Bill Durgin, Provost/VP for Academic Affairs, and Larry Kelley, VP for Administration and Finance, have compiled a summary report on the budget and other issues important to the campus.
The problem of healthcare continues to be a concern with a $28 million increase in health care premiums for the 2007-2008 fiscal year.
Going beyond a 2% increase in enrollment growth this coming year is not advisable since we are close to physical capacity. There has been an enrollment increase of about 5% during summer quarter, but we need to determine maximum growth during summer quarter before increasing fall enrollment. Having a summer quarter is important because it helps students graduate sooner. The target enrollment for summer is 25% of our calendar year FTE.
This is an opportune time for Cal Poly to review its strategic planning. We will begin by having campus discussions revising the former *Cornerstones* initiative. Some of the revisions can be issues from *Cornerstones* that were not implemented because of cost. The hope is that Access to Excellence will recognize that there are costs associated with providing access to an excellent education. The first round of discussions will occur at the college level. The issue of excellence needs to be defined during these conversations, using the proposed Mission Statement and Learning Objectives as benchmarks. Recommendations will be received from the colleges after their discussions. As we go forward, we need to think of what resources will be needed to aid students in the learning process. The hope is to identify priorities and to set a path for acquiring the resources needed to put them in place. Embedding something of substance from the review of our Master Plan into a larger system-wide initiative has the advantage of obtaining resources more effectively. We need to approach Access to Excellence in a different way than *Cornerstones* and with the intention of obtaining resources to do those things left undone in the earlier initiative.

V. Consent Agenda:

Curriculum Proposals: there being no objection, all items on the Consent Agenda were approved.

VI. Business Item(s):

A. Resolution on Revision of Cal Poly Mission Statement: Academic Senate Executive Committee, first reading. The process of developing a new Mission Statement started almost two years ago. Extensive consultation has occurred in drafting this document.
M/S/P to move the resolution to a second reading.
M/S/P to delete the third WHEREAS clause.
M/S/F to postpone discussion until the next Academic Senate meeting.
M/S/F to approve the following amendment as the first Resolved clause:

RESOLVED: That the Academic Senate recommend for approval the attached Cal Poly Mission Statement with the suggestion to the authoring committee that “students and faculty” be replaced with “students, faculty and staff.”

M/S/P to approve the resolution.

B. Resolution on Cal Poly Learning Objectives: Academic Senate Executive Committee, first reading. The following suggestions were made: make the third learning objective the first and reword the sixth learning objective. This resolution will return as a first reading item at the next Academic Senate meeting. Any other comments or suggestions should be sent to the Academic Senate Office.

C. Master of Science in Economics (Hannings, chair of Curriculum Committee): due to lack of time, this resolution was not discussed. It will return as a Business Item at the continuation meeting of December 5, 2006.

D. Recommendation of Academic Senate Curriculum Committee to approve Physics 141 (Hannings, chair of Curriculum Committee): due to lack of time, this resolution was not discussed. It will return as a Business Item at the continuation meeting of December 5, 2006.

VII. Discussion Item(s): none.

VIII. Meeting adjourned at 5:00 pm.

Submitted by,

Gladys Gregory,
Academic Senate
Master of Science in Economics

Summary of Proposed Degree Program

The goal of the proposed MS in Economics degree program is to train students for careers as professional economists. In the most recent comprehensive study of employment outcomes available, the National Science Foundation’s “Survey of Recent College Graduates” (NSF 1993), 98% of workers employed under the job title of “economist” stated that they held some form of graduate degree. A master’s degree in economics today is the standard entry point into the profession. The proposed MS in Economics degree program is designed to provide students with the high level of technical preparation that is necessary to engage in a professional career in economics. Meeting this goal both supports the mission of Cal Poly to directly involve students with the actual challenges facing their disciplines and affirms the technical character of the university.

The learning objectives for the proposed MS in Economics degree program are: (i) to provide a solid foundation in quantitative methods, (ii) to ground students in the mathematical underpinnings of microeconomic theory and macroeconomic theory, and (iii) to facilitate the integration of economic modeling skills and data analysis techniques in applied research that communicates ideas clearly into hypotheses and apply market data to test them.

The proposed MS in Economics degree program is a 45-unit program designed to be completed in 4 quarters. The program is comprised of: (i) a 20-unit core curriculum of quantitative coursework that emphasizes the methodological approach used by economists to analyze market data (Quantitative Methods, Microeconomics, Macroeconomics, and Econometrics I and Econometrics II); (ii) 17-units of advisor approved electives that allow students to customize the program to suit their career interests; and (iii) an 8-unit culminating experience consisting of either a thesis or coursework combined with a written comprehensive exam. The core curriculum is designed to be completed within the first 3 quarters of study (2 courses in Fall Quarter, 2 courses in Winter Quarter, and 1 course in Spring Quarter), and combined with elective courses in the first three quarters in a manner that allows students to apply economic techniques to examine data in areas aligned with their career interests.
The curriculum for the program is shown below, followed by a brief description of the required courses and elective courses.

### Degree Requirements

#### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 510</td>
<td>Quantitative Methods</td>
<td>4</td>
</tr>
<tr>
<td>ECON 511</td>
<td>Microeconomic Analysis</td>
<td>4</td>
</tr>
<tr>
<td>ECON 512</td>
<td>Macroeconomic Analysis</td>
<td>4</td>
</tr>
<tr>
<td>ECON 520</td>
<td>Advanced Econometrics I</td>
<td>4</td>
</tr>
<tr>
<td>ECON 522</td>
<td>Advanced Econometrics II</td>
<td>4</td>
</tr>
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#### Advisor Approved Electives

Select additional units at the 400 or 500 level as approved by the graduate advisor. 17 units

#### Advisor Approved Electives or Thesis

8 units

Total Hours: 45 units

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**ECON 510 Quantitative Methods (4)**

A review and discussion of the mathematical tools needed for graduate work in economics, including set theory, linear algebra, properties of functions, static and dynamic optimization. 4 lectures. Prerequisite: ECON 408 or MATH 244 or equivalent, and graduate standing, or consent of instructor.

**ECON 511 Microeconomic Analysis (4)**

Basic microeconomic theory including theory of the firm, consumer theory, general equilibrium, capital theory, and welfare economics. 4 lectures. Prerequisite: Concurrent with ECON 510 and graduate standing.

**ECON 512 Macroeconomic Analysis (4)**

Basic macroeconomic theory including markets for commodities and credit, the demand for money, market-clearing and the labor market, inflation and interest rates, investment, real business cycles and unemployment, economic growth, government consumption and the role of public services, and taxes, transfers, and the public debt. 4 lectures. Prerequisite: ECON 511 and graduate standing.

**ECON 520 Advanced Econometrics I (4)**

The use of statistical procedures to measure theoretical economic relationships and to verify and reject theories. Advanced coverage of regression analysis and hypothesis testing. 4 lectures. Prerequisite: ECON 339 or equivalent, ECON 511 and graduate standing.

**ECON 522 Advanced Econometrics II (4)**

The use of statistical procedures to deal with simultaneous equations, limited dependent variables and time-series data. Includes methods of instrumental variables, generalized method of moments and maximum likelihood. 4 lectures. Prerequisite: ECON 520 and graduate standing.
Proposed Economics elective courses at the 500-level

- ECON 500 Individual Study (1-4)
- ECON 532 Environmental and Natural Resource Economics (4)
- ECON 534 International Economics (4)
- ECON 536 Public Economics (4)
- ECON 538 Industrial Economics (4)
- ECON 580 Seminar (1-4)
- ECON 599 Thesis (4)

Economists are employed in a wide variety of occupations. In addition to colleges and universities, major employers of economists include: (i) Banks and other financial institutions; (ii) major industrial enterprises; (iii) State & local government agencies; (iv) Federal government agencies; (v) International organizations such as the United Nations and the World Bank; (vi) Economic consulting firms; and (vii) Non-profit organizations. The proposed MS in Economics degree program will provide students with the appropriate skills to enter the economics profession.

Student demand for the program is driven by strong financial incentives to engage in careers as economists. Quantitatively-proficient students who acquire jobs as economists enjoy a substantial salary premium in the market. The Bureau of Labor Statistics reports a median income level for economists of ($70,254), which is 50% higher than the median income level among typical occupations selected by students with BS degrees in economics ($47,032). The projected trend in job growth for economists in the State of California is strong. Over the 2000-2010 period, the forecasted growth in jobs for economists in California is 42.9% and positions for economists are projected to grow much faster than average compared with all occupations in California (California Occupation Guide #253 (2003)). The need for economists in business, industry, and local government occupations is currently not being met by any other program in the County of San Luis Obispo, and the MS in Economics degree program will allow students to tap into high-income jobs that Cal Poly currently is not serving.
Adopted:

ACADEMIC SENATE
of
CALIFORNIA POLYTECHNIC STATE UNIVERSITY
San Luis Obispo, CA

AS-___-06

RESOLUTION ON
CAL POLY LEARNING OBJECTIVES

WHEREAS, Cal Poly has never formally adopted a set of learning objectives at the institutional level; and

WHEREAS, A set of “Characteristics of a Cal Poly Graduate” were included in the 1995 report of the Curriculum and Calendar Task Force entitled *Commitment to Visionary Pragmatism* but were not voted upon by the Academic Senate; and

WHEREAS, The adoption of institutional learning objectives is a requirement for WASC accreditation; and

WHEREAS, A set of institutional learning objectives has been developed after consultation between administration, faculty, and staff, including an Academic Senate retreat; therefore be it

RESOLVED: That the Academic Senate recommend for approval the attached set of institutional learning objectives for Cal Poly.

Proposed by: Academic Senate Executive Committee
Date: October 16, 2006
Revised: November 2, 2006
Revised: November 7, 2006
Revised: November 17, 2006
CAL POLY
LEARNING OBJECTIVES

All students who complete an undergraduate or graduate program at Cal Poly should be able to:

- Think critically and creatively
- Communicate effectively
- Learn independently
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- Work effectively productively as individuals and in groups
- Use their knowledge and skills to make a positive contribution to society
- Make reasoned decisions based on an understanding of ethical considerations, ethics, a respect for cultural diversity, and an AWARENESS OF ISSUES RELATING TO principles of sustainability
- Engage in lifelong learning

Change in listing order

was 1 now 1
was 4 now 2
eliminated
was 6 now 3
was 5 now 4
was 7 now 5
was 8 now 6
was 3 now 7