



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

MEETING OF THE ACADEMIC SENATE
Tuesday, May 8, 2007
UU220, 3:10 to 5:00pm

- 3:10 I. Minutes:
Approval of minutes for the April 17, 2007 Academic Senate meeting (pp. 2-3).
- 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:
- 3:25 Special reports [*Please limit to 10 minutes or less*]:
Bill Plummer, chair of Research & Professional Development Committee:
"Support of Faculty Scholarship: Current Practices and Recommendations" (pp. 4-42).
- IV. Consent Agenda:
- 3:45 V. Business Item(s):
A. Resolution on Consolidation of Academic Senate Fairness and Student Grievance Boards, Executive Committee, second reading (pp. 43-44).
B. Resolution on Elimination of Academic Senate Faculty Dispute Review Committee: Executive Committee, second reading (p. 45).
C. Curriculum Proposal: New Degree Program for BA, Liberal Arts & Engineering Studies: Hannings, chair of Curriculum Committee, first reading (pp. 46-55). [*President Baker will be in attendance for this discussion.*]
D. Resolution to Approve Proposal for the Establishment of the Cal Poly Center for Global Automated Identification Technologies (poly GAIT): FreedJOpava, representatives for Poly GAIT, first reading (pp. 56-60).
E. Resolution on Consolidation of Academic Senate United States Cultural Pluralism Subcommittee and Curriculum Committee: Executive Committee, first reading (pp. 61-62).
- VI. Discussion Item(s):
- 5:00 VII. Adjournment:

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MINUTES OF
The Academic Senate
Tuesday, April 17, 2007
UU 220, 3:10 to 5:00 p.m.

- I. Minutes: The minutes of March 6 and March 13 were approved as presented.
- II. Communications and Announcements: President Baker has acknowledged receipt of resolutions AS-652-07 and AS-653-07.
- III. Reports:
 - Regular reports
 - A. Academic Senate Chair: Giberti mentioned an email sent to all senators reminding each caucus to meet and fill vacancies that still exist for next year in consultation with the appropriate dean. He will attend an Access to Excellence Steering Committee meeting on April 24-25.
 - B. President's Office: Howard-Greene reported on President Baker's email in response to the tragedy that occurred on the Virginia Tech campus. See <http://www.calpolynews.calpoly.edu/news/Releases/2007/April/Baker-message.html>.
 - C. Provost's Office: none.
 - D. Statewide Senate: none.
 - E. CFA Campus President: Saenz reported that a ratification vote of the tentative agreement will take place on May 1-3 with an informational meeting scheduled for April 26.
 - F. ASI Representative: none.
 - Special reports

Jim Maraviglia, Assistant Vice President for Admissions, Recruitment & Financial Aid reported on outreach efforts and admissions trends. See *Update on Undergraduate Admissions and Recruitment* (<http://www.calpoly.edu/acad-seni/Documents/undergrad%20admission&Recruit.pdf>), *Developing the STEM Education Pipeline* (<http://www.calpoly.edu/acad-seni/Documents/STEM%20education.pdf>), and *Reading Between the Lines: What the ACT Reveals About College Readiness in Reading* (<http://www.calpoly.edu/acad-seni/Documents/ReadingBetweenTheLines.pdf>).
- V. Consent Agenda: none.

VI. Business Item(s):

- A. Election of Academic Senate Chair and Vice Chair for 2007-08: Bruno Giberti and Frank Vuotto were elected by acclamation as 2007-2008 Academic Senate Chair and Vice Chair respectively.

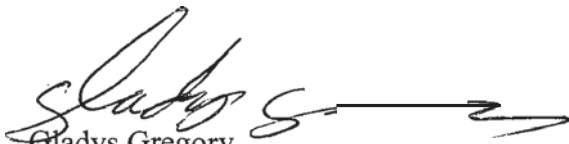
- B. Resolution on Consolidation of Academic Senate Fairness and Student Grievance Boards (Executive Committee, first reading): This resolution abolishes Student Grievance Board and transfers its responsibilities to Fairness Board, which shall develop new procedures consistent with the change. Resolution will return as a second reading item at the May 8 Academic Senate meeting.

- C. Resolution on Elimination of Academic Senate Faculty Dispute Review Committee (Executive Committee, first reading): This resolution abolishes the Faculty Dispute Review Committee. Resolution will return as a second reading item at the May 8 Academic Senate meeting.

VII. Discussion Item(s): none.

VIII. The meeting was adjourned at 4:45 p.m.

Submitted by,


Gladys Gregory,
Academic Senate

Research and Professional Development committee report to the Academic Senate-- 8 May 2007

Introduction to this report

To: Academic Deans

4 January 2007

From: Bill Plummer

Chair, Research and Professional Development committee

"No one should be surprised at the result of an RPT decision, not the applicant, nor the department, nor the College nor the Administration." This comment by the Provost leads into the charge that has been given to the Research and Professional Development (RPD) committee -of: "How do Cal Poly colleges and departments support scholarship? Conduct best-practices study of campus and report to Academic Senate by spring 2007". The RPD committee decided that this could best be done during a question and answer session, with questions to be sent ahead of time.

In an effort to create an atmosphere of collegiality and understand how research/scholarly development is viewed relative to the RPT process, we would like to have each of you, or your representative, attend a committee meeting prepared to answer the questions listed below.

Gladys Gregory will be requesting schedules to set up meeting times and we Thank You in advance for your participation. We anticipate finishing all meetings by the end of Winter Quarter.

Questions for representatives of college RPT committees:

1. How does research/scholarship factor into RPT decisions in your college?
 - a. Are there explicit, clearly defined requirements for research/scholarly productivity (such as a percentage for each area)?
 - b. Is there consistency in requirements across your college?
 - c. Are new faculty required to have professional development plans? If so, can you describe the details of those plans, as well as the process for developing and approving them, and for assessing progress?
 - d. Are senior faculty "mentors" assigned to advise tenure-track faculty as they move through the RPT process? Has this been successful in encouraging research and scholarly productivity?
2. What are the major limitations to research and scholarly productivity in your college?

3. What strategies have been successful in promoting research and scholarly productivity?
 - a. Are these strategies applied uniformly or primarily to assist new faculty?
 - b. Is assigned time used and how?
 - c. Are class-size adjustments made to reduce faculty teaching loads?
 - d. How are faculty encouraged to apply for external funding through grants and contracts?
 - e. Are other strategies used?

4. What are the top 5-10 activities that are accepted by your college as "research or scholarship"?

Results

Appendices A and B contain a synopsis of each College's response to the above questions and the full response, respectively. Missing is the College of Architecture & Environmental Design as there has been no response of any kind to date (26 April 2007).

****Final version of the attached drafts to go here****

Teacher-Scholar Model at Cal Poly

Cal Poly is in a transition period from a teacher model to a teacher-scholar model. While teaching has been and will continue to be the most important aspect at Cal Poly, the professional development is very important as well. Thus, we propose three teacher-scholar models at Cal Poly:

Model A

(2/3 teaching and 1/3 research): Teaching (60%), Research (30%), Service (10%)

Model B

(1/2 teaching and 1/2 research): Teaching (45%), Research (45%), Service (10%)

Model C

(4/5 teaching and 1/5 research): Teaching (70%), Research (20%), Service (10%)

Other models can be considered based on individual faculty's strength and the overall needs of the department in each of the three performance categories.

We all recognize that heavy teaching load is the major obstacle to implement the teacher-scholar model at Cal Poly. We suggest that individual colleges/department to adjust the teaching load based on one of the above models or variation of them. For example, 8-9 units teaching load per quarter for Model A, 12 units teaching load per quarter for Model C.

We also recommend the following measures for adjusting teaching load based on the above models:

- 1) assign faculty same course and multi-sessions to reduce course preparation time; and
- 2) increase graduate student enrollments to assist faculty conducting research.

DRAFT RECOMMENDATIONS

Limit service burden

It was found that the service burden should be reduced, as should its value in the RPT process. This is not to say that service shouldn't be considered, but in moving to a teaching-research model Cal Poly this is an important consideration. It is particularly important to protect tenure-track faculty from over-emphasizing the service area, and their service activities should be limited to the department, community, and professional levels, unless in exceptional cases (such as when specific expertise is required). University level service should be limited to tenured faculty. Non-tenure faculty should have their Cal Poly career emphasize teaching and professional development.

Recommendation 1: To reduce service burden of new-faculty by limiting their service activities to the department level.

Recommendation 2: To limit University service to tenure faculty except in exceptional cases.

Synchronize clear RPT criteria between different levels

It was found that there is a lot of ground for developing, improving, and integrating the RPT criteria in the individual departments and also within the colleges. The departments should develop RPT criteria that are clear and disciplinary specific, providing faculty -and particularly new faculty- with a clear picture of how to direct their academic career and how to expect to be judged in peer reviews and in college reviews. In some colleges these specific criteria are pretty much left to each department, while in others the reverse happens. Still, there should be synchronization between college and department levels criteria, and the college criteria should be more general while the department should be more specific and even suggest some quantifiable goals towards tenure, such as number of publications, etc.

Recommendation 1: To have all departments and colleges review and synchronize their RPT criteria.

Recommendation 2: To have all Departments develop specific requirements for professional development and, whenever possible, to us quantifiable criteria.

Recommendation 3: To have requirements and criteria for professional development tied to the Department/College Strategic Plan.

Implement department level mentoring

It was found that one of the greatest challenges of tenure-track faculty is to plan for their academic career within the frameworks set by the departments, the colleges, and Cal Poly. While clear and integrated RPT criteria is the first step towards helping new faculty, there is a strong need for a more personal guidance such as a mentorship program could provide. This type of program exists in some departments with positive results. On the other hand, the shift from a teaching toward a teaching-research model may result in conflicts in mentorship since not all tenured faculty are used to the new model. The departments should consider having the PRCs providing this mentorship on a regular basis as they are the ones who will be assessing the new faculty.

Recommendation 1: To have all departments implement a mentorship program that would support new faculty in planning and implementing a successful academic career.

Professional Development Plan and Faculty Activity Report

It was found that there is not consistency across campus regarding the PDP and the FAR. Some departments/colleges do not require them, some require but it is not clear how they are used and whether they are assessed by PR and RTP committees. The PDP and FAR are important tools to help faculty, and particularly new faculty, to plan for and to execute their academic careers in consonance with RPT requirements. Academic progress should be clear from these documents, and their important relationship to mentorship and to the department's Strategic Plan is clear. Moreover, it is important for both faculty and public to have the faculty resume and yearly activity reports publicized through Cal Poly's web site.

Recommendation 1: To have all departments implement the Professional Development Plan and Faculty Activity Report.

Recommendation 2: To make the PDP and FAR part of the Working and Personnel Action Files.

Recommendation 3: To have faculty resumes and year reports divulged in Cal Poly's website.

General Support for Research

It was found that while research has always been a component of the Cal Poly mission, and while the university is moving toward a more research oriented model, there are still many burdens in that path. Evidently lack of resources to support research is the most obvious one, and the Committee found that different colleges and different departments act on this in different ways and pursue different models. The university should find ways to be more pro-active in the support of research in different ways such as supporting faculty to present papers in professional conferences, releasing time to develop research proposals/projects, encourage interdisciplinary activities and projects, provide more support for graduate programs, and even making space available to research projects. Support for research can easily be tied to community-outreach and learn-by-doing. Cal Poly would also benefit in providing support for publications, either by having a university press, or by providing publishers with different types of subvention to publish faculty work.

Recommendation 1: To implement university-wide strong programs to support research, publication, and faculty presence in the community and in the industry.

DRAFT

Research and Professional Development Committee
Report on College Department Support of Faculty Scholarship: Current Practices and
Recommendations
April 2007

Current Practices (see Expectations/Supports Charts for each College)

Recommendations

1. *Clarify Teacher/Scholar Model at Cal Poly.* A concern expressed across colleges. Some faculty question whether the goal at Cal Poly is to move from a "teaching" to a "research" university; others define scholarship in different ways, including but not limited to the conduct and dissemination of research.
 - Recommendation: Specify approximate percentage of time/value faculty are expected to devote to teaching, scholarship, Cal Poly service, and community & professional service activities. For example, the university might stipulate that untenured faculty devote approximately 60-70% to teaching, 20-30% to scholarship, 5-10% to service, and tenured faculty devote more time to service and less to teaching. Although faculty might choose different emphases at different times in their careers, it is not recommended for faculty members to "specialize" in just one area (e.g., teaching, research, service).
 - Recommendation: Clarify meaning of "scholarship" at Cal Poly. Note how expectations might be similar and different from that in the DC system.
2. *Reduce Service Responsibilities of Faculty.* Faculty workload is seen as an obstacle to professional development across the university.
 - Recommendation: Examine ways to reduce university, college, and department service responsibilities of all faculty. One way would be to increase the proportion of tenure-track and tenured faculty (Access to Excellence, Domain 5). Another would be to eliminate some committees, and required reports (e.g., yearly evaluations), as well as some responsibilities that might be assumed by staff (e.g., student advising).
 - Recommendation: Protect untenured faculty from service responsibilities, particularly at the university level.
3. *Provide more opportunities for reductions in teaching load* Efforts are made across colleges to reduce teaching loads for first year faculty; but there are large disparities in the provision of such opportunities (e.g., from 1 to 3 course

releases). Some colleges are seeking ways to reduce teaching load by offering a few larger class sections; however, few facilities are available on campus for large classes.

- Recommendation: Adapt facilities to allow for more large classes.
- Recommendation: Examine policies that interfere with provision of larger classes (when appropriate) to reduce teaching loads (e.g., min # students, availability of TA's).
- Recommendation: Expand number of Tenure Track faculty as well as qualified lecturers who can teach courses for those released

4. *Expectations for RTP within Departments and Colleges need to be clear and in sync.* [to add per our discussion, perhaps move to #2]

- Recommendation: clarity-what constitutes prof dev (at department level), external validation [see #1]
- Recommendation: consistency in expectations-across Dept., College, University, examine documents
- Recommendation: Untenured faculty submit Professional Development Plan (revised every other year) approved by Chair, Dean, and assigned Mentor (when appropriate)
- Recommendation: Untenured faculty participate in Peer/Chair/Dean Review every 2 years-receive feedback on progress
- Recommendation: All faculty post brief Activity Reports (yearly?) on teaching, prof dev, and service activities; check periodically for alignment with departmental expectations & prof dev plans [follow university template] *Note: might also include approx time spent in each major area, to gather data...*

5. *Provide more resources to support professional development and grant writing activities.*

- Recommendation: \$ for travel to present at conferences, etc.
- Recommendation: \$ to support grant writing

6. *Provide facilities for the conduct of research by faculty and students.*

7. *Consider offering more graduate programs. ???*

Appendix A

College of Agriculture, Food & Environmental Sciences-
Faculty Professional Development

Expectations	Clarity- Expectations	Consistency across Departments	Mentoring- Ten-Track & Tenured Faculty	Support- Ten-Track & Tenured Faculty	Resource Allocation- Ten-Track & Tenured Faculty	Obstacles
<p>Teaching, Professional Dev, and Service are the 3 major areas for RTP evaluation. Teaching is considered most important; Research/scholarship is gaining importance in the College</p>	<p>There is consistency in research/scholarly activity expectations as defined by our <i>Faculty Personnel Policies & Procedures</i></p>	<p>In practice, however, CAFES departments differ in their expectations for faculty scholarship. We are currently addressing this in our college. All CAFES faculty are required to prepare an annual Professional Growth Plan, as per our <i>Faculty Personnel Policies & Procedures (PPP)</i> (p. 7). Plans must include short and long-term goals/objectives for professional growth, and are typically organized with respect to the evaluation categories of <i>teaching, professional growth and achievement, and service</i> of the AP 109.</p>	<p>Senior faculty often participate in informal mentoring of junior tenure-track faculty, usually at the request of the department head. For the last 3 years, CAFES has implemented a formal mentoring program in which faculty volunteer to be matched as mentors/mentees.</p>	<p>Limited release time, some for grant proposal writing (e.g. Provost's incentive grants, department discretionary funds), some for research release from teaching (e.g. SFSG, ARI, other research grants). This is done on a limited, but growing basis. <i>Seedfunding</i>: State Faculty Support Grants, ONR funds (R&GP), Provost's Incentive Grants, CAFES dean's start-up grants for 1st two years grad student support; Grant-writing workshops (provided by dean's office in 2005, 2006); Hiring an in-house grants analyst; RPT workshops offered by associate deans (2005, 2006)</p>	<p>All resources are allocated via departments</p>	<p>Primary limitations: Graduate student funding (including teaching/research assistantships); Faculty release time; Office space for graduate students; Lab space and equipment - 12 High teaching load (12 units per quarter) & numerous course preps High service responsibilities for tenured faculty <i>Unclear Teacher/Scholar Model at Cal Poly</i></p>
<p>Expectations considered/inprogress</p>	<p>Clarity of Expectations considered/inprogress</p>	<p>Consistency-- Departments Improvements considered/inprogress</p>	<p>Mentoring Improvements considered/inprogress</p>	<p>Support Improvements considered/inprogress</p>	<p>Resource Improvements considered/inprogress</p>	<p>Obstacles-- Improvements considered/inprogress</p>

DRAFT 4/6
College of Business-
Faculty Professional Development

Expectations	Clarity- Expectations	Consistency across Departments	Mentoring- Ten-Track & Tenured Faculty	Support- Ten-Track & Tenured Faculty	Resource Allocation- Ten-Track & Tenured Faculty	Obstacles
Minimum 4 Peer-reviewed articles in high quality journals, two of which must be within last 3 years; at least one discipline based article and others can be pedagogical and/or contribution to practice articles	High	Yes	Not formally	Internal college grants and internal support for assigned time	Priority is given to new faculty-	The culture of "We are a teaching school" <i>Unclear Teacher/Scholar Model at Cal Poly</i>
Expectations Improvements considered/inprogress	Clarity of Expectations Improvements considered/inprogress	Consistency-- Departments Improvements considered/inprogress	Mentoring Improvements considered/inprogress	Support Improvements considered/inprogress	Resource Improvements considered/inprogress	Obstacles-- Improvements considered/inprogress

**College of Education -
Faculty Professional Development**

Expectations	Clarity- Expectations	Consistency across Departments	Mentoring- Ten-Track & Tenured Faculty	Support- Ten-Track & Tenured Faculty	Resource Allocation- Ten-Track & Tenured Faculty	Obstacles
<p>COE has two departments- Teacher Education Division (TED) and Department of Graduate Studies in Education (DGSE)---each of which has its own RPT policy; expectation of external validation; each member defines her/his own goals with the department chair, framed by the three areas for evaluation COE currently is drafting one college-wide policy</p>	<p>faculty member's growth is monitored and reviewed by the peer review committee, chair, and dean TED's policy explicitly requires publications by the time of tenure/promotion review, while DGSE's policy does not</p>	<p>There is consistency in the expectation for scholarship and in the types of activities that are valued (work that has been validated by external review, e.g., published scholarship, grant writing, conference presentations, editorial assignments);</p>	<p>senior faculty act as informal mentors to tenure-track faculty without official assignments; each junior faculty member meets regularly with the department chair who also serves in a mentor role.</p>	<p>Course release for new faculty members; Seed funding from the COE and university to support grant writing (e.g., course release, summer stipend); Having the COE Advancement Director work with faculty on grant sources and concept development as part of her responsibilities; Meetings intended to describe (e.g., CTL) and encourage (e.g., CESaME) scholarly activity</p>	<p>course release and seed funding are primarily for new faculty; Assigned time is given to new faculty members in their first year. Additional release time may be granted on a limited basis</p>	<p>a heavy campus teaching assignment, faculty are in the field on a regular basis, for example, supervising field work and student teaching, meeting with teachers and administrators, and providing professional development. With a service area from Lompoc to San Miguel (and sometimes beyond), travel is a time-consuming effort. Other limitations are lack of space and funding to support project development and implementation</p>
<p>Expectations Improvements considered/inprogress</p>	<p>Clarity of Expectations Improvements considered/in progress</p>	<p>Consistency-- Departments Improvements considered/in progress</p>	<p>Mentoring Improvements considered/inprogress</p>	<p>Support Improvements considered/inprogress</p>	<p>Resource Improvements considered/inprogress</p>	<p>Obstacles-- Improvements considered/inprogress</p>

Draft 4/23/07
College of Engineering
Faculty Professional Development

College	Expectations	Consistency across Departments	Mentoring-Tenure-track faculty	Support-Tenure-track and tenured faculty	Resources Allocation	Obstacles
Engineering	There are NO clearly defined requirements for research and professional development. New faculty are expected to have professional development plans, but they vary from department to department.	There is NO consistency across the college.	At present there are no assigned mentors. Some younger female faculty members are concerned that too much emphasis on mentors may result in discrimination against them, since nearly all the senior faculty are male.	The Dean's office provides some assistance with release time, but primarily for new faculty. Some departments give new assistant professors NO teaching for one or two quarters, other require reduced load (like 6 units).	Priority is given to new faculty.	Facilities, space, funding and release time. Faculty are concerned that increasing allocation of funds to research and professional development would reduce funding for teaching-related activities.

DRAFT 4/6

College of Science and Mathematics -
Faculty Professional Development

Expectations	Clarity- Expectations	Consistency across Departments	Mentoring- Ten-Track & Tenured Faculty	Support- Ten-Track & Tenured Faculty	Resource Allocation- Ten-Track & Tenured Faculty	Obstacles
<p>Teaching, Professional Dev, and Service are the 3 major areas for RTP evaluation. Teaching is considered most important; Research/scholarship is gaining importance in the College</p>	<p>Personal criteria for individual faculty members are proposed in professional plans for consideration by the various levels of review. leads to grant applications, student and faculty presentations at professional meetings, and eventually a peer-reviewed publication prior to tenure consideration.</p>	<p>everyone has to have a professional plan that leads to external validation of the work proposed. There is flexibility in that the professional plan and criteria for RPT in professional development are personalized for each person.</p>	<p>most tenure track faculty members have acquired personal mentors but I don't think it is always by assignment relationships usually are helpful in encouraging scholarly activities though we have faculty members who have strong views of what a "teaching university" should be and these often believe that research should be deemphasized.</p>	<p>All new faculty members are given a one-third reduction in teaching load their first year (or second) to assist in establishing a professional program. Faculty members applying for grants are given assigned time as a college contribution to actually implement a funded proposal.</p>	<p>Start up funds for new faculty members: \$15K for lab sciences, \$5K for math and stat. More is available from College Based Fee or depending on needs of the faculty member.</p>	<p>Time, facilities, money We are open to larger classes within reason but the facilities are not available. CSU generally does not build faculty space, senior project and such courses are by arrangement, they do not generate space I think it is unrealistic to think the state is going to support research significantly. <i>Unclear Teacher/Scholar Model at Cal Poly</i></p>
<p>Expectations Improved/inprogress considered/inprogress</p>	<p>Clarity of Expectations Improved/inprogress considered/inprogress</p>	<p>Consistency-- Departments Improved/inprogress considered/inprogress</p>	<p>Mentoring Improvements considered/inprogress</p>	<p>Support Improvements considered/inprogress</p>	<p>Resource Improvements considered/inprogress</p>	<p>Obstacles-- Improvements considered/inprogress</p>

DRAFT 4/6
College of Liberal Arts-- Faculty Professional Development.

Expectations	Clarity-Expectations	Consistency across Departments	Mentoring-Ten-Track & Tenured Faculty	Support-Ten-Track & Tenured Faculty	Resource Allocation-Ten-Track & Tenured Faculty	Obstacles
<p>Teaching, Professional Dev, and Service are the 3 major areas for RTP evaluation. Teaching is considered most important; ProfDev is becoming a close second in the College</p>	<p>Varies across departments. Some departments state minimum # of specific accomplishments; others place emphasis on quality of accomplishments within a range of options. A few depts provide little guidance regarding expectations for research, publication, & scholarly activity</p>	<p>No consistency in expectations stated. Diversity of depts & programs (17) makes consistency difficult to attain. Dean requires Prof Dev Plans of all tenure-track faculty; asks dept. chairs to meet with new faculty to create a 5-year plan</p>	<p>The majority of depts. have informal mentoring systems; only 1 has formal process. Many faculty believe that the thorough, yearly peer eval process (e.g., observations of teaching, exam. of prof & service activities) provides ample information for tenure-track faculty</p>	<p>Limited release time for new fac (4 Wiits 1st year) Release time + funds for tenure-track & tenured faculty to initiate or complete projects: Dean's ProfDev Awards All recommended Sabbatical awards are funded beginning in 2006-2007 [State Faculty Support Grants] [Provost funds to aid faculty efforts to obtain extramural funding]</p>	<p>Limited resources to support prof dev (\$850 per faculty per year for travel in 2006-2007)</p>	<p>High teaching load (12 Wiits per quartr) & numerous course preps High service responsibilities for tenured faculty <i>Unclear Teacher/Scholar Model at Cal Poly</i> Limited time for and knowledge about grants, fellowships, and advancement Need for more qualified lecturers to replace faculty w/ release time/leave Class size policy - must have \geq 120 students to earn 8 Wiits (& reduce teaching time) Space for research conduct, etc.</p>

<p>Expectations Improvements considered/inprogress</p> <p>Special Assistant to the Dean for Faculty Dev appointed to increase opportunities for professional development</p>	<p>Clarity of Expectations Improvements considered/inprogress</p> <p>The College RPT Document will be revised in 2007-08</p>	<p>Consistency-- Departments Improvements considered/inprogress</p>	<p>Mentoring Improvements considered/inprogress</p>	<p>Support Improvements considered/inprogress</p> <p>Special Assistant to the Dean for Faculty Dev led effort to revise the travel program (Prof Travel Awards)</p> <p>Special Assistant to the Dean for Fac Dev is offering multiple workshops on grants and fellowships</p> <p>SA to the Dean for Fac Dev will help create web page on faculty dev opportunities</p>	<p>Resource Improvements considered/inprogress</p>	<p>Lack of graduate students to assist</p> <p>Low Salaries, Limited opportunities for consulting, poor on-campus child care availability, etc.</p> <p>Obstacles-- Improvements considered/inprogress</p>
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Appendix B

College of Food & Environmental Sciences

Questions for representatives of college RPT committees:

1. How does research/scholarship factor into RPT decisions in your college?

Research/scholarship contributions are evaluated under the *Professional Growth and Achievement* category of the AP 109 form, along with *teaching* and *service* activities, and *other factors of consideration*. Generally, teaching excellence is given the most weight in RPT evaluation. Increasingly, research/scholarship contributions are gaining importance in RPT decisions.

- a. Are there explicit, clearly defined requirements for research/scholarly productivity (such as a percentage for each area)?

Our CAFES *Faculty Personnel Policies & Procedures* (pp. 12-13) specifies the types of professional growth and development activities appropriate to demonstrate faculty competency and growth. We also provide examples of progressively higher professional growth expectations for faculty as they move up the RPT ladder (pp. 43-44). We do not quantify expectations for research/scholarly productivity per se

- b. Is there consistency in requirements across your college?

There is consistency in research/scholarly activity expectations as defined by our *Faculty Personnel Policies & Procedures*. In practice, however, CAFES departments differ in their expectations for faculty scholarship. We are currently addressing this in our college.

- c. Are new faculty required to have professional development plans? If so, can you describe the details of those plans, as well as the process for developing and approving them, and for assessing progress?

All CAFES faculty are required to prepare an annual Professional Growth Plan, as per our *Faculty Personnel Policies & Procedures (PPP)* (p. 7). Plans must include short and long-term goals/objectives for professional growth, and are typically organized with respect to the evaluation categories of *teaching, professional growth and achievement, and service* of the AP 109.

Faculty develop their plans, then submit them to their department head/chair for review; input from departmental peer review committees is recommended (PPP pp. 8-9). Department heads/chairs are expected to meet with RPT candidates each fall to review progress towards Professional Growth Plan goals and assist revision of new plan (PPP p. 10).

- d. Are senior faculty "mentors" assigned to advise tenure-track faculty as they move through the RPT process? Has this been successful in encouraging research and scholarly productivity?

Senior faculty often participate in informal mentoring of junior tenure-track faculty, usually at the request of the department head. For the last 3 years, CAFES has implemented a formal mentoring program in which faculty volunteer to be matched as mentors/mentees. We believe this has increased the level of research and scholarly activity among junior faculty.

2. What are the major limitations to research and scholarly productivity in your college?

Based on a 2005 survey of CAFES graduate coordinators and department heads/chairs, the primary limitations to grow our graduate programs (strongly related to research activity) are:

1. Graduate student funding (including teaching/research assistantships)
2. Faculty release time
3. Office space for graduate students
4. Lab space and equipment

3. What strategies have been successful in promoting research and scholarly productivity?

1. Emphasis from University, College and Department leaders on the importance of research and scholarship in the faculty role.

2. *Seedfunding*: State Faculty Support Grants, ONR funds (R&GP), Provost's Incentive Grants, CAFES dean's start-up grants for 1st two years grad student support

3. Grant-writing workshops (provided by dean's office in 2005, 2006).

4. Hiring an in-house grants analyst

5. RPT workshops offered by associate deans (2005, 2006)

- a. Are these strategies applied uniformly or primarily to assist new faculty?

Strategies 1,3 and 4 benefit faculty at any career stage; no. 2 is primarily for new faculty.

- b. Is assigned time used and how?

Yes; some for grant proposal writing (e.g. Provost's incentive grants, department discretionary funds), some for research release from teaching (e.g. SFSG, ARI, other research grants). This is done on a limited, but growing basis.

c. Are class-size adjustments made to reduce faculty teaching loads?

Not usually. Relatively few high-enrollment classes in CAFES.

d. How are faculty encouraged to apply for external funding through grants and contracts?

1. Meetings with associate dean in charge of research, grants analyst.
2. Grant-writing workshops.

e. Are other strategies used?

The CAFES Research & Graduate Studies committee shares ideas on research and scholarship, including grantsmanship. Faculty are encouraged to collaborate on research projects, particularly through established CAFES centers and institutes (e.g. DPTC, ITRC, CRI, CISSC, and SARC)

4. What are the top 5-10 activities that are accepted by your college as "research or scholarship"?

From PPP (pp. 11-12)

1. Publication in peer-reviewed, professional, trade and educational journals
2. Externally-supported research
3. Participation in professional leaves of absence
4. Participation in professional meetings as a presenter, moderator, session chair, or invited panelist
5. Leadership in professional organizations
6. Review of professional manuscripts
7. Grant proposal review for state, regional, national or international research programs
8. Receiving patents
9. Consulting which provides significant intellectual growth in the faculty member's discipline
10. Continuing education

Submitted by:

Chris Carr

OCOB Associate Dean

February 7, 2007

Questions for representatives of college RPT committees:

1. How does research/scholarship factor into RPT decisions in your college?

[IT'S AN IMPORTANT FACTOR.]

a. Are there explicit, clearly defined requirements for research/scholarly productivity (such as a percentage for each area)?
[YES. FOR TENURE, OUR RPT DOCUMENT REQUIRES A MINIMUM OF FOUR (4) PEER-REVIEWED ARTICLES. TWO (2) OF THOSE MUST ALSO BE WITHIN THE THREE YEARS PRECEEDING THE TENURE APPLICATION. ALSO, AT LEAST ONE (1) OF THESE ARTICLES MUST BE DISCIPLINE BASED. PROMOTION TO FULL PROFESSOR REQUIRES THREE (3) ADDITIONAL PEER REVIEWED PUBLICATIONS (IN ADDITION TO THE PUBLICATION REQUIRMENT FOR TENURE) .]

b. Is there consistency in requirements across your college?

[YES.]

c. Are new faculty required to have professional development plans? If so, can you describe the details of those plans, as well as the process for developing and approving them, and for assessing progress?

[YES. THEY SUBMIT A PDP AS PART OF THEIR ANNUAL REVIEW. THESE PLANS ARE REVIEWED BY THE ACS/DEPARTMENTS CHAIRS AND THE DEAN. TENURED PROFESSORS ARE ALSO REQUIRED TO SUBMIT PDP's PER OUR ANNUAL FAR PROCESS AND VIA OUR DIGITAL MEASURES DATABASE (WHERE ALL FACULTY MUST INPUT THEIR DATA AND UPDATE EACH YEAR) .]

d. Are senior faculty "mentors" assigned to advise tenure-track faculty as they move through the RPT process? Has this been successful in encouraging research and scholarly productivity?

[NOTHING FORMAL. WE LET THIS GROW INFORMALLY AND ORGANICALLY. WE FIND IT WORKS BEST THIS WAY AND IS MORE MEANINGFUL FOR BOTH MENTOR AND MENTEE.]

2. What are the major limitations to research and scholarly productivity in your college?

[THE CULTURE AT CAL POLY -- SOME POSIT THAT RESEARCH IS NOT IMPORTANT, CAN'T BE DONE WELL and/or "WE ARE A TEACHING SCHOOL". TO HEAR THIS OVER AND OVER CAN MENTALLY DRAIN THOSE AT CAL POLY WHO FEEL THAT RESEARCH IS VALUABLE.]

3. What strategies have been successful in promoting research and scholarly productivity?

[INTERNAL COLLEGE GRANTS TO SUPPORT PEER REVIEWED PUBLICATIONS; INTERNAL COLLEGE GRANTS TO SUPPORT EXTERNAL GRANT APPLICATIONS AND SUCCESS; ALSO, INTERNAL FAR SUPPORT PROVIDED BY THE COLLEGE.]

a. Are these strategies applied uniformly or primarily to assist new faculty?

[UNIFORMLY APPLIED; BUT NEW FACULTY ARE GIVEN PRIORITY IF/WHEN THE NUMBER OF PEOPLE REQUESTING SUCH GRANT SUPPORT EXCEEDS THE FUNDS AVAILABLE.]

b. Is assigned time used and how?

[TO PROMOTE RESEARCH, IT IS MY UNDERSTANDING THAT OUR CLASS SIZES AND SCU GENERATION ARE SOME OF THE LARGEST ON CAMPUS, IF NOT THE LARGEST. THIS LARGER CLASS SIZE IN TURN ALLOWS THE COLLEGE TO ENCOURAGE RESEARCH WHILE PROVIDING REDUCING TEACHING LOADS FOR FACULTY PERFORMING AT A HIGH LEVEL.]

c. Are class-size adjustments made to reduce faculty teaching loads?

[NO.]

d. How are faculty encouraged to apply for external funding through grants and contracts?

[YES. SEE ABOVE.]

e. Are other strategies used?

[YES.]

4. What are the top 5-10 activities that are accepted by your college as "research or scholarship"?

[S-10? THIS QUESTION IS DIFFICULT TO ANSWER WITHOUT A SPECIFIC EXAMPLE AND CONTEXT.]

Research and Professional Development Committee

College of Education: *Response to RPT Questions*
(February 20, 2007)

The CaE has two departments-Teacher Education Division (TED) and Department of Graduate Studies in Education (DGSE)-each of which has its own RPT policy. Due to the similarities between these documents, the CaE currently is drafting one college-wide policy.

1. How does research/scholarship factor into RPT decisions in your college?

There are three main areas for evaluation:

- Instruction and Instructionally Related Activities (e.g., pedagogical approach, student response, ongoing professional development as a teacher, ongoing professional development in the discipline)
- Scholarly and Creative Activities (work that has been validated by external review, e.g., published scholarship, grant writing, conference presentations, editorial assignments, reviewer appointments, applied research, scholarly activity with students)
- Service (i.e., to the University, community, and profession)

a. Are there explicit, clearly defined requirements for research/scholarly productivity (such as a percentage for each area)?

The CaE does not have one set of specific requirements for all faculty, except for the expectation of external validation. Rather, each member defines her/his own goals with the department chair, framed by the three areas for evaluation. The faculty member's growth is monitored and reviewed by the peer review committee, chair, and dean. -

b. Is there consistency in requirements across your college?

There is consistency in the expectation for scholarship and in the types of activities that are valued (work that has been validated by external review, e.g., published scholarship, grant writing, conference presentations, editorial assignments). TED's policy explicitly requires publications by the time of tenure/promotion review, while DGSE's policy does not. However, this and other expectations will be addressed in the development of a college-wide document.

c. Are new faculty required to have professional development plans? If so, can you describe the details of those plans, as well as the process for developing and approving them, and for assessing progress?

New faculty are required to have professional plans, which call for goals for professional growth organized around the three evaluation categories. These plans are developed by the faculty member and approved by the department chair. The member's progress toward goals is monitored and reviewed by the peer review committee, chair, and dean each year.

d. Are senior faculty "mentors" assigned to advise tenure-track faculty as they move through the RPT process? Has this been successful in encouraging research and scholarly productivity?

Because of the size of our departments (Le., 8-9 tenure-line faculty each), senior faculty act as informal mentors to tenure-track faculty without official assignments. In addition, each junior faculty member meets regularly with the department chair who also serves in a mentor role.

2. *What are the major limitations to research and scholarly productivity in your college?*

A major limitation is lack of assigned workload time. In addition to a heavy campus teaching assignment, faculty are in the field on a regular basis, for example, supervising field work and student teaching, meeting with teachers and administrators, and providing professional development. With a service area from Lompoc to San Miguel (and sometimes beyond), travel is a time-consuming effort. Other limitations are lack of space and funding to support project development and implementation.

3. *What strategies have been successful in promoting research and scholarly productivity?*

- Having a stated scholarship expectation for the departments, college, and university
- Course release for new faculty members
- Seed funding from the COE and university to support grant writing (e.g., course release, summer stipend)
- Having the COE Advancement Director work with faculty on grant sources and concept development as part of her responsibilities
- Meetings intended to describe (e.g., CTL) and encourage (e.g., CESaME) scholarly activity.

a. *Are these strategies applied uniformly or primarily to assist new faculty?*

A course release and seed funding are primarily for new faculty.

b. *Is assigned time used and how?*

Assigned time is given to new faculty members in their first year. Additional release time may be granted on a limited basis.

c. *Are class-size adjustments made to reduce faculty teaching loads?*

Due to the graduate, field-based nature of our programs, the COE has no large classes (e.g., maximum about 30 students).

d. *How are faculty encouraged to apply for external funding through grants and contracts?*

- Opportunities for seed funding to write proposals
- Assistance by the Advancement Director on seeking funding and concept development
- Meetings to bring potential interdisciplinary partners together (e.g., CESaME)

e. *Are other strategies used?*

As with the other colleges, the COE is expected to produce grant proposals as part of a new campus initiative. This expectation is forwarded from the dean to the department chairs and faculty, with attempts to provide incentives (e.g., seed funding).

4. *What are the top 5-10 activities that are accepted by your college as "research or scholarship"?*

- Publications: articles in professional journals, books and book chapters, textbooks, other (e.g., technical reports)
- Grant writing
- Conference presentations
- Editorial assignments
- Jury appointments (e.g., selection panels for grants, fellowships)
- Applied research (e.g., software development)
- Scholarly activity with students

These activities are expected to have a central organizing theme(s), represent professional growth over time, and contribute to advancement of the field.

From: George Bekey [bekey@usc.edu]
Sent: Tuesday, February 13, 2007 2:15 PM
To: wplunimer@calpoly.edu
Cc: gbekey@calpoly.edu
Subject: RE: Meeting Announcement

Bill,

here are some answers to the Questionnaire. As I mentioned, Engineering is in the process of revising its guidelines, and we are making serious progress. I hope we can complete the process in the spring, with significantly more emphasis on research and prof dev.

1.
 - a. There are NO clearly defined requirements for RJPD
 - b. There NO consistency across the college
 - c. New faculty are expected to have PD plans, but they vary from department to department
 - d. At present there no assigned mentors. Some younger female faculty members are concerned that too much emphasis on mentors may result in discrimination against them, since nearly all the senior faculty are male.

2. Major limitations: facilities, space, funding and release time. Faculty are concerned that increasing allocation of funds to RJPD would reduce funding for teaching-related activities.

3. Strategies for promoting R/PD:
The most successful strategy is hiring new faculty members committed to research. The Dean's office provides some assistance with release time.
 - a. Primarily to assist new faculty
 - b. There is some release time, but primarily for new faculty. Some departments give new assistant professors NO teaching for 1 or 2 quarters, other require reduced loads (like 6 units)
 - c. Class size adjustments: No, it is not done
 - d. Encouragement: Mostly negative at present, in the sense that there are "hints" that promotion and/or tenure may be delayed if no external funding is obtained. There are no merit increases in salary.
 - e. Yes, verbal encouragement from deans and department chairs

4.
 - a. Publications in reviewed journals
 - b. Presentations at peer-reviewed technical conferences
 - c. External funding
 - d. Publication of books
 - e. Research and publication related to teaching

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Report on Professional Development in the College of Liberal Arts, Cal Poly
Prepared for the Academic Senate Research and Professional Development Committee
Carolyn J. Stefanco
February 22, 2007

The College of Liberal Arts (CLA) has 163 tenure-track and tenured faculty and a total FTEF of 245 in fifteen departments and two programs. It is the largest college in size of faculty, and diverse in terms of its academic units, courses, and expectations regarding faculty professional development. Each department has its own personnel policy statement, with most being revised fairly recently. A brief CLA personnel policy statement also exists.

1. How does research/scholarship factor into RPT decisions in your college?

Professional development is one of three areas, along with teaching and service, that is evaluated by the Peer Review Committee, Department Chair or Head, and Dean in all RPT actions. Excellence in teaching remains our highest criterion for promotion and tenure, and professional development is now a very close second.

a. Are there explicit, clearly defined requirements for research/scholarly productivity (such as a percentage for each area)?

Six of the fifteen departments state minimum numbers of specific accomplishments, such as peer-reviewed journal article publications, that must be achieved during the probationary period. The majority of departments without numeric specificity discuss the range of accomplishments expected in professional development, and state that they place an emphasis on quality, rather than quantity. A few departments provide little guidance to faculty in the personnel policy statements about expectations for research, publication, and professional performance.

b. Is there consistency in requirements across your college?

There is no consistency, and the diversity of departments in the CLA would make consistency difficult to attain. (See response to question 4.)

c. Are new faculty required to have professional development plans? If so, can you describe the details of those plans, as well as the process for developing and approving them, and for assessing progress?

Six departments state in their personnel policy statements that faculty are required to write professional development plans. In these departments, it is stated that the plans are used as a means to assess faculty progress by the Peer Review Committee and the Department Chair. In only a few cases is it explained which person or group is responsible at the department level for assisting the tenure-track faculty member with the creation of a professional development plan.

The Dean requires professional development plans of all tenure-track faculty in the CLA, and asks that new colleagues meet with their department chairs early in the Fall quarter of their first year to put together an initial five year plan. The information contained in the plan informs the

Dean's evaluation of professional activity in RPT statements. When faculty fail to provide a plan, this is noted as a problem by the Dean, and the faculty member is told to provide a plan during the next evaluation cycle.

The Dean's office is considering the adoption of new methods to make the assessment of progress in professional development more consistent and easier to measure over time.

d. Are senior faculty "mentors" assigned to advise tenure-track faculty as they move through the RPT process? Has this been successful in encouraging research and scholarly productivity?

Only one department has a formal mentoring program, with specific guidelines for the assignment of a mentor, and for the mentor's responsibilities. (It should be noted that this is the largest department in the college.) Mentoring occurs in an informal way, therefore, in the great majority of CLA departments. In addition, many faculty believe that the rigorous evaluation process—with many class visits, examination of student evaluations, and assessment of accomplishments in the area of professional activity and service—on a yearly basis provides tenure-track faculty with a wealth of information from their peers, the Department Chair or Head, the Dean, and the Provost about how they are doing as probationary members of the faculty.

2. What are the major limitations to research and scholarly productivity in your college?

*High teaching load (12 units per quarter for tenure-track and tenured faculty)

*Limited release time for new faculty (4 units release time is granted in the first academic year to new tenure-track hires)

*High service expectations for all faculty, and particularly for senior faculty (who find it necessary to shoulder even greater responsibilities as more of their senior colleagues retire)

*Limited college resources to support professional development (\$850 per faculty member for travel in 2006-2007, with the opportunity to apply to some new, additional programs; see response to question 3.)

*Poor history of grant productivity due to lack of time to investigate funding sources and complete applications, very limited training and support offered by the university, and fewer opportunities for most departments in the CLA in comparison to other colleges

*Low salaries, especially starting salaries (\$54,000 for new tenure-track faculty beginning in 2007-2008), and very limited opportunities for consulting or earning additional income make it difficult for faculty to pay their own expenses related to professional development

*The college and the great majority of departments are at the very beginning stages of creating advisory boards and engaging in advancement work in support of faculty professional development, and department chairs, who have agreed to assume most of the responsibility for

creating these boards and participating in the cultivation of prospects, have little training and no additional resources-especially time-to engage in this important new work

*Lack of support for graduate students (in terms of research and teaching assistantships, and tuition waivers), who could help faculty with research projects

*Lack of childcare on campus, while not a problem specific to CLA faculty, disproportionately affects CLA faculty, who are more likely to be women (and studies show that women still take greater responsibility for childcare than men), who are more likely to teach a greater number of classes per quarter than some of their colleagues in other colleges, and who are less likely to have the financial resources, given their lower salaries and limited ability to generate additional income, to pay the high cost of private child care in the county

3. What strategies have been successful in promoting research and scholarly productivity?

A Special Assistant to the Dean for Faculty Development was appointed by the Dean in Fall 2006 to increase opportunities for professional development in the College. She has been provided the time to research policies and practices at other CSUs, to conduct a literature search on faculty development across the nation, and to work on new initiatives in the college, such as those described below. She has also been provided with some training, namely the opportunity to attend a three-day workshop on grants at USC.

In addition to support for presenting papers at conferences, a new program of support for professional development was approved by the faculty, chairs, and Dean at the end of Fall 2006. Beginning in Winter 2007, faculty may now apply for Professional Travel Awards to participate in exhibits, plays, recitals; conferences, and workshops; to conduct research; and to pay for travel associated with service to a particular profession. This award is \$850 for the 2006-2007 academic year. Dean's Professional Development Awards for Junior Faculty and Dean's Professional Development Awards for Senior Faculty also provide the opportunity for faculty to apply for release time and funds for travel or material under three initiatives, that are designed to a) assist junior faculty who have applied for State Faculty Support Grants b) assist senior faculty who need time to finish a project that is nearing completion and has "a recognizable completion date of a deliverable or specific outcome within the academic year" and c) assist junior and senior faculty who have "a travel opportunity to present a paper or otherwise participate at a leading national or international conference of renown in their field, and who have already used or plan to use their CLA Professional Travel Award."

A Grants and Fellowships Workshop, designed specifically for CLA faculty, was held in Winter 2007. It will be repeated in early Spring 2007 to provide information, searching techniques, and support for faculty who are interested in applying for external funding.

Beginning with the 2006-2007 academic year, the Dean has committed to funding all sabbatical proposals recommended/approved by the College Leave Committee, the Dean, and the Provost.

a. Are these strategies applied uniformly or primarily to assist new faculty?

These strategies are, for the most part, applied uniformly. It should be noted, however, that tenure-track faculty are more keenly aware of professional development expectations, and, in addition, have higher aspirations in this regard in comparison to some of their senior colleagues. While all faculty in the CLA are encouraged to become and remain professionally active, specific efforts do target junior and, especially, new tenure-track faculty. Faculty who joined the college in the Fall of 2006, for example, received individual follow-up emails after the general announcement was made about the Grants and Fellowships Workshop. Full funding of recommended/approved sabbaticals, of course, benefits only those newly and already tenured.

b. Is assigned time used and how?

Assigned time is granted to new tenure-track faculty (4 units in their first year) and to all faculty, on a competitive basis, through the Dean's Professional Development Awards for Junior Faculty and the Dean's Professional Development Awards for Senior Faculty (48 WTUs have been awarded in 2006-2007).

Individual departments are also beginning to find ways to provide assigned time to faculty.

c. Are class-size adjustments made to reduce faculty teaching loads?

Some departments allow faculty to offer larger size classes to reduce teaching loads. Typically, a faculty member who teaches a 4 unit lower-division course that enrolls 50 students will earn 8 units if the class enrollment reaches 120 students. Pedagogical issues and the limited number of large-size classrooms on campus prevent greater use of this "formula" to reduce class size.

One department has proposed a plan whereby some senior faculty would teach large classes in order to generate release time for junior faculty.

d. How are faculty encouraged to apply for external funding through grants and contracts?

The CLA has begun efforts in this regard by offering workshops for faculty on this subject. (See responses to questions 3. and 3a.)

e. Are other strategies used?

The Special Assistant to the Dean for Faculty Development is also planning to work with the webmaster in the CLA to create a new site where all information about faculty professional development opportunities will be located.

4. What are the top 5-10 activities that are accepted by your college as "research or scholarship"?

*Publication of monograph, peer-reviewed scholarly article, essay, poem, prose fiction, translation, technical report, textbook, industry publication, and book review

- *Publication in electronic media, and development of CD-Rom, videotape, DVD, and other audiovisual media
- *Play, choreography, screenplay, scholarly film
- *Performance in production, acting, dancing, voice-over, directing, choreography, screenwriting
- *Professional work in support of production set, costume, or lighting design, technical direction, production management, vocal and dialect coaching
- *Offering master class
- *One-person artistic show, juried or group art show, acquisition of art work by private collector or public institution
- *Musical performance and composition
- *Paper presented to professional association
- *Participation in workshop, seminar, and symposium
- *Museum and gallery exhibition
- *Editor of professional journal
- *Reviewing manuscript for press
- *Reviewing grant
- *Writing and securing of grant
- *Organizing conference
- *Holding office in professional organization
- *Course and workshop given to professional organization
- *Consulting, commission, and relevant professional practice
- *Intensive research for creative project
- *Extended library research
- *Work-for-hire, such as design work, software package, product test, and other services related to industry

College of Science and Mathematics Responses to Academic Senate Questions
on Professional Development
Phil Bailey, Dean, College of Science and Mathematics

1. How does research/scholarship factor into RPT decisions in your college?

It is important. We consider, for example, undergraduate research as a special teaching and learning opportunity for our students and simultaneously a way for our faculty to have scholarly engagement.

a. Are there explicit, clearly defined requirements for research/scholarly productivity (such as a percentage for each area)?

Our personnel document provides general criteria including the requirement of external validation. Personal criteria for individual faculty members are proposed in professional plans for consideration by the various levels of review. We have been doing this for some time without great success but with our new personnel document we are better focused and think this will work.

b. Is there consistency in requirements across your college?

There is consistency in that everyone has to have a professional plan that leads to external validation of the work proposed. There is flexibility in that the professional plan and criteria for RPT in professional development are personalized for each person. In many cases faculty members are pursuing research agendas with undergraduate and master's students. These follow a path that leads to grant applications, student and faculty presentations at professional meetings, and eventually a peer-reviewed publication prior to tenure consideration. The external validation proposed and established as personal criteria for these faculty members includes receipt of external grants and peer reviewed publications. Some faculty members work on projects funded by industry. Publications are sometimes not possible here because of the proprietary nature of the work; however, the contracts are evidence of external validation. Those working in science and mathematics education have other types of external validation including gaining external funding for pre- and in-service teacher education.

c. Are new faculty required to have professional development plans? If so, can you describe the details of those plans, as well as the process for developing and approving them, and for assessing progress?

Yes. New faculty members and those working towards promotion to full professor are required to have professional plans. The professional plans are considered guides and personalized criteria for personnel action. They are to be worked out by the faculty member and key tenured faculty members from the department so that subsequent

approval at all levels of RPT can be achieved during a personnel cycle. From page 28 of our personnel document:

"F. Professional Plan: The professional plan is a clear description of your planned efforts for growth in teaching, professional development, and service. It describes the path and anticipated achievements you propose for eventual tenure/promotion evaluation, consistent with the general criteria presented in the College personnel document. The plan is a guidance document. Those evaluating you will provide input as to its potential for achieving the desired personnel action.

The professional plan is an especially important part of the Working Personnel Action File. Criteria for personnel action in the College of Science and Mathematics are purposefully general. They are applied to each faculty member via the faculty member's individual professional plan that is developed to demonstrate career-long commitment in teaching, professional development with external validation, and active service and participation in the University community. The plan is evaluated as to whether or not it is an appropriate guide towards tenure and promotion and thus serves as the faculty member's own personalized set of criteria.

The proposed plan and achievements in teaching, professional development, and service for a particular personnel action must be clearly and concisely presented in summary form at the beginning of the written plan. The plan can be elaborated upon in subsequent paragraphs. For those pursuing tenure, the plan may be modified during the probationary years leading to tenure, but should become increasingly defined, specific, and firm as tenure consideration approaches. In addition to submitting the professional plan for each performance evaluation, a statement describing progress in accomplishing the plan should be presented under this titled section.

If tenure is the only action under consideration, the candidate should present a professional plan for the next five years to demonstrate career-long commitment in teaching, professional development with external validation, and active service and participation in the University community

For consideration of promotion to associate professor (or tenure and promotion to associate professor), the candidate should demonstrate how the professional plan for this action has been accomplished and submit an additional professional plan leading to eventual promotion to full professor."

d. Are senior faculty "mentors" assigned to advise tenure-track faculty as they move through the RPT process? Has this been successful in encouraging research and scholarly productivity?

I believe that most tenure track faculty members have acquired personal mentors but I don't think it is always by assignment but more by suggestion and self-selection. These relationships usually are helpful in encouraging scholarly activities though we have faculty members who have strong views of what a "teaching university" should be and these often believe that research should be deemphasized. We encourage collaboration among faculty members in scholarly pursuits; this increases productivity, encourages interdisciplinary ventures, and helps set an understanding and expectation of the role of professional development at Cal Poly.

2. What are the major limitations to research and scholarly productivity in your college?

Time, facilities, money.

Time is a struggle as we really want to meet the needs of our students in labs and lecture scheduling. We are open to larger classes within reason but the facilities are not available.

Chemistry and Physics are in Building 52 with very little research facilities. We have lost excellent candidates for faculty positions because of this. Hopefully we will get enough research space in the new Center for Science and Mathematics to improve the situation. However, we do this almost entirely with fundraising as the CSU generally does not build faculty student research space. Since senior project and such courses are by arrangement, they do not generate space. In the College of Science and Mathematics we schedule senior project and undergraduate research as classes so space is indeed generated though not very much.

Money is an issue but with increased effort to acquire external grants, the C3RP program, and college based fees things have improved. I think it is unrealistic to think the state is going to support research significantly.

3. What strategies have been successful in promoting research and scholarly productivity?

- Clear message that scholarly achievements are expected and must be proposed in professional plan.
- Start up funds for new faculty members: \$15K for lab sciences, \$5K for math and stat. More is available from College Based Fee or depending on needs of the faculty member.
- University contribution to grant applications.
- Encouragement of collaboration: team efforts generally produce more results and more external validation on grants and publications. Being a truly contributing co-PI or co-author are valued in RPT action.
- Formation of Centers of Excellence: In the College of Science and Mathematics these are the Environmental Biotechnology Institute, Western Coatings Technology Center, Center for Coastal Marine Sciences, and the soon to be formed Institute for Obesity Studies and Prevention. These collaborative, interdisciplinary ventures tend to attract funds and achieve results. For example, the Center for Coastal Marine Sciences has received over seven million dollars in grants over the past two years.
- Mathematics Department tries to form internal research groups as one consideration of their tenure track hiring. The Department of Chemistry and Biochemistry and the Biological Sciences Department considers among qualifications the ability to become part of the EBI, WCTC, and CCMS (above) as

well as the Dairy Products Technology Center in Agriculture. Statistics has developed a strong reputation in statistics education.

a. Are these strategies applied uniformly or primarily to assist new faculty?

Emphasis is put on new faculty members to help them get started.

b. Is assigned time used and how?

All new faculty members are given a one-third reduction in teaching load their first year (or second) to assist in establishing a professional program.

Faculty members applying for grants are given assigned time as a college contribution to actually implement a funded proposal.

c. Are class-size adjustments made to reduce faculty teaching loads?

This is limited by facilities. Also Cal Poly philosophy of an undergraduate institution with an accessible faculty must be considered. An example: Mathematics sometimes allows faculty members to teach two sections of 52 students instead of three sections of 35. This cuts down on preps, exam writing, and saves four hours of lecture a week; these three things make a significant difference. The number of students is the same, however, so grading and office hour demand is not diminished and the faculty member does his/her share of SCU generation.

d. How are faculty encouraged to apply for external funding through grants and contracts?

New faculty members are offered \$3K summer salary to begin writing a grant proposal for submission within a year. When funds are available this same strategy is applied to the entire faculty. In some cases assigned time is given but generally faculty members find summer a good time to do this and need the extra compensation.

Assigned time is offered to administer funded grant proposals if release time is possible.

Generous college contributions are allowed in the grant proposal to increase the chance of funding by the granting agency. College based fee has been helpful.

e. Are other strategies used?

We're flexible.

4. What are the top 5-10 activities that are accepted by your college as "research or scholarship"?

Here is our statement on professional development from our personnel document as well as the requirement for external validation.

"Professional Development

Faculty members are expected to initiate, develop, and maintain career-long, creative professional development programs. These programs should be effective in maintaining connection, involvement, excitement, and life-long learning in one's field(s). Collaborative efforts involving students, such as in undergraduate research, are especially valued as are collaborative pursuits with faculty colleagues within departments and across the college and university.

Many forms of professional development are encouraged including those presented in the Carnegie Foundation report *Scholarship Reconsidered: the Scholarships of Teaching, Discovery, Integration, and Application*. It is recognized that professional pursuits change and evolve during a career and could involve more than one of the following.

- *The Scholarship of Teaching*: involves not only transmitting knowledge, but transforming and extending it as well.
- *The Scholarship of Discovery* involves research focused on contributing to the stock of human knowledge.
- *The Scholarship of Integration* involves the work of interpreting, drawing together, and bringing new insight to original research.
- *The Scholarship of Application* involves using knowledge and new research discoveries to solve problems.

Professional development programs are expected to demonstrate external validation. External validation can take many forms including refereed publications, receipt of competitive grants, invited and competitively accepted papers/presentations, national or regional publication of educational materials such as textbooks and software, significant leadership activities in professional societies, and productive collaborations with the public or private sector."

From: Gladys Gregory <ggregory@calpoly.edu>
Date: Mon, 22 Jan 2007 10:33:43 -0800
Subject: Meeting Announcement
To: Academic Deans

>

From: Bill Plummer
Chair, Research and Professional Development committee

"No one should be surprised at the result of an RPT decision, not the applicant, nor the department, nor the College nor the Administration."

This comment by the Provost leads into the charge that has been given to the Research and Professional Development (RPD) committee of: "How do Cal Poly colleges and departments support scholarship? Conduct best-practices study of campus and report to Academic Senate by spring 2007". The RPD committee decided that this could best be done during a question and answer session, with questions to be sent ahead of time.

In an effort to create an atmosphere of collegiality and understand how research/scholarly development is viewed relative to the RPT process, we would like to have each of you, or your representative, attend a committee meeting prepared to answer the questions listed below.

The meeting has been scheduled for Friday, January 26, 2007 at 10:00 am in building 10, room 241.

Please let me know if you or your representative will be able to attend.

Questions for representatives of college **RPT** committees:

Kennedy Library Response (Presented by Navjit)

1. How does research/scholarship factor into RPT decisions in your college?

There are 4 criteria included in the RPT process, namely

- Effectiveness in Library Assignment
- Professional Growth and Scholarly Achievement
- Service to University, Students, and Community, and
- Other Factors of Consideration.

Criterion 2, Professional Growth and scholarly achievement offer guidelines for the candidates where they elaborate their research and scholarship activities. Below are the general guidelines but Library Faculty Handbook also includes guidelines by rank (Assistant Librarian, Senior Assistant Librarian, Associate Librarian, and Librarian).

Successful completion of scholarly research is an essential component of an academic career. On a recurring basis, faculty members are expected to make research contributions to their disciplines. The scope and significance of research contributions increases with years of experience and academic rank. Evidence of excellence in scholarship includes, but is not limited to:

- Meaningful participation in professional activities at the regional, state and national levels, including holding office; presenting invited and refereed papers; attending, planning and conducting workshops, roundtables, and poster sessions;
- Conducting research that informs the library's mission and goals and advances the profession;
- Professional membership, certification, or licensing;

- Continuing professional education, such as formal courses, seminars and workshops;
- Progressing toward or completing a second master's or other advanced degree;
- Publishing in refereed professional journals;
- Contributing to professional literature, such as books, articles, book reviews, editorships, bibliographies, handbooks, and digital authoring;
- Securing grants or external funding;
- Serving as a visiting lecturer;
- Serving as a paid consultant;
- Attaining stature in the profession, including regional, state, and national awards and recognition;
- Possessing a level of special expertise that is acknowledged and sought by colleagues and other professionals;
- Stimulating the professional development of colleagues.

a. Are there explicit, clearly defined requirements for research/scholarly productivity (such as a percentage for each area)?

See above for the guidelines.

Percentage for each area is not defined. Job description of College Librarians includes the following,

- Reference Services 25%
- Instructional Services 25%
- Reference & Inf Desk 15%
- Collection Development 10%
- Digital Services 15%
- Other 10%

b. Is there consistency in requirements across your college?

Yes, among all the different units.

c. Are new faculty members required to have professional development plans?

If so, can you describe the details of those plans, as well as the process for developing and approving them, and for assessing progress?

Yes, they are. The plan is divided into three parts,

- Part I: Self Assessment that includes Professional title, responsibilities, rank; contemplated personnel action and date; strengths, skills, and competencies; Areas of Development
- Part II: Preparation for Personnel Action Requests includes goals for each of the four criteria for which they are evaluated namely, Effectiveness in Library assignment, Professional growth and scholarly development, Service to University, Students, and Community; and Other factors of consideration (includes collegial relationships, aligning their service with university and library mission, maintain high professional standards, etc.)
- Part III: Proposed Action Plan with Timeline that includes relationship to previous year's plan and measurable goals by year.

PDP is developed and periodically assessed in consultation with the supervisor.

d. Are senior faculty "mentors" assigned to advise tenure-track faculty as they move through the RPT process? Has this been successful in encouraging research and scholarly productivity?

They are not automatically assigned but the tenure-track faculty must approach the one they want to be their mentor and fill out the appropriate forms which are turned in to library administration.

2. What are the major limitations to research and scholarly productivity in your college?

Time.

3. What strategies have been successful in promoting research and scholarly productivity?

PDP really helps.

Mentoring and co-authorship.

Grant opportunities.

a. Are these strategies applied uniformly or primarily to assist new faculty?

Both but more to new faculty.

b. Is assigned time used and how?

Yes but goes way beyond that.

c. Are class-size adjustments made to reduce faculty teaching loads?

N/A

d. How are faculty encouraged to apply for external funding through grants and contracts?
Self initiated and/or informally with the help of their supervisor.

e. Are other strategies used?

4. What are the top 5-10 activities that are accepted by your college as "research or scholarship"?

Conference Presentations

Publications in peer reviewed journals

Grants

Brown Bag Series

Poster sessions

Panel discussions

See guidelines listed under question 1 for more details.

Adopted:

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

AS- -07

RESOLUTION ON
CONSOLIDATION OF ACADEMIC SENATE
FAIRNESS AND STUDENT GRIEVANCE BOARDS

- 1 WHEREAS, The Student Grievance Board was established in 1998 to hear "student grievances
2 concerning faculty that do not involve grade appeals and are not covered by
3 existing policies" (AS-500-98/ETF); and
4
- 5 WHEREAS, The Student Grievance Board has never heard a case; and
6
- 7 WHEREAS, The service culture of the University is best served by a committee structure that
8 is compact and robust;
9
- 10 WHEREAS, The Fairness Board has well-defined procedures for handling grade disputes that
11 can be easily modified to deal with disputes currently under the purview of the
12 Student Grievance Board; and
13
- 14 WHEREAS, No significant amount of additional work will accrue to members of the Fairness
15 Board if the responsibilities of the Student Grievance Board are delegated to the
16 Fairness Board; and
17
- 18 WHEREAS, There is no mention of the Student Grievance Board on any of the website
19 students would likely consult when seeking dispute resolution (e.g., Dean of
20 Students, OSRR, Academic Programs); therefore be it
21
- 22 RESOLVED: That the Student Grievance Board be abolished; and be it further
23
- 24 RESOLVED: That the Fairness Board assume the responsibilities of the Student Grievance
25 Board effective immediately; and be it further
26
- 27 RESOLVED: That all references to the Student Grievance Board be removed from the
28 Academic Senate bylaws; and be it further
29
- 30 RESOLVED: That other University documents, including websites, shall be revised
31 immediately to reflect this change; and be it further
32

33 RESOLVED: That the bylaws description of the Fairness Board be revised as follows:

34

35 a. Membership

36 The Fairness Board shall consist of one tenure or tenure track faculty
37 members from each college and one tenure or tenure track member from
38 Student Affairs, all appointed by the Chair of the Academic Senate for two
39 year terms include two student members selected by the ASI with no less
40 than junior standing and three consecutive quarters of attendance at Cal
41 Poly preceding appointment. The Board shall also include as an ex officio
42 member the Vice President of Student Affairs or designee.

43 b. The procedures to be followed and the problems to be considered shall be
44 approved by the Academic Senate and published as a document entitled
45 *Fairness Board Description and Procedures*. Changes in the document
46 shall be made by the Senate upon recommendation of the Fairness Board.
47 The Board shall report to the Provost and Academic Senate Chair;

48

49 and be it further

50

51 RESOLVED: That the Fairness Board shall develop new procedures consistent with this change
52 and with Title V, Article 2, Section 41301; EO 320, 969 and 970; CAM 684; and
53 all other relevant policies; and be it further

54

55 RESOLVED: That these new procedures encourage the informal resolution of a student
56 grievance concerning an instructor within the instructor's department with the
57 possible later involvement of the Dean of Students; and be it further

58

59 RESOLVED: That these new procedures provide that, if informal resolution is not possible, that
60 such a grievance may be presented to a hearing of the Fairness Board; and be it
61 further

62

63 RESOLVED: That these new procedures allow for a student to bring to the hearing an advisor
64 who is ~~not~~ an advocate, legal or otherwise permit a student to bring to the hearing
65 a supportive advocate but not an attorney or legal advisor; and be it further

66

67 RESOLVED: That these new procedures emphasize impartiality, confidentiality, and due
68 process defined as the student's right to be notified and be heard.

Adopted:

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

AS- -07

RESOLUTION ON
ELIMINATION OF ACADEMIC SENATE
FACULTY DISPUTE REVIEW COMMITTEE

- 1 WHEREAS, The Faculty Dispute Review Committee was established in 1999 as the Faculty
2 Ethics Committee; and
3
4 WHEREAS, It is the responsibility of the committee, for all disputes that fall within its
5 jurisdiction, to conduct an investigation of the dispute and to make
6 recommendations to the Provost/Vice President for Academic Affairs; and
7
8 WHEREAS, The service culture of the University is best served by a committee structure that
9 is compact and robust; and
10
11 WHEREAS, The committee has only reviewed one case since being established; and
12
13 WHEREAS, The resolution of faculty disputes would be better served by seeking the services
14 of a trained mediator professional; therefore be it
15
16 RESOLVED: That the Faculty Dispute Review Committee be abolished and that all references
17 to it be deleted from the Academic Senate bylaws; and be it further
18
19 RESOLVED: That other University documents including websites shall be immediately revised
20 to reflect this change.

Proposed by: Academic Senate Executive Committee
Date: April 10, 2007
Revised: April 17, 2007

Cal Poly, San Luis Obispo
Summary Statement of Proposed New Degree Program for
Academic Master Plan Projection

1. Title of Proposed Program.

Bachelor of Arts, Liberal Arts & Engineering Studies

Brief description: This is an innovative interdisciplinary program that with a strong foundation in mathematics, science, engineering and liberal arts, enhanced by a global perspective experience. Students will integrate the planning, testing, evaluation and development work that underlies engineering studies with the creative expression, ethical investigation and aesthetics studies that form the core of the liberal arts. The BA LAES is being proposed as a five-year pilot program. The students will be internal transfers from the College of Engineering who are in good academic standing, but decide after the first year or two of their studies that an engineering career is not for them.

2. Reason for Proposing the Program.

This new degree is being proposed for two main reasons.

1) To prepare our student to address 21st century workforce concerns.

- The educational needs of society calls for graduates whose "exposure to science, mathematics, technology, and engineering during their undergraduate career is good preparation for 'a wide variety of societal roles; and that the nation will depend increasingly on a citizenry with a solid base of scientific and technical understanding' (Center for Science, Mathematics, and Engineering Education, 1996, pA)" From National Academy of Engineers, *Educating the Engineer of 2020*, 2005, p.35.
- Thus, the *SA in Liberal Arts and Engineering Studies* will prepare students for work in both local and global contexts in careers that require
 - broad technical fluency, as well as an ability to examine and articulate the complex sociocultural, political and ethical aspects of issues upon which new public policy and legislation will be developed;
 - integrated new media creation, production, distribution and evaluation in the information and entertainment industries, and the aesthetics of interactive systems design;
 - technological product management, sales and training;
 - various areas of technical communication (e.g., technical writing, public relations, patent law).

2) To increase retention among well-qualified freshman students admitted into the engineering program who find, early on, that although they have the aptitude, they no longer are interested in engineering as a career.

- Cal Poly has consistently lost a sizeable number of its engineering students during the Freshman and Sophomore years as these students, for various reasons, become disenchanted with traditional engineering study.
- Thus, the *SA in Liberal Arts and Engineering Studies* will

- o provide a new path for well-qualified CENG students who realize engineering is not their sole passion;
- o allow for efficient matriculation for students leaving CENG;
- o create opportunities for students to work on projects with a global emphasis and in multidisciplinary teams involving faculty and students from the CLA and CENG.

3. Anticipated Student Demand.

	Number of Students		
	<u>at initiation</u>	<u>3 years after initiation</u>	<u>5 years after initiation</u>
Number of Majors	35	105	120
Number of Graduates*	0	20	90

*total number of graduates at 3 and 5 years after initiation

4. Indicate the kind of resource assessment used by the campus in determining to place the program on the academic plan. If additional resources will be required, the summary should indicate the extent of university commitment to allocate them and evidence that campus decision-making committees were aware of the sources of resource support when they endorsed the proposal.

Resource needs were estimated based upon the number of new courses proposed for the major and administrative and support costs to coordinate the running of the program during the pilot phase. Provost Durgin, Dean Noori, and Dean Halisky have agreed upon a plan of resource support to initiate the program. -

5. If the program is occupational or professional, summarize evidence of need for graduates with this specific education background.

This program is *not* intended as an ABET-accredited engineering program nor is it intended for students interested in careers as professional engineers.

6. If the new program is currently a concentration or specialization, include a brief rationale for conversion.

Not applicable.

7. If the new program is not commonly offered as a bachelor's or master's degree, provide compelling rationale explaining how the proposed subject area constitutes a coherent, integrated degree major which has potential value for students. If the new program does not appear to conform to the Trustee policy calling for "broadly based programs," provide rationale:

The degree provides a niche area for Cal Poly that is not available at UCSB, UC-Davis, UCLA, UCSD, Stanford, Cal Tech, or Berkeley. The program is unique on this campus and to the CSU. No other program on campus or in the CSU combines the mathematical and scientific foundation of Engineering with advanced studies in the Liberal Arts.

Similar programs are successfully established at many schools that compete directly with Cal Poly for the same cadre of high caliber students. Universities that offer similar programs include:

Dartmouth University (A.B., Engineering)
Harvard University (A.B., Engineering)
Johns Hopkins University (B.A, Biomedical Engineering; B.A, Computer Science, B.A, Electrical Engineering, B.A, General Engineering)
Lafayette College (A.B. Engineering)
Princeton University (A.B. in Engineering and the Liberal Arts)
Purdue University (B.S., Interdisciplinary Engineering)
Rice University, (B.A, Electrical Engineering)
Rochester Institute of Technology (B.A, Engineering Science)
University of Arizona (B.A, Engineering)
University of Rochester (B.A, Engineering Science)
Worcester Polytechnic Institute (B.A, Liberal and Engineering Studies)
Yale University (B.A, Engineering Sciences)

8. Briefly describe how the new program fits with the campus mission statement.

The Bachelor of Arts in Liberal Arts and Engineering Studies

- **looks** towards the future of the university as embodied in the revised mission statement:

Cal Poly fosters teaching, scholarship, and service in a learn-by-doing environment where students and faculty are partners in discovery. As a polytechnic university, Cal Poly promotes 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 an academic community, Cal Poly values free inquiry, cultural and intellectual diversity, mutual respect, civic engagement, and social and environmental responsibility.

- **affirms** Cal Poly's polytechnic orientation, while fostering a cross-disciplinary experience combining integrated coursework in engineering, science, and math with an integrated plan of study in the liberal arts.

BACHELOR OF ARTS IN LIBERAL ARTS AND ENGINEERING STUDIES -
CURRICULUM DISPLAY

MAJOR COURSES

CHEM 124 Gen Chemistry for Engineering (83/84)*	4
ENGL 149 Technical Writing for Engineers (A3)*	4
LAES 301 Project-Based Learning in LAES	4
LAES 411 Collaborative Global Partnerships in LAES	4
LAES 461 Senior Project (or other approved SP course)	4
LAES 462 Capstone Senior Seminar in LAES.....	4
MATH 141,142 Calculus I, II (81)*	4,4
MATH 143 Calculus III (85)*	4
MATH 241 Calculus IV.....	4
MATH 244 Linear Systems or Advisor Approved Elective.....	4
PHYS 141 General Physics IA.....	4
PHYS 132, 133 General Physics.....	4,4
Engineering concentration (minimum 8 units at 300-400 level) ...	36
Liberal Arts concentration (minimum 12 units at 300-400 level) ..,	24**
STAT 312/321/350	4
Study Abroad or Global Perspectives courses (300-400 level)***.	4,4
Advisor approved elective	<u>4</u>
	128

GENERAL EDUCATION (GE)

72 units required; 20 units are in Support.

Minimum of 12 units required at the 300-400 level.

Area A Communication (8 units)

A1 Expository Writing	4
A2 Oral Communication	4
A3 Reasoning, Argumentation, and Writing * 4 units in Major ..	0

Area B Science and Mathematics (4 units)

81 Mathematics/Statistics * 8 units in Major	0
82 Life Science	4
83 Physical Science* 4 units in Major	0
84 One lab taken with either a 82 or 83 course	
85 (requirement for Liberal Arts students only) *4 units in Major	0

Area C Arts and Humanities (16 units)

C1 Literature	4
C2 Philosophy	4
C3 Fine/Performing Arts	4
C4 Upper-division elective	4

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 (upper division)

	<u>4</u>
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52

ELECTIVES

	<u>0</u>
--	----------

180

* GE classes; In addition, one USCP course must be taken to fulfill Cal Poly graduation requirements.

** Because this is a 180-unit degree, the Liberal Arts GE program, which requires upper division courses in Areas O (05) and F, as well as an additional course in Area B (B5), is the appropriate GE template. In *most* Liberal Arts concentration options, *at least* 4 units will double-count in GE areas C or O at the upper or lower division level. See concentrations for more specific information.

*** A fall quarter/semester Study Abroad experience will be strongly encouraged for all students and efforts will be made to make sure that this is a viable and affordable option. Financial aid and scholarships may be available to support students who have completed the *Free Application for Federal Student Aid* (FAFSA) form. The International Programs Office already has in place several special affiliation agreements with a number of programs spanning a number of countries and continents, and will welcome the opportunity to pursue more such agreements as programs and needs are identified. For those students who cannot participate in the study abroad portion of the program, National Student Exchange or eight (8) units of integrated, upper division study in Global Perspectives may be selected from a list of approved electives, with an advisor's approval. Neither of these would meet the goals of the program as well, but have been identified as acceptable substitutes.

1) Students will select *one* Engineering Studies concentration from among the following (=36 units):

CSC - Computer Graphics Concentration (34 units)

CSC 100 - Introduction to Computer Science (2)
CSC 101 - Fundamentals of Computer Science I (4)
CSC 102 - Fundamentals of Computer Science II (4)
CSC 103 - Fundamentals of Computer Science III (4)
CSC 141 - Discrete Structures I (4)
CPE 129/169 - Digital Design, Digital Design Laboratory (3+1)
CPE 229/269 - Computer Design & Assembly Language Programming, Laboratory (3+1)
CSC 357 - Systems Programming (4)
CSC 471 - Introduction to Computer Graphics (4)

Electrical Engineering - Power Concentration (34 units)

EE 111/151 - Introduction to EE (2)
EE 112 - Electric Circuit Analysis I (2)
EE 211/241 - Electric Circuit Analysis II, Laboratory (3+1)
EE 212/242 - Electric Circuit Analysis III, Laboratory (3+1)
EE 255/295 - Energy Conversion Electromagnetics, Laboratory (3+1)
EE 355/375 - Electromagnetics, Laboratory (4+1)
EE 406 - Power Systems Analysis I (4)
EE 407/444 - Power Systems Analysis II (4+1)
Advisor approved power technical elective (4)

Industrial/Manufacturing Engineering.... System Design Concentration (37 units)

IME 101 - IntroIndustrial & Manufacturing Engineering (1)
IME 223 - Work Design and Measurement (4)
IME 239 - Industrial Costs and Controls (4)
IME 301 - Operations Research I (4)
IME 303 - Project Organization and Management (4)
IME 314 - Engineering Economics (4)
IME 320 - Human Factors and Technology (4) GE Area F

IME 326 – Engineering Test Design and Analysis (4)
IME 420 – Simulation (4)
IME 443 – Facilities Planning and Design (4)

Production Technologies Concentration (37 units):

IME 101 - Intro to IME (1)
IME 141 - Manufacturing Processes: Net Shape (1)
IME 142 - Manufacturing Processes: Materials Joining (2)
IME 143 - Manufacturing Processes: Material Removal (2)
IME 156 - Basic Electronics Manufacturing (2)
IME 223 - Work Design and Measurement (4)
IME 241 - Manufacturing Process Design (4)
IME 314 - Engineering Economics (3)
IME 335 - Computer-Aided Manufacturing I (4)
IME 336 - Computer-Aided Manufacturing II (4)
IME 342 - Manufacturing Systems Integration (3)
IME 418 - Product-Process Design (4)
IME 455 - Manufacturing Design and Implementation I (3)

Product Development Concentration (36 or 37 units):

IME 144 – Intro to Design and Manufacturing (4)
IME 157 - Electronics Manufacturing (4)
IME 303 - Project Organization and Management (4)
IME 314 - Engineering Economics (3)
IME 335 – Computer-Aided Manufacturing I (4)
IME 357 - Advanced Electronic Manufacturing (4)
IME 401 - Sales Engineering (2)
IME 417 - Supply Chain and Logistics Management (4)
IME 418 - Product-Process Design (4)
IME 455 - Manufacturing Design and Implementation I (3) or IME 559 - Engineering R&D (4) or IME 577 - Engineering Entrepreneurship (4)

Engineering Studies Independent Course of Study Concentration (NCS - 36 units)

The Engineering Studies ICS Concentration allows students to pursue a course of study that has either depth or breadth. Because of the flexibility with the Engineering Studies ICS concentration, students will work closely with program advisors to develop an emphasis area, pairing appropriate engineering classes that cut across traditional disciplinary boundaries with a complementary Liberal Arts concentration. Some possible themes include:

- Digital Media
- Entrepreneurship
- Technology & Policy
- Global Development & Service Learning

Courses in the Engineering Studies ICS concentration may include any course offered by the programs listed below. A total of 36 units are required. The plan of study may include courses from one of these programs, or a combination. A total of 8 units must be at the 300-400 level. ,

- (BMED) Biomedical Engineering
- (CPE) Computer Engineering
- (CSC) Computer Science
- (EE) Electrical Engineering
- (ENGR) General Engineering
- (IE) Industrial Engineering
- (MfgE) Manufacturing Engineering
- (MATE) Materials Engineering
- (SE) Software Engineering

Advisor approved courses in Math, Physics and Chemistry may also be included in the Engineering Studies ICS.

2) Students will also select one Liberal Arts concentration from among the following tracks (24 units):

Culture, Society, & Technology Concentration (24 units)

Required Courses:

ESIWS 350 - Gender, Race, Science, & Technology (4) USCP

HUM 303 ... **Values & Technology (4)** or PHIL 341 – **Professional Ethics (4)** or PHIL

337 - **Business Ethics (4)** All GE Area C4

POLS 451 - **Technology & Public Policy (4)**

Advisor Approved Elective Courses (Select at least 3 from the list below):

ANT 360 - **Human Cultural Adaptations (4)** GE Area D5

CaMS 317 - **Technology & Human Communication (4)**

GEOG 318 - **Applications in GIS (3)**

GEOG 333 - **Human Impact on Earth (4)**

or HUM 350 ... **The Global Environment (4)**

HIST 354 – **History of Network Technology (4)** GE Area F

HIST 359 – **Living in the Material World (4)** GE Area F

JOUR 331 - **Contemporary Advertising (4)**

JOUR 470 - **Selected Advanced Topics in Journalism (4)**

PHIL 322 **Philosophy of Technology (4)** GE Area C4

PHIL 340 **Environmental Ethics (4)** GE Area C4

POLS 347 **Politics & Popular Culture (4)**

PSY 311 - **Environmental Psychology (4)** GE Area D5

PSY 494 ... **Psychology of Technological Change (4)**

Interactive Communication Concentration: Cinematic Focus (24 units)

Required Courses:

TH 210 - **Introduction to Theater (4)** GE Area C3

ENGL 411 - **New Media Art 1 (4)**

ENGL 371 ... **Film Styles and Genres (4)** GE Area C4

Advisor Approved Elective Courses (choose 3):

ENGL 210 - New Media Technology (4)
ENGL 370 - World Cinema (4) GE Area C4
ENGL 372 - Film Directors (4) GE Area C4
SCOM 311 - Communication Theory (4)
SCOM 385 - Media Criticism (4)
SCOM 419 - Media Effects (4)
ENGL 412 - New Media Art II (4)
ENGL 416 - New Media Study (4)
ENGL 417 - Advanced New Media Projects (2) (must be repeated)

Interactive Communication Concentration: Theatrical Focus (24 units)

Required Courses:

TH 210 – Introduction to Theater (4) GE Area C3
TH 227 – Theater History: Classical (4) GE Area C3
or TH 228 - Theater History: 18th-Century to Contemporary (4) GE Area C3
ENGL 411 – New Media Art I (4)

Advisor Approved Elective Courses: (Select 3 courses from the list below - with no more than 1 lower division course)

ENGL 210 – New Media Technology (4)
TH 220 - Acting Methods (4)
TH 310 - Women's Theater (4) or TH 320 - Black Theater (4) or TH 360 - Theatre in the United States (4) or TH 390 - World Drama (4) All GE Area C4
TH 230/330 - stagecraft (4)
TH 430 Introduction to Stage Design: Scenery (4)
TH 434 Introduction to Stage Design: Lighting (4)
HUM 320 - Values, Media & Culture (4) GE Area C4
ENGL 412 - New Media Arts II (4)

Technical Communication Concentration (24 units)

Required Courses:

ENGL 317 - Technical Editing (4)
ENGL 319 - Information Design & Production (4)
COMS 317 - Technology & Human Communication (4)

Advisor Approved Elective Courses (choose 3):

ENGL 210 - New Media Technology (4)
ENGL 310 - Corporate Communication (4)
HUM 303 - Values & Technology (4) GE Area C4
PHIL 337 - Business Ethics (4) GE Area C4
or PHIL 341 - Professional Ethics (4) GE Area C4
COMS 213 - Organizational Communication (4)
COMS 301 - Business and Professional Communication (4)
ENGL 418 - Technical Communication Practicum (4)
or ENGL 420 - Client-Based Technical Communication (4)

Publishing Technology Concentration (24 units)

Required Courses:

GRC 101 - Introduction to Graphic Communication (3)

GRC 201 -- Electronic Publishing Systems (3)
GRC 211 -- Substrates and Ink (4)
HUM 303 -- Values & Technology or PHIL 341 - Professional Ethics or PHIL 337 -
Business Ethics (4) All GE Area C4

Liberal Arts Independent Course of Study Concentration (ICS - 24 units)

Students choosing the Liberal Arts ICS Concentration pursue a course of study that meets their individual needs and interests. Courses are selected with the advice of the student's academic advisor and approved by the program chair.

The Liberal Arts ICS Concentration must meet one of the following requirements: 24 units of an advisor-approved integrated course of study selected from among courses offerings in the College of Liberal Arts, with at least half of the units at the upper division level OR an approved minor program in the College of Liberal Arts selected from among the following minors:

MINOR	UNITS
Art	30
Child Development	28-29
Communication Studies	28-29
Dance	30
English	28
Linguistics	28
Ethnic Studies	24
French	24
German	24
Gerontology (PSY/CD)	28
Graphic Communication	26
History	30
International Relations (POLS)	28
Latin American Studies	28
Law & Society (POLS)	28
Music	30
Religious Studies (PHIL)	24
Philosophy	24
Psychology	28
Sociology	28
Spanish	24
Theatre	28

Values, Technology, & Society	28
Western Intellectual Tradition	28
Women's Studies	28

Courses in the Liberal Arts ICS Concentration may double count with GE courses.

Adopted:

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

AS- -07

RESOLUTION ON
PROPOSAL FOR ESTABLISHMENT OF
THE CAL POLY CENTER FOR GLOBAL AUTOMATED
IDENTIFICATION TECHNOLOGIES (POLY GAIT)

- 1 RESOLVED: That the Academic Senate of Cal Poly endorse the attached proposal for
- 2 establishment of The Cal Poly Center for Global Automated Identification
- 3 Technologies (poly GAIT).


Proposed by: Industrial and Manufacturing Engineering Department
Date: April 23, 2007

CAL POLY

State of California
Memorandum

To: Bruno Giberti, Chair
Academic Senate

Date: April 9, 2007

From: William W. Durgin 
Provost and Vice President
for Academic Affairs

Copies: Susan Opava
Tali Freed

**Subject: Request for Academic Senate Review of the
Proposal for the Establishment of the Cal Poly
Center for Global Automated Identification
Technologies (poly GAIT)**

Attached is a copy of a preliminary proposal to establish the Cal Poly Center for Global Automated Identification Technologies (poly GAIT). In accordance with campus policy for the Establishment, Evaluation and Discontinuation of Centers and Institutes, this proposal received conceptual approval by the Academic Deans' Council at its meeting on April 2, 2007. I would now appreciate the Academic Senate's review of this proposal, if possible, prior to the close of Spring Quarter 2007. Simultaneously an *ad hoc* committee, appointed by me, will review organizational and financial aspects of the proposed center. Please feel free to contact Dr. Tali Freed, Industrial and Manufacturing Engineering Department, author of the proposal should you have any questions or would like her to make a presentation to the Academic Senate.

Thank you, and if you have any questions, please do not hesitate to contact my office.

Enclosure

The Cal Poly Center for Global Automated Identification Technologies (Poly GAIT)

Proposal to the California Polytechnic State University

Executive Summary for the Academic Senate Executive Committee

May 1, 2007

Tali Freed
Industrial and Manufacturing Engineering

Purpose

Background

Purpose:

We propose to grant Poly GAIT, the Cal Poly Laboratory for Global Automatic Identification Technologies, the status of a Cal Poly University Center. The Laboratory was founded in November 2004 by a group of faculty from several CP colleges interested in Radio Frequency Identification (RFID) and other methods of identifying and tracking objects. Such methods are used to prevent loss, theft, and counterfeiting; increase process efficiency; and provide traceability capabilities in cases of health-threatening disasters. Poly GAIT has been supported by the Dean of Research and Graduate Programs, Susan Opava, from its inception, as well as by Dean Wehner, Dean Noori, and Dean Christy. President Baker and interim provost Detweiler have also visited the lab and praised its energetic, multi-disciplinary, project-based learning and innovation.

Poly GAIT has been generously supported by industry, in cash and in-kind donations and project grants. A process developed in the lab has been submitted to the US Patent and Trademark Office for patenting, and several other innovative ideas are currently being developed into potentially patentable and commercially desirable products or processes.

Fifteen faculty from four Cal Poly colleges are actively working on Poly GAIT projects. There are also several hundred students from all Cal Poly colleges who have been trained in RFID courses, presentations, and projects.

Poly GAIT currently focuses on RFID research, however in the future we expect to expand into other areas, mixing process expertise and new technologies, such as biometric identification.

As a University Center the lab will have better structured administration, retain some of its grants overhead, and will be positioned to receive more funding from government and industry.

Background:

Radio Frequency Identification, or RFID, uses radio waves to automatically identify objects. This automatic identification method relies on storing and remotely retrieving data using devices called RFID tags, antennas, and readers. RFID tags are objects that can be attached or incorporated into a product, animal, or person. There are two types of RFID tags, passive and active. Passive tags have no internal power source, so tend to be smaller and cheaper. Active tags require a power source, however they tend to be more reliable and have a farther read distance and larger memories. The antenna enables the chip in the RFID tag to transmit the identification information to a reader. The reader then converts the radio waves reflected from the RFID tag into digital information that can be passed on to computers.

RFID technology is used in many everyday applications and the number and diversity of applications grows daily. For example, passports are being issued in many countries with RFID tags. Beginning in 2007, some new U.S. passports will include RFID technology. The RFID tags will store the same information that is printed on the passport as well as a digital picture of the owner. RFID tags are also used to track books in bookstores and libraries, pallets across supply chains, airline baggage, apparel and pharmaceutical items, as well as for door access control (e.g. CP Kennedy Library). Toll booths and bridges are using RFID for electronic toll collection (California's FasTrak). Many large corporations expect RFID to improve their supply chain management. Wal-Mart and the United States Department of Defense started mandating their vendors to place RFID tags on shipments. These mandates impact thousands of companies worldwide. With the use of RFID progressing, research and development organizations in this field are in high demand.

Poly GAIT has been working with the RFID community on innovative research and development, while providing Cal Poly students with an exciting, hands-on learning environment. Poly GAIT has taken part in many student-led projects. See Appendix A for a full list. Many of these projects incorporate the very problems businesses are encountering when trying to produce and implement RFID systems; while some projects show new ways RFID can help certain industries. For example, CAFES and OCOB students and faculty are currently working on an RFID system for tracking livestock so that diseases can be quickly traced and eliminated. CLA Graphic Communication students are collaborating with CENG Electrical Engineering students to develop printable electronics. Some of the other areas of research being conducted at Poly GAIT are Warehouse Inventory Tracking, Asset Tracking, Door Access Control, Produce Traceability, Antenna Design, Automated Grocery Store Checkout, and Personalized Environment Control. RFID has many possibilities for the future and Poly GAIT hopes to be an integral part in the success of RFID technology and future Cal Poly graduates.

Poly GAIT efforts will focus on three primary activities:

- Education and Training
- Innovative Research and Development
- Solving Industrial Problems

The Poly GAIT laboratory at Cal Poly focuses on groundbreaking research and development that leads to innovative real-world solutions. Poly GAIT is dedicated to providing the best education

and training to students and industrial partners, and fostering collaboration among industry, government, and academia for the advancement of automatic identification technologies.

Few organizations have the resources and expertise to develop solutions exploiting the new opportunities and challenges of RFID technologies. An academic institution highly regarded in all aspects of engineering, business and agriculture is the perfect environment to develop prototype and demonstration systems. Cal Poly, with its strong polytechnic tradition of applied learning and problem solving, is ideally suited to undertake the various applied research challenges, multi-disciplinary investigations, solution development, testing, training, and implementation projects presented by the emerging RFID industry.

In addition to providing education and training, performing innovative research and development, and solving industrial problems, the Center plans to accomplish the following objectives:

- Partner with industry practitioners to develop innovative initiatives
- Enhance the interdisciplinary curriculum and supplement academic learning
- Augment faculty professional development and applied research opportunities
- Generate opportunities for faculty salary supplementation (fees for teaching Center courses, patent royalties, consulting)
- Improve graduating students employment opportunities and entrepreneurial initiatives
- Provide classes and projects to students from various disciplines interested in identification and tracking technologies
- Establish external funding for the Center's on-going activities
- Develop opportunities for student engagement in applied research
- Partner with and strengthen relationships among the different colleges and departments of Cal Poly
- Develop on-going relationships with other education institutions, research institutions and foundations

Adopted:

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

AS- -07

RESOLUTION ON
CONSOLIDATION OF ACADEMIC SENATE UNITED STATES CULTURAL
PLURALISM SUBCOMMITTEE AND CURRICULUM COMMITTEE

- 1 WHEREAS, The Academic Senate United States Cultural Pluralism (USCP) Subcommittee
2 was established in 1992 as a standing subcommittee of the Curriculum Committee
3 for the initial review of courses proposed to fulfill the Cultural Pluralism
4 baccalaureate requirement (AS-396-92); and
5
- 6 WHEREAS, The USCP Subcommittee has in effect operated as a separate standing committee
7 with its own membership separate from the Curriculum Committee; and
8
- 9 WHEREAS, The service culture of the University is best served by a committee structure that
10 is compact and robust; and
11
- 12 WHEREAS, The curriculum process as it is currently defined is responsible for developing
13 recommendations regarding cultural pluralism as it relates to instruction; and
14
- 15 WHEREAS, The existing USCP standards are well defined and the number of new course
16 proposals submitted to the USCP Subcommittee has dwindled (no new USCP
17 course proposals were submitted during 2006-07); and
18
- 19 WHEREAS, According to the Academic Senate bylaws, the Curriculum Committee is
20 responsible for developing recommendations regarding cultural pluralism as it
21 relates to instruction; and
22
- 23 WHEREAS, The Curriculum Committee already reviews all courses proposed for USCP credit;
24 and
25
- 26 WHEREAS, Review of existing USCP courses can be carried out in the context of normal
27 program review; therefore be it
28
- 29 RESOLVED: That the Academic Senate United States Cultural Pluralism (USCP)
30 Subcommittee be abolished; and be it further
31
- 32 RESOLVED: That the Academic Senate Curriculum Committee assume the responsibilities of
33 the USCP Subcommittee effective immediately; and be it further

34 RESOLVED: That all references to the USCP Subcommittee be removed from the Academic
35 Senate bylaws; and be it further

36

37 RESOLVED: That other University documents including websites shall be revised immediately
38 to reflect this change.

Proposed by: Academic Senate Executive Committee
Date: May 1, 2007