Meeting of the Academic Senate
Tuesday, June 2, 2015
UU 220, 3:10 to 5:00pm

I. Minutes: none.

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

III. Reports:
A. Academic Senate Chair:
B. President’s Office:
C. Provost:
D. Vice President for Student Affairs:
E. Statewide Senate:
F. CFA:
G. ASI:

IV. Special Reports:
A. Yearly Program Review Summary by Mary Pedersen, Vice Provost for Academic Programs and Planning and Linda Bomstad, Philosophy Department. (pp. 2-12).
B. Update on the implementation of Office 365 by Michael Green, ITS. (p. 13).

V. Consent Agenda:

<table>
<thead>
<tr>
<th>Program Name or Course Number, Title</th>
<th>ASCC recommendation/Other</th>
<th>Academic Senate</th>
<th>Provost</th>
<th>Term Effective</th>
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<tr>
<td>ENGR 101 Engineering Student Success (1), 1 activity</td>
<td>Reviewed; recommended for approval 5/18/15.</td>
<td>On consent agenda for 6/2/15 meeting.</td>
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VI. Business Item(s):
B. Resolution on Modification of Retention of Exams Policy: Jonathan Shapiro, Fairness Board chair, second reading (p. 15).
C. Resolution to Revise the Periodic Review Guidelines for Campus Centers and Institutes with Academic Affiliation: Rafael Jimenez-Flores, Research, Scholarship and Creative Activities Committee chair, second reading (pp. 16-26).
D. Resolution on the Binding Nature of College and Department Personnel Policy and Criteria Statements: Gary Laver, Academic Senate chair, second reading (pp. 27-28).
E. [TIME CERTAIN 4:15 PM] Resolution on Faculty Involvement in the Development and Articulation of Faculty Salary Adjustment Plans: Ken Brown, Faculty Affairs Committee chair, second reading (pp. 29-33).
F. Resolution on Cal Poly Internship Policy: Dustin Stegner, Instruction Committee chair, second reading (to be distributed at meeting).
G. Resolution on Revising the Criteria for the Distinguished Scholarship Awards: Don Choi, Distinguished Scholarship Awards Committee chair, second reading (pp. 34-37).
H. Resolution to Add the Function of Task Forces: Gary Laver, Academic Senate Chair, second reading (p. 38).
I. Resolution on Proposal to Establish a Master of Science in Business Analytics: Sanjiv Jaggia, Associate Dean Graduate Programs, second reading (pp. 39-45).

VII. Discussion Item(s):

VIII. Adjournment:
Summary of Program Review, Assessment Findings, and Improvement Actions
Academic Programs & Planning, Mary Pedersen, Linda Bomstad
Program Reviews Completed in 2013-2014
May 27, 2015

Eleven programs completed the Program Review Cycle during the 2013-14 AY. The following table lists the programs and the internal campus reviewer for each site visit.

<table>
<thead>
<tr>
<th>Program</th>
<th>Internal Reviewer</th>
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<tr>
<td>Agricultural &amp; Environmental Plant Sciences, B.S. (CAFES)</td>
<td>Michael Yoshimura, Biological Sciences (CSM) - Emeritus</td>
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<tr>
<td>Comparative Ethnic Studies, B.A. (CLA)</td>
<td>Michael Lucas, Architecture (CAED)</td>
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<td>Construction Management, B.S. (CAED)</td>
<td>Eric Olsen, Industrial Technology (OCOB)</td>
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<td>Environmental Management &amp; Protection, B.S.</td>
<td>Chris Kitts, Biological Sciences (CSM)</td>
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<td>Forestry &amp; Natural Resources, B.S. (CAFES)</td>
<td>Hema Dandekar, City &amp; Regional Planning (CAED)</td>
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<td>Fire Protection Engineering, M.S. (CENG)</td>
<td>Kevin Taylor, Kinesiology (CSM)</td>
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<td>Landscape Architecture, B.L.A. (CAED)</td>
<td>Bill Hendricks, RPTA (CAFES)</td>
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<tr>
<td>Modern Languages &amp; Literatures, B.A. (CLA)</td>
<td>Chris Pascual, Mechanical Engineering (CENG)</td>
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<td>Music, B.A. (CLA)</td>
<td>Linda Vanasupa, Materials Engineering (CENG)</td>
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<td>Polymers &amp; Coatings Science, M.S. (CSM)</td>
<td>Trevor Harding, Materials Engineering (CENG)</td>
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<tr>
<td>General Engineering</td>
<td>Rafael Jimenez-Flores, Dairy Science (CAFES)</td>
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The following programs began or continued the process of Program Review during the 2013-14 AY.
• Agricultural Systems Management BS
• Animal Science BS
• Engineering Graduate programs
• ABET Undergraduate programs (ARCE, BRAE, AERO, BMED, CE, ENVE, EE, CPE, CSC, SE, IE, MFGE, MATE, ME)
• Nutrition BS

Summary of Findings
The assessment plans of the eleven programs summarized in this report ranged from well-developed to limited. The majority of programs utilized both direct and indirect methods to assess student learning, while a few utilized only indirect methods. Some of the direct methods included evaluating senior projects, field work, and juried performances, generally with the use of a rubric. A common indirect method used was surveys, including ones of student experience, exiting seniors, alumni, employers / industry professionals. Student focus groups were another form of indirect assessment used by one program.
Overall, the results of surveys from several programs indicated high levels of student and alumni satisfaction in areas including preparedness for work; achievement of program learning outcomes; ability to understand, apply, and communicate subject matter of the curriculum; and ongoing attainment in areas related to professional behavior and leadership. However, one program identified student-reported deficiency in readiness to perform in industry (particularly as related to computer skills, systems coordination, and detail knowledge), knowledge gaps concerning sustainability, and deficiency in communication skills.

Several programs reported positive results in relating senior capstone projects to student learning. Indirect evidence reflected in survey results indicated student belief that capstone projects supported their learning and that the interactions surrounding project work were central to their learning. Direct assessment in one program indicated above average achievement in strength and quality of work, innovative thinking, and using professional concepts and vocabulary to explain and evaluate their work. However, in the area of critical thinking several programs found only average or minimal attainment using the measures they had established. Attainment in the area of writing varied, with some programs reporting high to average levels of student achievement, another reporting student improvement, and still others reporting minimal levels of attainment using the measures they had established.

Review of senior projects also highlighted some areas of concern for programs. One program recognized that their evaluation methods and forms were inconsistent, and that their process lacked inter-rater reliability. Another identified that only a limited percentage of students thought that the outcomes and purpose for the capstone project had been clearly communicated. Still another program indicated that students had difficulty in expressing the significance of their work in certain contexts. At least one program reported that the number of their artifacts was small, and that this put their interpretations of programmatic success at risk.

Actions taken as a result of findings varied from program to program. Several programs modified, revised, or otherwise improved their program learning objectives to ensure that they were measurable, distinctive, or mapped appropriately to the curriculum and university learning objectives (ULOs). Most programs made one or more changes to their curriculum, including revising or augmenting course content as well as rewriting courses and developing new ones. One program developed technical writing standards for their students; another determined to standardize and more clearly communicate their senior project process and guidelines. Lastly, in collaboration with Career Services, one program developed and administered a survey for graduating students as well as one for employers, in order to assess student learning and readiness on an ongoing basis.

1) BS Agricultural & Environmental Plant Sciences, HCS, CAFES

Briefly summarize the findings from the student learning outcomes assessments and indicate if the desired levels of learning were achieved.

HCS directly assessed senior projects using the University Expository Writing Rubric and the AAC&U VALUES Critical Thinking Rubric. Student writing evidenced average attainment in the categories of Purpose, Style and Mechanics. Student work showed minimal attainment in the categories of Support and Synthesis. For critical thinking, students evidenced minimal attainment on all criteria except Explanation of Issues, which showed average attainment.
On an indirect student experience survey, only 46% of students reported that the purposes and expected outcomes of their senior projects had been clearly communicated to them; still, 82% of students who had started or completed their senior projects believed that they understood how the senior project supported their learning. From this faculty concluded that students were formulating their own concepts about expected outcomes of their projects, and that these were most likely not in line with faculty expectations.

The HCS Department published a list of PLOs in the 2013-15 catalog that was quite comprehensive in describing expected student learning. The list functioned well for outreach and marketing purposes; however, as stated, the PLOs proved difficult to assess or measure.

Briefly describe the improvement actions taken based on findings.

As a result of both the direct and indirect assessments of senior projects, the department is committed to standardizing the senior project process, and making the process and guidelines more transparent both to students and all faculty in the program.

In Fall 2013 the department revised its PLOs to better communicate the discipline-specific expectations to students and the broader interface of what they learn or what is expected of them regarding the more holistic ULOs such as critical thinking, ethical decision-making, and making a positive contribution to society. The revised PLOs do a much better job of indicating what students would or could do, or what they would or could demonstrate; they include descriptions that specify actions done by the students that are observable and measurable.

Indicate any other findings from the program review.

Although the department describes its assessable PLOs and their alignment with ULOs and curriculum as “developed to highly developed”, program faculty acknowledge that their assessment planning is still emerging.

Briefly summarize the findings from the student learning outcomes assessments and indicate if the desired levels of learning were achieved.

During an Interim Review, faculty assessed juniors in the Graphic Design, Photography and Studio Art concentrations, looking at visual principles, creative process, presentation, and overall work. Students were given both oral and written feedback on both their work and their presentations. While desired levels were achieved, one of the things the department discovered in doing two annual reviews of our students (Interim and Senior—see below) was that evaluation methods and forms were inconsistent.

External reviewers, both alumni and industry professionals, directly assess student senior portfolios using rubrics in a standardized questionnaire. According to reviewers, student work showed above average achievement in three key learning outcome areas: strength and quality of work; demonstrating innovative thinking; and using professional concepts and vocabulary to explain and evaluate their work. Program faculty do acknowledge that the reliability of these findings is problematic because scoring was not calibrated—i.e., the reviewers were not shown examples of each level of outcome mastery and there were no checks for inter-rater reliability.
The program also uses a number of surveys, administered to faculty, students and alumni/industry professionals. Findings show a high level of student satisfaction with the program and their preparedness for professional work.

**Briefly describe the improvement actions taken based on findings.**

Results from rubric scored portfolios and exhibits, and from surveys, are collected, reviewed and discussed by faculty. One key improvement has been the modification and improvement of the program’s learning objectives. In addition, the program learning objectives (PLOs) have been clearly mapped to both program curriculum and the university’s eight learning objectives (ULO).

The department is currently devising a clearer, more streamlined and consistent method of PLO assessment between the junior and senior reviews in order to evaluate students’ work.

**Indicate any other findings from the program review.**

From student interviews and examinations of student work, external peer reviewers found that the program learning outcomes were being achieved at a high level.

Nevertheless, they found a disconnect between the abundant amount of assessment data collected, and a clear departmental plan to evaluate and communicate assessment results. The external reviewers strongly suggested that faculty take ownership of their assessment process, and develop greater trust in their assessment measures and ability to translate results into meaningful information for reporting and use in program improvement.

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3) BA Comparative Ethnic Studies, CLA

**Briefly summarize the findings from the student learning outcomes assessments and indicate if the desired levels of learning were achieved.**

The program has a well-developed direct assessment plan that includes a rubric assessment of their five PLOs and the University’s Diversity Learning Objective (DLO). The assessment is embedded across their senior sequence of ES 390 (Research Methods), ES 450 (Fieldwork) and ES 461 (Senior Project). The assessment begins with rubric scoring of senior project proposals in 390, and culminates with the use of the same rubric to score the final senior projects in 461. The rubric covers all Ethnic Studies Learning Objectives, Diversity Learning, Writing Proficiency and Critical Thinking.

Data for each learning objective assessed indicates that gains were made in all areas, with the greatest gains in Ethnic Studies Learning Objectives and Diversity Learning Objectives.

The program review report stated that interpretation of these gains should be cautious, as the number of student artifacts was small.

Indirect assessment measures used include student focus groups, and surveys of both alumni and students. Results of the focus groups further confirmed that their interactions during work on senior project, both inside and outside the classroom, were central to their learning. The surveys indicated that students and alumni believe they have gained knowledge and been educated in the PLO areas of the program.

**Briefly describe the improvement actions taken based on findings.**

Given findings, faculty on the review committee had no significant recommendations for change; instead, they believed the process of assessing senior projects was valuable and effective. In addition, they stated that data from the direct assessments and focus groups confirmed the importance and value of sequencing ES 390, 450 and 461.
Indicate any other findings from the program review.
ES faculty plan to archive student work from their lower division courses for future assessment of PLOs in the early stages of the program.

4) BS Construction Management, CAED

Briefly summarize the findings from the student learning outcomes assessments and indicate if the desired levels of learning were achieved.
The Construction Management program conducts and interprets several indirect measures of their PLOs, including the CAED Graduating Student Survey, Senior Exit Interview (now called the Graduating Senior Forum), Post-Graduate Interviews, CLA results for BSCM majors, and CM Industry Advisory Committee Meetings.
Examples of student work are available for each course in the program, and offered as evidence of student achievement; the program does not conduct direct assessment of student portfolios.
In the CAED Graduating Student Survey assesses perceived outcome attainment and the gap between perceived attainment and perceived importance are measured, yielding a Gap Score. CM faculty mapped survey questions to their six PLO's. Findings confirmed ongoing success in student learning related to professional behavior and leadership. The greatest Gap Score was in the area of readiness to perform in the construction industry, and was mapped specifically to the CAED questions regarding computer skills, systems coordination and detail knowledge. The next greatest Gap Score related to the CM PLO concerning sustainability. The third greatest Gap Score was connected to written communication skill.

Briefly describe the improvement actions taken based on findings.
Based on the findings from the Graduating Student Survey, CM faculty are currently addressing the consistency of teaching fundamental readiness skills across the curriculum. For example, Building Information Modeling has become a stand-alone elective topics course, and a variety of software directed toward project estimating, delivery, and quantity takeoff have been integrated into relevant CM courses (CM 415, 214 and 313). In addition, Commercial Construction Management P6 Scheduling software is used in several courses, along with Microsoft Project. Contracts software is also used in CM 334, Construction Law.
The program has addressed sustainability in a major way with the introduction of CM 317, Sustainability and the Built Environment.

Indicate any other findings from the program review.
A national certification exam for students is under discussion. Written communication skills are being subjected to further assessment with the introduction of the CLA, which was administered to a cohort of CM students.
Briefly summarize the findings from the student learning outcomes assessments and indicate if the desired levels of learning were achieved.

Direct assessment of PLOs included a continued trend analysis of student learning using a grading rubric in NR 414; analysis of data from a grading rubric used in NR 315, focused on written communication, technical knowledge and problem-solving; and a rubric scoring of senior projects in NR4 16.

Indirect assessments include a student Self-Assessment of Team Project in FNR 465. In addition, Cal Poly Career Services pilot tested a new Employer Survey that was administered to NRM graduates (both FNR and ENVM majors) to measure the quality of graduates, their industry readiness, job performance and promotion capabilities.

Findings indicated a “highly developed” correlation between expected learning outcomes and graduate/employer responses. Evidence also indicates improved student learning in NR 414 and NR 465, particularly in the area of written communication.

Briefly describe the improvement actions taken based on findings.

NRES faculty developed technical writing standards for students in NR 414 and NR 465. The NRES department, working with Dr. Martin Shibata in the Career Services Center, has developed and administered both an Employer Survey and a Graduating Student Survey (in the capstone NR 465) for ongoing assessment of student learning outcomes, readiness for the workplace, and promotion potential.

A Senior Project assessment rubric has been further developed.

NRES faculty developed an improved definition/distinction between FNR and ENVM program learning outcomes.

Routine, scheduled assessment is ongoing.

Indicate any other findings from the program review.

Six-year graduation rates have improved since the 2009 program review.

According to the Annual Graduate Status Report produced by the Career Center, graduates are finding employment related to their discipline.

Graduating FNR and ENVM students are satisfied with their education at Cal Poly.

Briefly summarize the findings from the student learning outcomes assessments and indicate if the desired levels of learning were achieved.

Faculty in Landscape Architecture use a variety of methods to assess student competency to obtain entry-level positions in the profession, including student work generated throughout the five-year program, a digital archive of student work, and the gallery of student work displayed during the LAAB2014. These measures indicate that, upon graduation, student work demonstrated competency required for professional entry-level positions.

These measures further evidence student attainment of expected learning outcomes in the areas of critical and creative thinking. In addition, LA students also are able to understand, apply and communicate the subject matter of the professional curriculum as evidenced through project definition, problem identification, information collection, analysis, synthesis, conceptualization and implementation.
Briefly describe the improvement actions taken based on findings.
The department is developing standards to formalize a process to collect and audit existing rubrics from
the design studio offerings within the curriculum.
The department is developing standards to formalize a process of academic mentorship to achieve
balance between teaching, research/scholarship, and service.

Indicate any other findings from the program review.
Cal Poly’s Landscape Architecture program ranked fourth nationally, and first among 13 states in the
western region, in the 2014 DesignIntelligence report.

7) BA Modern Languages & Literature, CLA

Briefly summarize the findings from the student learning outcomes assessments and indicate if the
desired levels of learning were achieved.
The Modern Languages and Literature Department reports several finding from multiple direct
assessments:
At the intermediate level, multiple assessments of French/German students showed that they were able
to express themselves appropriately in the spoken languages, but struggled with formal written
expression. Assessments included evaluation of writing samples from embedded final exam questions
and final essays.
Related to the problem of written expression, intermediate French/German students further evidenced
a problem with finding, assessing and reporting on information. Intermediate level students also did not
reach the expected level of in-depth literary analysis.
In their capstone senior projects, French/German students demonstrated proficiency with
understanding and evaluating written language, but still did not attain expected proficiency in their own
written expression.
Assessment of Spanish capstone senior projects showed students demonstrating proficiency in reading
and evaluation. In addition, the senior projects evidenced intermediate to high levels (surpassing 80%)
of proficiency in accessing and understanding information, and in evaluating data/information. Finally,
the senior projects showed expected levels of student learning in the area of understanding
cultural/linguistic differences, in the ability to demonstrate knowledge, and in the ability to write
creatively.
However, Spanish senior projects did not evidence expected levels of learning in written
communication, or in in-depth analysis and appreciation of cultural/linguistic differences; this shows
that student learning is below expectation in regard to critical thinking in relation to knowledge of
target-language artifacts. Student work also showed difficulties with articulating final synthesis of
research findings and/or difficulty expressing significance of one’s work in an artistic or cultural context.

Briefly describe the improvement actions taken based on findings.
Improvement actions include:
- Revised and augmented the intermediate series, adding a third course (MLL 203) to French,
  German and Mandarin Chinese; targeted skills in reading and written communication.
- Rewrote all intermediate level courses in order to emphasize different aspects of interpersonal
  communication, and to increase emphasis on cultural and critical thinking.
- With consultation from CTLT, twice revised program learning outcomes and better aligned them
  with university learning outcomes.
• Revised Spanish, French and German 305 from “Significant Writers” to “Significant Works”, thus including other cultural artifacts such as film and non-fiction.
• Created Spanish 307 (Spanish and Latin American Film) where students learn to express critical thinking through media analysis.
• Created MLL 360 (Research Methods), a professionally oriented course that better serves both academic and professional needs of graduating seniors.
• Proposed, for the 2015-17 catalog, requirements to have study abroad experience, or an internship or service-learning experience in the U.S., or an equivalent professional level hands-on experience to replace the existing written senior project requirement.
• Proposed for the 2015-17 catalog: (1) an increase of 4 units of upper division coursework, and (2) a combination of any two 400-level courses to fulfill the 8 unit capstone requirement in Spanish.

Indicate any other findings from the program review.
In alumni surveys, 82% of respondents were satisfied with their senior project. Many recommended that the capstone experience be tied to study abroad or internship experience, which further supports the proposed catalog changes above.
In addition 78% either agreed or strongly agreed that the MLL program adequately prepared them for their current employment positions.
Finally, 92% either agreed or strongly agreed that their MLL major experience was rewarding.

8) BA Music, CLA

Briefly summarize the findings from the student learning outcomes assessments and indicate if the desired levels of learning were achieved.
The Music Department uses multiple direct, performance-based methods to assess student achievement of their PLOs, including juried performances a various points in the major course of study. In addition, they also conduct surveys of alumni and current students. On surveys, students either agreed or strongly agreed that they attained the Music Department’s program learning objectives through their musical experience at Cal Poly. On their surveys, over 60% of alumni strongly agreed that they had attained the Department’s learning objectives. On the basis of direct and indirect evidence, the department finds that it is doing a very good job of preparing students for a wide variety of fields.

Briefly describe the improvement actions taken based on findings.
Music Department faculty do wish to explore improvements in the areas of providing more available units of study, and strengthening the balance between the academic and performing elements of the program.

Indicate any other findings from the program review.
Briefly summarize the findings from the student learning outcomes assessments and indicate if the desired levels of learning were achieved.

This was the first program review since conversion of the program from pilot to permanent status in 2008. The prior, pilot, period saw the program coordinator heavily involved in fund raising activities to support the Kenneth N. Edwards Coatings Technology Center that is now a part of the new facility in the Warren J. Baker Science and Mathematics Center. In addition, a great deal of time and effort was spent planning and executing the move to the Baker Center. The program faculty are now ready to turn their attention to assessing student learning outcomes in the current review cycle.

One indirect assessment activity was conducting during spring 2013, where students were invited to join a meeting held in order to gather their input regarding the status of the programs. Fifteen students and all primary program faculty attended the meeting. Their input is summarized below:

- Do more to increase program awareness outside Cal Poly; make better use of the program website and Facebook page
- Include more information about students (past and present), accomplishments such as publications, awards, job placements in the website
- Provide better advising
- Make the content of fall, winter, spring, sequence of core courses flow better. They are somewhat disjointed.

Briefly describe the improvement actions taken based on findings.

With support from the College Dean’s Office, an effort is currently underway to improve the program website. Recent improvements in the University Graduate Program website have also contributed to this effort.

Indicate any other findings from the program review.

The program in Polymers and Coatings Science has developed excellent, measurable program learning objectives/outcomes, including five general learning objectives that are further developed into concrete, measurable expected student learning outcomes. Reviewers recommended gathering direct assessment evidence of PLO attainment. The faculty has reached consensus of the relative priority of each PLO, and their assessment will unfold as follows:

1. Integrate and apply technical and conceptual knowledge.
2. Demonstrate problem-solving skills.
3. Demonstrate an understanding and proficiency in research.
4. Effectively communicate as professionals.
5. Exhibit an understanding of professional development and conduct
Briefly summarize the findings from the student learning outcomes assessments and indicate if the desired levels of learning were achieved.

The Fire Protection Engineering MS degree program at Cal Poly was developed and approved during the 2009-2010 academic year as a self-support pilot program offered by the College of Engineering through Special Session. Following a comprehensive program review during the 2013-14 academic year, the program was converted to regular status.

The education objective of the program is to provide students with the knowledge, skills and tools needed to solve fire protection engineering problems and develop fire safety design solutions in a variety of settings. To meet this educational objective, program faculty have established six excellent, measurable program learning objectives.

External FPE professionals and academics directly assessed student capstone projects in FPE 596 using a standard rubric. FPE faculty set the minimum acceptable criterion. Students performed above the minimum acceptable criterion of 67% (Acceptable) on all student learning outcomes; therefore, the students have achieved all the student learning outcomes by graduation.

In addition, employers completed a survey that asked them to rate student levels of performance on the six PLOs. In conclusion, based on the employer survey, the FPE program is meeting its program goals and is supporting the needs of the FPE industry by providing well-educated graduates who are day one ready. The program will continue to solicit industry input as changes to the program are made in the future.

In January 2014, all nineteen FPE students completed a graduate survey in which they assessed their own level of performance on the six PLOs. Over 90% of graduates were very satisfied or satisfied with their experience in the FPE program. This survey is an indirect measure; however, it still provides valuable information when compared to the direct measurement performed in FPE 596.

Briefly describe the improvement actions taken based on findings.

The success of the students is paramount to the continued success of the FPE program. We are looking for ways to enhance the student learning experience both for our on-campus and on-line students. We have recently taken ownership of a new FPE program office/classroom. This new room is located in Room 320 of Building 192. This new facility will not only be used as the program director’s office but will also be the primary classroom for FPE classes. In addition, the room will be equipped with computers for student usage, a FPE library, and a conference space for on campus students to work together and socialize. This new space will enhance the on campus students’ experience.

As part of our strategic plan, the FPE program is planning on hiring faculty members who can teach FPE classes and who can pursue research in FPE. This research will allow for the on campus students to participate in current research projects and potentially develop into thesis projects.

For distance students, the program is currently reviewing enhancements to the on-line delivery of the course material to improve the student experience. While the vast majority of students are satisfied with the on-line delivery of course material, there is always room to make this better. New changes in technology will be evaluated and changes made if warranted. Overall, the focus for the next few years will be to enhance the on campus experience so we can attract high quality students directly from their undergraduate career.
Indicate any other findings from the program review.
The hybrid model is working well for FPE program delivery. The on-campus cohort of students has been growing steadily since program inception and the new workspace provides an attractive space for on-campus students to study and interact with each other. The online cohort of students has also been growing steadily since program inception, providing financial stability for this self-support program as well as an enthusiastic group of students and alumni who are helping the FPE program recruit new students and develop a strong reputation in the FPE field.

An important improvement will occur when new faculty members are hired to participate in the FPE program. These faculty members will be expected to engage in scholarly research, which should help to reinforce the recruitment of on-campus students.
A new chapter in collaboration at Cal Poly is coming with the move from Zimbra to Office 365 this summer. Your email, calendar, address book and task data will be copied to Office 365 beginning in late June.

**When is this happening?**  
**June 17 - July 5**

Email, calendar and other collaboration services will be available during migration window.

Limited downtime will occur the weekend of June 20-21.

**What will be migrated?**

- Email
- Calendar
- Contacts
- Tasks

**What won't be migrated?**

- Filters
- Signatures
- Out-of-Office Settings
- Saved Searches

**Before migration...**

Delete unnecessary email and briefcases.

When possible, limit the scheduling of recurring events beyond the end of June 2015. If you can't delay until July, plan to double check recurring meeting entries once the migration of calendar data is complete.

**What about Briefcase?**

Visit the Office 365 page on the Service Desk website to find out how you can migrate Zimbra Briefcase files to Office 365 OneDrive.

ITS will provide assistance as needed.

**Where do I go for more information?**

Office 365 demo sessions have been scheduled which will include details about the migration and a preview of the Office 365 collaboration tools. Additional help sessions will be scheduled during the summer quarter and into the fall quarter.

servicedesk.calpoly.edu/office-365-demo-sessions | servicedesk.calpoly.edu/office-365
WHEREAS, The Academic Senate of Cal Poly, San Luis Obispo has received widespread expressions of concern from faculty and staff about the present efficacy and responsiveness of governance on campus; and

WHEREAS, A series of conflicts over the last few years has highlighted issues related to communication, and transparency and shared governance, has opened serious rifts in our shared sense of community, and has contributed to extremely low morale; and

WHEREAS, Cal Poly, San Luis Obispo needs to refocus its attention on its core mission to serve our students and community through teaching, research and service; and

WHEREAS, A fresh look at the Cal Poly, San Luis Obispo situation from outside the campus could help diagnose problems and identify solutions, therefore be it

RESOLVED: That the Academic Senate of Cal Poly, San Luis Obispo requests that Chancellor Tim White undertake a review of the governance at Cal Poly, San Luis Obispo governance, and that this review begin fall quarter 2015. We recommend that the review should broadly and confidentially consult with all relevant campus leaders and groups – including faculty, staff, students and all levels of administration. We urge that the Chancellor use the findings of the review to implement any measures needed to improve the meaningful communication and transparency efficacy of management and to help restore a strong sense of shared governance purpose to our campus governance; and be it further

RESOLVED: That the Academic Senate of Cal Poly, San Luis Obispo make this request respectfully, with a desire for a constructive outcome, and with no preconceived vision.

Proposed by: Wyatt Brown, CAFES Senator
Date: May 13, 2015
Revised: May 15, 2015
Revised: May 27, 2015
WHEREAS, Students have the right to view their final exams, papers, projects, or other tangible items used as evaluation instruments; and

WHEREAS, Such access is necessary for a student to understand the grade which was assigned and, if he or she finds it necessary, dispute it by filing a complaint with the Fairness Board; and

WHEREAS, There are often times following the completion of a quarter, especially over the summer, when either the student or the faculty member is away from campus, or unforeseen circumstances, such as illness by either a student or instructor, which delay access by the student to these evaluation instruments beyond the current one quarter minimum retention period required of instructors; and

WHEREAS, Faculty are often unaware of even the current requirement that they maintain evaluation instruments and records for at least one quarter; therefore be it

RESOLVED: That the following changes be made to the appropriate section of the CAM Academic Programs website (wording following AS-247-87/SA&FBC):

"Faculty Responsibilities Regarding Retention of Exams and Other Evaluation Instruments
Exams, papers, projects, or other tangible items used in the evaluation of students need not be retained by the instructor beyond the end of the term of evaluation, if there was an announced opportunity for students to retrieve same during the term. For final exams or other evaluation instruments where no announced opportunity for student review existed before the end of the term, instructors should retain the materials for one two full quarters. While special situations may arise requiring deviation from this goal, instructors will be responsible to defend any deviation in the event of a subsequent review of a student’s evaluations”; and be it further

RESOLVED: That the Deans of the colleges be encouraged to make their faculty aware of this policy on retention of exams, papers, projects, or other tangible items used as evaluation instruments, and student access to same.

Proposed by: Academic Senate Fairness Board
Date: March 30, 2015
Revised: May 26, 2015
WHEREAS, The Academic Senate Executive Committee charged the Research, Scholarship & Creative Activities (RSCA) Committee with the review of CAP 260, including subsection 262 related to Campus Centers and Institutes; and

WHEREAS, On October 24, 2014, Executive Order 751 – Centers, Institutes, and Similar Organizations on Campuses of the California State University was replaced with coded memorandum AA-2014-18; and

WHEREAS, The RSCA Committee has evaluated and suggests certain revisions to the Program Review (aka Periodic Review) process for Campus Centers and Institutes; therefore be it

RESOLVED: That the attached Periodic Review Guidelines for Campus Centers and Institutes with Academic Affiliation be approved as a replacement for Program Review Guidelines for Campus Centers and Institutes with Academic Affiliation, approved by the Academic Senate on March 11, 2014.

Proposed by: Research, Scholarship and Creative Activities Committee

Date: April 21, 2015
BRIEF SUMMARY OF REVISIONS TO POLICY RELATED TO PERIODIC REVIEW
FOR CENTERS AND INSTITUTES
(SUMMARY DOCUMENT, REV. MAY 27, 2015)

1. Periodic Review Guidelines for Campus Centers and Institutes with Academic Affiliation.

A. TITLE/DESCRIPTION.
   i. The former policy (and its predecessor) used the term "program review." This was awkward and confusing, because program review is affiliated with academic, degree granting activities.
   ii. In order to avoid confusion with program review, the term "periodic review" has been implemented in the revised policy.

B. TIMING.
   i. FORMER POLICY. The former policy had a recurring five year cycle. During the CSU audit of centers and institutes (13-14) on our campus, the auditor noted that many of our centers and institutes had not performed a periodic review for over five years. To address that audit finding, our campus agreed to implement a five year rotation for all centers and institutes.
   ii. NEW POLICY. Last year, the CSU has issued an administrative memorandum which allows up to seven years between periodic reviews for centers and institutes. In order to comply with our audit finding, we will continue to use a single five year cycle for all centers and institutes to bring them up to currency, and thereafter will implement a seven year cycle (e.g. every center/institute in existence at time of the audit will complete a periodic review within the originally scheduled five year period, and thereafter a seven year schedule will be implemented).

C. SELF STUDY AND INTERNAL/EXTERNAL REVIEWERS.
   i. FORMER POLICY. The former policy consisted of a self-study document, provided by Center/Institute Director, but did not fully address reviewers. (The policy prior to that addressed reviewers, including an external reviewer).
   ii. ISSUE. It would be beneficial to address the composition and timing of the review team/process.
   iii. NEW POLICY. The new policy addresses the review team composition, including an external reviewer, as well as the schedule.

D. BEST PRACTICES.
   i. FORMER POLICY. The former policy did not address how corrective actions, identified in the periodic review, would be implemented to assure continuous improvement.
   ii. ISSUE. Periodic review should address corrective action plans and continuous improvement focus.
   iii. NEW POLICY. The new policy provides guidelines for implementation of corrective action and continuous improvement.
1. Overview
These guidelines govern periodic review for Campus Centers and Institutes with academic affiliation at the College or University level. Such Campus Centers and Institutes are engaged in the enhancement of selected areas of research, teaching, and service.

This policy does not apply to central administrative or service units such as the Gender Equity Center, the Multi-Cultural Center, the Advising Center, or the Center for Teaching, Learning, and Technology, which serve campus-wide functions and which may also use the term "Center" or "Institute." These guidelines do not apply to State or Federal centers or institutes which are governed by separate policies associated with the enabling entity (e.g., Small Business Development Center which is formed through the Federal Small Business Administration, or the CSU Agricultural Research Institute which is a system wide Institute governed by the CSU).

In accordance with the University's policy for the Establishment, Evaluation, and Discontinuation of Campus Centers and Institutes with Academic Affiliation, and the California State University Chancellor's Office Coded Memorandum (CODE: AA-2014-18, dated October 24, 2014), periodic review is required for all Campus Centers and Institutes with academic affiliation (hereafter "Centers/Institutes").

2. Distinguishing Factors of Periodic Review for Centers/Institutes
The periodic review of Centers/Institutes differs from program review for degree granting academic programs offered by an academic college. Unlike an academic college, Campus Centers/Institutes do not award degrees and do not have a degree granting program curriculum committee.

Centers/Institutes operate in the context of supporting the campus mission in the areas of research, scholarship, public service, training, experiential learning, instructional support, and/or other types of co-curricular activities. Centers/Institutes are not expected to create academic assessment plans, because academic assessment plans are designed to evaluate a specific degree granting program.

For clarity, periodic review is different from the annual report requirement for all Centers/Institutes, more fully described in the Policy for the Establishment, Evaluation, and Discontinuation of Campus Centers and Institutes with Academic Affiliation (Approved by the Academic Senate, March 11, 2014).

3. Periodic Review Process
The Director of the Center or Institute, in collaboration with faculty actively involved in the subject Center/Institute, is responsible for proposing the Review Team composition, preparing the Self Study Report, and addressing any requests for additional information or clarifications, each as more fully described below in this policy.

If the Center/Institute lacks a Director at the time of scheduled periodic review, the Vice President for Research and Economic Development shall identify an appropriate substitute to perform the necessary tasks.
4. Composition of Review Team
The Review Team for the Self Study Report shall consist of:
(A) One director from another Cal Poly Center or Institute;
(B) One faculty member from Cal Poly (not affiliated with the Center or Institute undergoing periodic review);
(C) One external reviewer (not affiliated with the Center or Institute undergoing periodic review) with expertise in the field associated with the Center or Institute; and

It is the duty of the Director of the Center or Institute to identify potential Review Team members, as well as consult with and obtain approval of the Dean of the Academic College affiliated with the Center or Institute undergoing periodic review (or the Vice President of Research and Economic Development if the Center or Institute is not affiliated with an Academic College) on the composition of the Review Team. Following such consultation and approval, the Review Team shall be appointed. Review Team members are tasked with reviewing and commenting upon the Self Study Report, and conducting a visit to the facilities of the Center or Institute.

5. Contents of Self Study Report for Centers/Institutes
The Self Study Report shall be structured to address the activities of the Center or Institute from a perspective of both quantitative and qualitative contributions to the campus. For example, the number of students and faculty participating in a particular event, or the number of peer reviewed journal articles which contain research related to center/institute activities, can be measured as quantitative output. Research and experiential activities that link to any University Learning Objectives, Sustainability Learning Objectives, Diversity Learning Objectives, and/or program based learning objectives may serve as forms of qualitative support.

The Self Study Report shall address each of the following items:

(A) Executive Summary.

(B) Situational Analysis on outcomes related to the activities of the Center/Institute:
   (1) Statement of Center/Institute Mission and description of how activities have aligned with that mission, including any suggested revisions to the mission.
   (2) Overview of how Center/Institute has supported College/University goals, in accordance with organizational documents for Center/Institute.
   (3) Detailed information regarding academic outcomes related to Center/Institute activities, including references to support of any Academic Program learning goals/learning objectives, as well as University Learning Objectives, Sustainability Learning Objectives, and Diversity Learning Objectives. To the extent the Center/Institute collaborates with academic units on collecting assessment data, provide the data and an analysis of the data.
   (4) Detailed information regarding teaching, research, and service associated with the Center/Institute, including grants, seminars, competitions, training sessions, community events, and other activities, along with details of faculty/student/industry/community participation and attendance.

(C) Intellectual Contributions.
   Detailed list of intellectual output resulting from Center/Institute activities. Include faculty and student research, faculty/student peer reviewed journal publications, theses,
conference presentations, and other intellectual contributions directly related to Center/Institute activities.

(D) Financial and Resource Condition.
Financial disclosure shall provide for transparency on the financial status and source/use of funds. Describe the financial and resource situation for the Center/Institute, including projected sustainability of Center/Institute activities and sources of funding.

(E) Accomplishment of Corrective Actions and Achievement of Aspirational Goals Identified in Prior Periodic Review.
Discuss and describe improvements and aspirational goals which were identified in the prior program review and how those improvements/aspirational goals were achieved. If certain goals were not achieved, discuss and describe why, including a corrective action plan (if applicable).

(F) Aspirational Goals.
Describe the aspirational goals of the Center/Institute for the upcoming seven year time period, including details of how these goals will benefit stakeholders and how fiscal and other resources will be obtained to support these goals.

(G) Safety and Ethical Conduct of Research.
Discuss and describe the methodology, training, and protocols implemented to assure safety of persons, protection of property, and ethical conduct of research associated with activities of the Center/Institute.

An appendix containing copies of supporting documentation may provide beneficial artifacts and evidence to support the analysis contained within the Self Study Report.

6. Timing of Periodic Review
The Vice President of Research and Economic Development shall post a periodic review schedule which complies with the Chancellor's Office policy. The Self Study Report and periodic review shall address the time period from the previous scheduled periodic review up to and including the most recent completed academic year, but need not include the current academic year during which the Self Study Report and periodic review is prepared and due.

The deadlines are as follows (references are to dates within the academic year in which the periodic review is scheduled to occur):

(A) Director identifies potential Review Team members and obtains approval for composition of Review Team - October 1;

(B) Review Team members are formally appointed - October 15;

(C) Director submits completed Self Study Report to Review Team members - February 1;

(D) Review Team members transmit request (if any) for clarification on contents of Self Study Report to Director - March 1;

(E) Director submits clarification to Review Team - March 21;
(F) Review Team submits final written comments on Self Study Report to Director - April 15;

(G) Director submits Self Study Report, clarifications, Review Team comments, and any rebuttal to Review Team comments to the Dean of the Academic College affiliated with the Center or Institute undergoing periodic review - May 1.

(H) Following review of the materials in Section 6(G), the Dean of the Academic College affiliated with the Center or Institute undergoing periodic review and the Vice President for Research and Economic Development shall consult and provide copies of these materials and any comments to the Provost and Executive Vice President for Academic Affairs.

Copies of the documents described in Section 6(C) through 6(G) shall be simultaneously transmitted to the Dean of the Academic College affiliated with the Center or Institute undergoing periodic review and the Vice President for Research and Economic Development.

In the event of exigent circumstances which merit an extension, the Vice President for Research and Economic Development may grant an appropriate extension.

7. Action Items

    Based upon the information from the periodic review, the Provost and Executive Vice President for Academic Affairs, the Dean of the Academic College affiliated with the Center or Institute, and/or the Vice President for Research and Economic Development may request clarifications and/or a corrective action plan from the Director of the Center or Institute. The Director shall address such items in a timely manner. The periodic review documents shall be stored by the Office of the Vice President for Research and Economic Development.
Periodic Review Guidelines for Campus Centers and Institutes with Academic Affiliation

(DRAFT 3/18/13 from RSCA to Academic Senate)

NOTE: This document replaces and supersedes the Program Review Guidelines for Campus Centers and Institutes with Academic Affiliation

(Approved by the Academic Senate on March 11, 2014)

1. Overview

These guidelines govern periodic review for Campus Centers and Institutes with academic affiliation at the College or University level. Such Campus Centers and Institutes are engaged in the enhancement of selected disciplinary areas of research, teaching, and service.

This policy does not apply to the establishment or running of central administrative or service units such as the Gender Equity Center, the Multi-Cultural Center, the Advising Center, or the Center for Teaching and Learning, and Technology, which serve campus-wide functions and which may also use the term "Center" or "Institute." These guidelines do not apply to State or Federal centers or institutes with a presence on campus, which are instead governed by separate policies associated with the enabling entity (e.g. Small Business Development Center which is formed through the Federal Small Business Administration, or the CSU Agricultural Research Institute which is a system wide Institute governed by the CSU).

In accordance with the University's policy for the Establishment, Evaluation, and Discontinuation of Campus Centers and Institutes with Academic Affiliation, and the California State University Chancellor's Office Executive Order Number 751, periodic program Coded Memorandum (CODE: AA-2014-18, dated October 24, 2014), periodic review is required for all Campus Centers and Institutes with academic affiliation (hereafter "Centers and Institutes" or "Centers/Institutes").

2. Distinguishing Factors of Program Periodic Review for Centers and Institutes

Program review for Centers and Institutes is different from program review for degree granting academic programs offered by an academic college. Unlike an academic college, Campus Centers and Institutes do not award degrees, are not formed or operated for the exclusive purpose of delivering curricula for specific degree granting programs, and do not have a degree granting program curriculum committee.

Instead, Centers and Institutes operate in the context of supporting and contributing to the campus mission in the areas of research, scholarship, public service, training, experiential learning, instructional support, and/or other types of co-curricular activities. Centers and Institutes are not expected to create academic assessment plans, because academic assessment plans are designed to evaluate a specific degree granting program.

As a result of these differences between an academic college offering degree granting programs, and the support role of the campus, periodic review is different from the annual report requirement for all Centers and Institutes. It is beneficial to outline types of deliverables expected more fully described in connection with program review associated with the Policy for the Establishment, Evaluation, and Discontinuation of Campus Centers and Institutes with Academic Affiliation (Approved by the Academic Senate, March 11, 2014).

3. Periodic Program Review Team Process
The program review will be prepared and submitted by the Director of the Center or Institute, in collaboration with faculty actively involved in the subject Center/Institute, is responsible for proposing the Review Team composition, preparing the Self Study Report, and addressing any requests for additional information or clarifications, each as more fully described below in this policy.

If the Center/Institute lacks a Director at the time of scheduled periodic reviews, the Vice President for Research and Economic Development shall appoint a willing individual to handle the program review duties, following consultation with the Dean of the Academic College where the Center/Institute is aligned on the organization chart (as applicable). The person responsible for preparing and submitting the Self Study Report may enlist necessary tasks.

4. Composition of Review Team
The Review Team for the assistance of other willing volunteers to assist the Self Study Report shall consist of:

The (A) One director from another Cal Poly Center or Institute may, but is not required, to include external constituents, such as members of business/industry and/or external peer reviewers. The involvement of external reviewers is ideal in situations where the affiliated with the Center or Institute engages in substantial off-campus activities undergoing periodic review.

(B) One faculty member from Cal Poly (not required, to include external constituents, such as members of business/industry and/or external peer reviewers. The involvement of external reviewers is ideal in situations where the affiliated with the Center or Institute engages in substantial off-campus activities undergoing periodic review.

(C) One external reviewer (not affiliated with the Center or Institute undergoing periodic review) with expertise in the field associated with the Center or Institute, and

It is the duty of the Director of the Center or Institute to identify potential Review Team members, as well as consult with and obtain approval of the Dean of the Academic College affiliated with the Center or Institute undergoing periodic review (or the Vice President of Research and Economic Development if the Center or Institute is not affiliated with an Academic College) on the composition of the Review Team. Following such consultation and approval, the Review Team shall be appointed. Review Team members of business and industry are tasked with reviewing and commenting upon the Self Study Report, and conducting a visit to the facilities of the Center or Institute.

45. Contents of Program Review
Self Study Report for Centers and Institutes
The Self Study Report shall be structured to address the context of program review, Centers and Institutes may broadly categorize activities of the Center or Institute from a perspective of both quantitative output and qualitative outcomes/ contributions to the campus. For example, the number of students and faculty participating in a particular event, or the number of peer reviewed journal articles which contain research related to center/institute activities, can be measured as quantitative output. The caliber of sophistication in research and experiential activities can also be described as qualitative outcomes, and ideally would link to any one or more University Learning Objectives, Sustainability Learning Objectives, and/or Diversity Learning Objectives, and/or program based learning objectives may serve as forms of qualitative support.

As Campus Centers and Institutes are based upon a wide range of goals and missions, there is not a single format or scope of program review dictated as a standard. However, the program review team should carefully consider the inclusion of the following relevant items in a program review report.
The Self Study Report shall address each of the following items:

(A) Executive Summary.

(B) Academic Situational Analysis on outcomes related to the activities of the Center/Institute (Faculty and Student Activities and engagement):
   (1) Statement of Center/Institute Mission and description of how activities have aligned with that mission, including any suggested revisions to the mission.
   (2) Overview of how Center/Institute has supported College/University goals, in accordance with organizational documents for Center/Institute.
   (3) Detailed information regarding seminars, competitions, training sessions, community events, and other activities hosted or sponsored by the Center/Institute, including details of faculty/student/industry/community participation and attendance.

(C) Intellectual Contributions.
   Detailed list of intellectual output resulting from Center/Institute activities. Include faculty and student research, faculty/student peer reviewed journal publications, theses, conference presentations, and other intellectual contributions directly related to Center/Institute activities.

(D) Financial and Resource Condition.
   Financial disclosure shall provide for transparency on the financial status and source/use of funds. Describe the financial and resource situation for the Center/Institute, including projected sustainability of Center/Institute activities and sources of funding.

(E) Accomplishment of Corrective Actions and Achievement of Aspirational Goals Identified in Prior Periodic Review.
   Discuss and describe improvements and aspirational goals which were identified in the prior program review and how those improvements/aspirational goals were achieved. If certain improvements/aspirational goals were not achieved, discuss and describe why, including a corrective action plan (if applicable).

(F) Future Aspirational Goals.
   Describe the aspirational goals of the Center/Institute for the upcoming five-year time period, including details of how these goals will benefit stakeholders and how fiscal and other resources will be obtained to support these goals.

(G) Conclusion.

Whenever reasonably possible, evidentiary support in a program review report is highly
(G) Safety and Ethical Conduct of Research.

Discuss and describe the methodology, training, and protocols implemented to assure safety of persons, protection of property, and ethical conduct of research associated with activities of the Center/Institute.

An appendix containing copies of supporting documentation provides may provide beneficial artifacts and evidence to support the analysis contained within the Self Study Report.

6. **Program Timing of Periodic Review**

The Vice President of Research and Economic Development shall post a periodic review schedule which complies with the Chancellor’s Office policy. The Self Study Report and periodic review report shall address the time period from the previous scheduled periodic review up to and including the most recent completed academic year, but need not include the current academic year during which the Self Study Report and periodic review is prepared and due.

5. **Timing of Program Review Report**

Each Center/Institute shall file a complete program review report once per every five-year period. Academic Affairs publishes a schedule for Center/Institute program review reports in accordance with this timeline. If a Center/Institute is scheduled for program review within a particular academic year, the program review team shall be convened no later than November 1 of that academic year; and the program review report shall be due to Academic Affairs no later than March 1 of that academic year (e.g., program review due AY 2013-2014, team convened by November 1, 2013, and report filed by March 1, 2014). It is the duty of the Center/Institute Director to assure that these program review activities are completed in a timely fashion. In order to assure compliance with the program review deadlines, the Provost and Executive Vice President for Academic Affairs may declare the Center/Institute inactive and freeze all financial accounts associated with the Center/Institute when a program review report is not filed on time. If a program review report is thereafter filed (on a tardy basis), the Provost and Executive Vice President for Academic Affairs may reactivate the Center/Institute or may dissolve the Center/Institute. The deadlines are as follows (references are to dates within the academic year in which the periodic review is scheduled to occur):

(A) Director identifies potential Review Team members and obtains approval for composition of Review Team - October 1;

(B) Review Team members are formally appointed - October 15;

(C) Director submits completed Self Study Report to Review Team members - February 1;

(D) Review Team members transmit request (if any) for clarification on contents of Self Study Report to Director - March 1;

(E) Director submits clarification to Review Team - March 21;

(F) Review Team submits final written comments on Self Study Report to Director - April 15;

(G) Director submits Self Study Report, clarifications, Review Team comments, and any rebuttal to Review Team comments to the Dean of the Academic College affiliated with the
Center or Institute undergoing periodic review - May 1.

(H) Following review of the materials in Section 6(G), the Dean of the Academic College affiliated with the Center or Institute undergoing periodic review and the Vice President for Research and Economic Development shall consult and provide copies of these materials and any comments to the Provost and Executive Vice President for Academic Affairs.

Copies of the documents described in Section 6(C) through 6(G) shall be simultaneously transmitted to the Dean of the Academic College affiliated with the Center or Institute undergoing periodic review and the


   (A) The Provost and Executive Vice President for Academic Affairs (or designee) will evaluate each program review report for completeness and sufficient detail, including evidentiary support. The program review report shall be deemed accepted by Research and Economic Development.

   In the event of exigent circumstances which merit an extension, the Vice President for Research and Economic Development may grant an appropriate extension.

7. Action Items

   Based upon the information from the periodic review, the Provost and Executive Vice President for Academic Affairs if no clarifications or elaboration are requested within sixty (60) days, the Dean of original submission of the program review report.

   (A) In the event that clarifications or elaboration in the program review report are deemed necessary or desirable, the Provost and Executive Vice President for Academic Affairs shall serve the responsible individual for the program review of such College affiliated with the Center or Institute with one or more, and/or the Vice President for Research and Economic Development may request(s) for further information. The response to each such request must be completed and submitted within thirty (30) days clarifications and/or a corrective action plan from the date of request, unless a longer time period is allowed by the Provost and Executive Director of the Center or Institute. The Director shall address such items in a timely manner. The periodic review documents shall be stored by the Office of the Vice President for Academic Affairs. The program review report shall be deemed accepted by the Provost, Research and Executive Vice President for Academic Affairs if no further clarifications or elaboration are requested within sixty (60) days following submission of the latest response to a request for clarifications or elaboration.

Revision: January 28, 2014; Approved by Academic Senate: March 11, 2014 Economic Development.
Adopted:

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

AS-__-15

RESOLUTION ON THE BINDING NATURE OF COLLEGE AND DEPARTMENT PERSONNEL POLICY AND CRITERIA STATEMENTS

WHEREAS, Shared governance is a common value of Cal Poly’s faculty and administration; and

WHEREAS, College, school, and department personnel policy and criteria statements are a concrete expression of our mutual respect for shared governance; and

WHEREAS, Such a statement—once agreed upon by a department’s or a school’s faculty and their Dean, and then formally approved by the Provost and President—becomes official in the management of department or school personnel matters; and

WHEREAS, Such statements are endorsed by Cal Poly administration through its posting of these agreements on Cal Poly’s Academic Personnel webpage (http://www.academic-personnel.calpoly.edu/content/policies/criteria); and

WHEREAS, The Dean of a school is selected by and serves at the pleasure of the Dean of the college, Provost, and President; and

WHEREAS, Both department chairs and heads, are selected by and serve at the pleasure of the Dean, Provost, and President, but the faculty at Cal Poly recognize an important distinction between these two positions in the periodic selection/endorsement by a department’s faculty of its candidate for chair, whereas no such regular process occurs concerning a department head; and

WHEREAS, If a college’s or department’s personnel policy and criteria statement includes detailed material concerning the selection and the term of a department chair but makes no mention whatsoever of the position of a department head, any effort to install a department head, interim or otherwise, would therefore be contrary to the formal agreement its faculty have with the administration; and
WHEREAS, The absence of any material in a department's or school's personnel policy and criteria statement concerning a particular form of leadership position may be taken to indicate the department's or school's disinterest in that form of leadership; and

WHEREAS, When two parties enter into an agreement, each has the right to expect it to be honored; and

WHEREAS, The unilateral discarding by campus administration of any personnel policy and criteria statement originally sanctioned by them would represent a serious breach of shared governance and set an alarming precedent undermining faculty trust in the meaning of all such campus agreements; therefore be it

RESOLVED: That, consistent with the general tenets of shared governance, the Academic Senate requests any intentions to convert department-chair positions to department-head positions at Cal Poly shall include meaningful two-way consultation between campus administration and the faculty of the departments and programs so involved; and be it further

RESOLVED: That the Academic Senate request all Dean-, Provost-, and President-approved college, school, and department personnel policy and criteria statements currently in effect or adopted in the future be considered fully binding unless and until such time as they are formally revised and approved by mutual agreement of a department's faculty, their Dean, the Provost, and the President.

Proposed by: Academic Senate Executive Committee
Date: May 8, 2015
Revised: May 15, 2015
Revised: May 26, 2015
WHEREAS, The CSU faculty contract allows the CSU to fund campus-specific ways to address salary inequities according to campus and region specific needs; and

WHEREAS, Article 31.12 of the Collective Bargaining Agreement states: “The President shall consult with representatives of the campus CFA chapter in developing the procedures and criteria to be used in determining the distribution of such equity awards;” and

WHEREAS, Salary inequities include salary compression, salary inversion, and substandard salaries for the lowest paid junior faculty; and

WHEREAS, The President and Provost announced that Cal Poly has implemented the first stage of a four year salary adjustment program to address these salary inequities for faculty; and

WHEREAS, The Cal Poly President and Provost have stated that there is no greater problem at Cal Poly than salary inequities; and

WHEREAS, The Academic Senate was not involved in the initial formation of this salary adjustment program; and

WHEREAS, In the interest of shared governance, the Senate Chair has asked the Faculty Affairs Committee to work with the administration and the CFA to provide faculty input in the further articulation and development of Cal Poly’s salary adjustment program; and

WHEREAS, The Provost has also requested that the Faculty Affairs Committee assist in further articulation and development of Cal Poly’s salary adjustment program beyond the first stage already in place; therefore be it

RESOLVED: That the Academic Senate endorse acknowledge and appreciate the work of the Faculty Affairs Committee in producing the attached Achieving Salary Equity for Cal Poly Faculty report, which proposing recommends goals for assessing and articulating salary adjustment plans; and be it further

RESOLVED: That the Academic Senate request that the administration deliver to the Faculty Affairs Committee a budgetary feasibility report on the implementation of the salary adjustments programs in light of the goals articulated in the attached Faculty Affairs Committee report; and be it further

RESOLVED: That the Academic Senate urge the administration and local CFA leadership to consult with the Academic Senate about any further development of salary adjustment programs, and to do so at the initial stages of the development of such programs: engage in a transparent and
cooperative consultative process to produce a comprehensive salary equity plan for Cal Poly faculty to mitigate the negative impact of years of declining faculty real compensation equity related salary issues; and be it further

RESOLVED: That the Academic Senate urge the administration and the CFA to consider the attached report as an example of a thoughtful and well designed plan for salary equity adjustment; and be it further

RESOLVED: That the Academic Senate request periodic reports on the progress of the campus-wide plans for future resolutions to salary equity issues, and budgetary feasibility reports on the implementation of the salary adjustment program.

Proposed by: Faculty Affairs Committee
Date: May 14, 2015
Revised: May 26, 2015
This report from the Faculty Affairs Committee to the Academic Senate advises the administration concerning goals for the next three stages of the salary adjustment program, especially the second stage to be implemented July, 2015. Ideally, the administration will provide to the Senate budgetary feasibility reports on our recommendations for further discussion.

Specifically, we provide advice on implementing two types of equity adjustments for the next rounds of salary adjustments: 1) Baseline Salary Equity (i.e. setting minimum salaries for assistant, associate, and full professors), and 2) General Salary Equity (i.e. targeting inversion and compression, faculty below CSU averages for rank and department, and full professors with stagnant salaries). We also advise that the next phases of salary adjustment provide meaningful salary increases for lecturers, with emphasis on the 3-year entitled lecturers. However, it is not for us to dictate an appropriate salary structure for lecturers. The wide range of duties and degrees held by lecturers (from bachelor’s to M.D. and Ph.D.) suggests that their salary concerns must be addressed through consultation between Academic Personnel, Deans, and lecturer representatives.

These aspirational goals for the administration to use in formulating the next three phases of the salary adjustment program take into consideration all Unit 3 faculty. However, the budgetary realities of adjusting faculty and staff base salaries (and benefits), and achieving a satisfactory level of equity across all ranks, must be quantified so that we can tailor our goals and phase them in over the next three stages of the Salary Adjustment Program.

Two categories of salary equity adjustments for Tenure/Tenure-Track Faculty:

We recommend that the administration employ two forms of adjustments to salaries. Baseline salary equity adjustments define an absolute minimum salary for faculty: salaries below the baseline need to be adjusted (at least) to that baseline. General salary equity adjustments apply to compression and inversion adjustments, full professors with flat salaries since promotion, and to faculty whose salaries merit adjustment by being below standards for comparison with other comparable faculty. We describe each of these salary adjustment instruments below and offer recommendations for the use of each. Our recommendations concerning these instruments serve two functions:

1. Framing overall goals for salary equity at Cal Poly
2. Formulating clear means to aim towards achieving these goals

Since the salary adjustment program consists of four stages, one of which is already completed, clear overall goals and clear means for achieving those goals would aid in partitioning the effort to achieve those goals into manageable steps whose purpose can be can be more easily understood and communicated.

Baseline Salary Equity

Baseline salary equity defines an absolute minimum salary for faculty for each year in rank as a function of three things: the absolute baseline minimum salary of an Assistant Professor, minimum salaries for each year in rank as a compounded percentage of the Assistant Professor minimum, and a minimum step for promotion to a higher rank.

a) Minimum for Assistant Professors (now set at $65k/yr),

b) 1.25% compounded per year at rank (5 yrs. for Assistant, 4 yrs. for Associate),

c) 7.5% promotion (contract minimum) sets minimum for next rank,

d) Halt annual steps at SSI max.
The value for (a) has already been determined in the first stage of the salary adjustment program ("SAP1"); we simply preserve this number for the purpose of explaining the further aspects of baseline salary equity. The value of (a) could change due to future GSI as a result of contract negotiations, or from decisions at Cal Poly that a higher minimum salary is appropriate for newly hired Assistant Professors.

The values of percentage annual and rank promotion steps used in (b) and (c) together approximate the percentage step from the Assistant Professor minimum to the Associate Professor minimum on the current Unit 3 salary schedule (approximately 14.5%). The annual step percentage is nothing more than a rate that when compounded for the nominal number of years in rank would use the contract minimum for promotions (7.5%) to define the minimum for the next rank. Repeat that process and a minimum step to Full Professor would likewise be calculated.

Using Baseline Salary Equity as a guide, we have a recommendation for structuring SAP2: use compounded annual steps and the contract minimum promotion rate from the new minimum Assistant Professor salary of $65,000 to calculate new minimum salaries for Associate and Full Professors, and the annual steps from the three rank baselines. Then, adjust salaries that fall below their annual step up to their annual step. Doing so would achieve Baseline Salary Equity for those faculty whose salaries are below the baselines. We ask for a budgetary feasibility report on the implementation of this recommendation.

Baseline Salary Equity requires that faculty salaries may not fall below their annual step at rank. Implementing adjustments from this instrument would arrest compression and inversion at the bottom end of the salary scale, and do so according to a clear rubric. Salary inequities above the baseline require alternate means of relief, and that is what is covered in the next section.

**General Salary Equity**

- Adjust salaries for compression/inversion inequities at the department level, based on rank
- Adjust salaries for long-serving Full Professors who typically have had a flat salary since promotion.
  - Account for time in rank in adjustments
  - May use 5 year periods used for PT review for future step increases
- Adjust salaries that are below averages for peer CSU departments, or peer departments at other institutions

Compression/inversion salary equity adjustments should continue. The adjustments should be on a department basis, based on rank. Academic Personnel and the deans should identify cases with all faculty considered as potential candidates.

Long serving Full Professors who have not had raises since promotion should be considered for equity salary adjustments. Priority should be based on time served at that rank. This should be coordinated with a long term recommendation to use 5 year Post Tenure reviews as occasions for salary adjustments with consideration of the results of the performance review.

Salaries that are below averages for peer CSU departments should also be adjusted. Salaries should also be competitive with peer departments at other institutions. Such comparisons should take into consideration the stature of Cal Poly's programs and the pools of students with which they compete. Deans, department heads and Academic Personnel should work to identify peer departments competitive salaries.

**Second phase of the salary adjustment program should implement both baseline and general equity adjustments**

- Neither the baseline nor general salary equity provisions get a substantially smaller allotment than the other.
Emphasis should be given to groups whose salary inequities were not addressed with the first round.

Our desideratum for the completion of the salary adjustment program is to treat baseline and general equity adjustments as comparably compelling concerns. At the same time, since the salary adjustment programs shall be implemented in four phases, one of which is already complete, we think that a shift in emphasis for the second phase is appropriate towards those groups/individuals that were not targeted on the first phase.

Once the groups to be targeted, the individuals in them deserving adjustment, and the target level of adjustment for each individual are identified the task remains as to how to apportion the available funds among the above identified individuals.

We did not reach a consensus in this regard. Rather, we identified two alternative ways to proceed. One alternative is to first divide the available funds into three separate sub-funds, one for each type of claim (baseline, general equity adjustments, lecturer adjustments—see below), and then apportion the amount in each sub-fund among all the identified individuals from that group in proportion to their target level of adjustment. Were there to be a ‘surplus amount’ in any of those sub-funds after meeting the targets for the individuals in those groups, the surplus amount would be added to the funds available to the other groups. This method has the advantage that it recognizes that all three groups of claims deserve, in principle, substantial consideration in the apportionment process.

A second alternative is simply to divide the available funds among all the identified individuals from all groups in proportion to their target level of adjustment, up to the meeting of all individual targets. This method has the advantage that it is conceptually simpler, and that it treats all claims to the available funds on equal footing, regardless of the source of the claim.

**Equity for Lecturers**

Lecturers need meaningful inclusion in the subsequent implementations of SAP, both with respect to baseline and general equity adjustments to lecturer salaries. We recommend that the focus initially be on inequities for the 3 year entitled lecturers, and it seems to make good sense to phase equity adjustments in at the time of contract renewal. This spreads the budgetary burden of addressing these inequities across the remaining three implementations of SAP. Deans and Academic Personnel need to work together to find solutions specific to the diverse body of lecturers in each college. We strongly recommend that Deans and the office of Academic Personnel determine how to exhaust other alternatives for addressing salary inequities before tapping into SAP funds. We request that, based on this consultative work, the office of Academic Personnel formulate a budgetary report for the cost of implementing appropriate equity adjustments that identifies which inequities could be addressed by means outside of SAP, and which would be better addressed within the scope of SAP.

**FAC Members:**
- D. Kenneth Brown, CLA (chair) (dbrown07@calpoly.edu)
- Pat M. Fidopiastis, CSM
- Jim Guthrie, CAED
- Gary Laver, Senate Chair (ex officio, non-voting)
- Albert Liddicoat, Admin (ex officio)
- Vittorio Monteverdi, ASI (ex officio)
- Aydin Nazmi, CAFES
- Hugh Smith, CENG
- Eduardo Zambrano, OCOB
- PCS vacant
RESOLUTION ON REVISION OF THE CRITERIA FOR THE DISTINGUISHED SCHOLARSHIP AWARDS

Background: In 2003, the Academic Senate passed AS-602-03/RP&D, Resolution on Establishing a Faculty Award to Recognize Distinguished Research, Creative Activity, and Professional Development at Cal Poly. The Award was administered by the Academic Senate Research and Professional Development Committee. In 2005, the Academic Senate passed AS-638-05, renaming the Award as the Distinguished Scholarship Award and renaming the committee the Distinguished Scholarship Awards Committee. Committee membership parameters currently adhere to revisions found in AS-671-08, Resolution on Changes to the Bylaws of the Academic Senate.

WHEREAS, Cal Poly is an institution known for its high quality of undergraduate education, and

WHEREAS, The Academic Senate defines scholarship in broad terms as the scholarships of discovery, application, integration and teaching/learning (AS-725-11); and

WHEREAS, The Academic Senate of Cal Poly has established a “Distinguished Research, Creative Activity and Professional Development Award” (AS-602-03/RP&D); and

WHEREAS, The Academic Senate resolved to establish a “Distinguished Research, Creative Activity and Professional Development Awards Committee” to conduct the selection process and determine on an ongoing basis the policies and criteria to be used for selecting recipients of the award; and

WHEREAS, The Academic Senate resolved to rename the “Distinguished Research, Creative Activity and Professional Development Award” the “The Distinguished Scholarship Award” (AS-638-05); and

WHEREAS, The criteria for the Award have not been revised since the award’s original incarnation as the “Distinguished Research, Creative Activity and Professional Development Award;” and

WHEREAS, The Award is designed to honor work of faculty conducted primarily at Cal Poly and celebrate both exemplary specific accomplishments and outstanding bodies of achievement; and

WHEREAS, The aforementioned “General Guidelines” and “Selection Criteria” of the document will benefit from revision in light of AS-725-11, and can be more

Adopted:

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

AS-____-15
succinctly stated in a streamlined revision titled "Award Description and Criteria"; therefore, be it

RESOLVED: That the "General Guidelines" and "Selection Criteria" document appended to AS-602-03/RP&D be revised in light of AS-725-11 with other updates in the form of the attached streamlined document titled "Award Description and Criteria"

Proposed by: Distinguished Scholarship Awards Committee
Date: April 28, 2015
Distinguished Scholarship Awards Committee

Revised award description and criteria
Approved by the Academic Senate on June 2, 2015

Award Description:

The Academic Senate Distinguished Scholarship Awards Committee invites nominations for the Distinguished Scholarship Award. Each year, three awards are presented, each accompanied by a cash prize of $2,000.

These awards recognize achievement in scholarship and creative activity across the entire range of disciplines represented at Cal Poly. They honor work conducted primarily at Cal Poly and celebrate both exemplary specific accomplishments and outstanding bodies of achievement.

Faculty, students, staff, and alumni may submit nominations. Faculty members may nominate themselves. All nominations must be submitted using the online nomination form.

Eligibility:

All nominees must be current members of the Cal Poly faculty (i.e. members of collective bargaining unit 3) and must be active at Cal Poly for at least one quarter during the academic year in which they are nominated (for example, faculty who are on leave for an entire academic year will not be eligible for that year). Faculty members at all ranks are eligible as long as they have completed at least three years of full-time service or its equivalent at Cal Poly.

Selection Criteria:

Because this award is intended to recognize the full range of scholarship and creative activity possible at Cal Poly, the criteria listed below are necessarily incomplete. Moreover, it is expected that the work of any given nominee will meet some, but not necessarily all, of these criteria.

1. Quality of the creative or scholarly work as evidenced by any of the following:
   - Extensive peer recognition of the work as substantial, seminal, and scholarly
   - Contributions to improvements in the human condition and quality of life
   - Use of the ideas, techniques, and creative work by industry, practitioners, and others

2. Importance of the scholarly work to students as evidenced by any of the following:
   - Influence of the nominee’s scholarly and creative work on student learning
   - Effectiveness in furthering scholarship and creative activity among students
   - Quality and significance of related senior projects, theses, and other student work
   - Influence of the work on curriculum improvement and enhanced student learning experiences

3. Importance of the scholarly work to Cal Poly as evidenced by any of the following:
   - Enhancement of the reputation of Cal Poly or its academic units
- Significance of grants and contracts received
- Mentoring and facilitating the professional development of other faculty and staff
- Recognition from industry, professional and academic organizations, and other institutions

Distinguished Scholarship Awards Committee:

The Distinguished Scholarship Awards Committee includes at least one voting General Faculty from each College and from Professional Consultative Services. General Faculty representatives should include former recipients of the Distinguished Scholarship Award. Ex officio members consist of a representative appointed by the Provost from the Office of Research and two ASI representatives – one undergraduate and one graduate student. The ex officio members are voting members, as per VIII.B. of the Bylaws of the Academic Senate.
RESOLUTION TO ADD THE FUNCTION OF TASK FORCES

RESOLVED: That the *Bylaws of the Academic Senate* be amended as follows:

VIII. COMMITTEES

A. GENERAL

The functional integrity of the Academic Senate shall be maintained by the committee process. The committee structure shall include standing committees staffed by appointment or ex officio status, elected committees staffed by election, and ad hoc committees or task forces staffed either by appointment or election as directed by the Academic Senate Executive Committee. The Executive Committee may create ad hoc committees or task forces as it deems necessary for specific purposes, which, in the judgment of the Academic Senate Chair, cannot be handled adequately by the standing committees. Only the Executive Committee is authorized to create ad hoc committees or task forces, and these shall report to the Academic Senate by way of the Executive Committee.

Proposed by: Academic Senate Executive Committee
Date: March 11, 2015
Revised: May 27, 2015
Adopted:

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

AS-__-15

RESOLUTION ON PROPOSAL TO ESTABLISH A MASTER OF SCIENCE
IN BUSINESS ANALYTICS

WHEREAS, There is a demonstrated state and national level need for business professionals
with the requisite skills to make decisions informed by the increasing wealth of
data available through varied sources, and

WHEREAS, The existing graduate programs at the Orfalea College of Business or Cal Poly at
large do not have an analytics-specific core of business courses and the
distinguished status of a stand-alone MS in Business Analytics, and

WHEREAS, The proposed self-support program is a comprehensive, one year, interdisciplinary
business degree program that encompasses economics, finance, accounting,
marketing, and information systems, and

WHEREAS, The Academic Senate Curriculum Committee has evaluated and recommended the
program for approval, and

WHEREAS A summary of the program is attached to this resolution with the full proposal
available in the Academic Senate office, therefore be it

RESOLVED: That the proposal for the Master of Science in Business Analytics be approved by
the Academic Senate of Cal Poly.

Proposed by: The Orfalea College of Business
Date: May 12, 2015
New Program

Title: Master of Science in Business Analytics
Type: Self-Support, Fully face to face
Proposed Launch date: Fall 2016

Program Overview and Rationale

In the increasingly competitive marketplace, organizations need business professionals with the requisite skills to make decisions informed by the increasing wealth of data available through varied sources. The importance of data analysis on organizational success has created what Rob Bearden (CEO of Hortonworks) believes is the biggest demand and supply imbalance ever of people with data analytics skills in the workforce. According to the Bureau of Labor Statistics, the data analysts job category is expected to grow by 45 percent, from 156,000 in 2008 to 285,000 by 2018, making it one of the fastest-growing career fields. Despite the tremendous interest in the field, projected supply will not meet the market’s future demand. McKinsey Global Institute estimates that by 2018 in the US alone, there will be a shortage of 140,000-190,000 people with analytical expertise and a shortage of 1.5 million managers and analysts with the expertise to make decisions based on the analysis of big data. The Orfalea College of Business of Cal Poly is addressing this urgent need through an innovative Master of Science (MS) in Business Analytics program designed to produce graduates who understand business environments and possess the problem formulation, statistical, computing, and decision making skills to solve businesses’ most pressing problems, while advancing their professional careers in the exciting and fast-growing field of data analytics. The intent is to train “managers” who will be able to make better business decisions with data analytics rather than simply creating “data analysts”.

Other universities have also responded to the need for data analysts; several universities have either launched or have plans to launch certificate and masters programs in data analytics. Some of these programs, often in a field labeled as Data Science, have a strong technical, computer programming focus where predictive analytics is performed by connecting complex machine learning algorithms to big data. Although purely technical skills are necessary to answer important questions, and will serve a particular market well, we believe that it is the economic and business intuition combined with data analytics that is highly desirable and vitally important. Many industry leaders state that telling a story with data is critical to the success of the data analyst. Tom Davenport (Distinguished Professor at Babson College) argues that, “It may seem obvious that anyone who is doing data analysis would want to create a narrative of the process and outcome, but to many data analysts it’s not obvious at all.” Thus, decision making success
is better achieved by understanding the business problem, asking relevant questions, developing the appropriate model and then telling a story to provide context, insight, and interpretation. The MS in Business Analytics at Cal Poly is designed to create analysts with precisely this perspective.

The proposed program is a comprehensive, one year, interdisciplinary business degree program that encompasses economics, finance, accounting, marketing, and information systems. This program is unique in equipping students with the necessary quantitative tools to develop insightful models to analyze many types of data—big and not so big; structured and unstructured, as well as cross sectional, time series, and panel data. Our graduates will be highly sought after in many different types of industries including consulting, retail, financial services, marketing, healthcare, human resource management, and technology. The focus of our program on econometrics and decision theory is particularly noteworthy and offers our graduates a competitive advantage. A comprehensive treatment of econometrics (standard, financial, and Bayesian) offers the essential model-first approach as a complement to the standard data-first approach found in other programs. The focus on decision theory prepares our graduates to apply data analytics to develop sound business decisions under uncertainty. In sum, the MS in Business Analytics will offer a holistic approach to data analytics, combining qualitative reasoning with quantitative tools to identify key business problems, translate them into relevant data questions, and apply data analytics while telling a story and proposing concrete business actions. With exposure to analytics in a business setting, graduates will also be able to serve as a critical link among senior management, data scientists, and clients.

We have effectively aligned curriculum development to industry needs in this rapidly evolving field of data analytics through close industry interactions in numerous venues. Our Dean’s Advisory Council provided useful feedback and support in the earlier stages of the program development. As we progressed, we worked closely with the Coraggio Group (www.coraggiogroup.com) to assist us with market research and the early positioning of the MS in Business Analytics program. In doing so, we compared our course and program proposals to similar programs across the country. The Coraggio Group conducted an internet literature review on the trends in data analytics education and market needs, and, more importantly, interviewed university program directors and corporate leaders in the area of business analytics. In the executive summary of their report on their findings, the Coraggio Group stated that Cal Poly’s early research suggested “... unmet demand existed between the current university program offerings and the demands of industry to produce graduates” and that “… Cal Poly has a long-term opportunity to distinguish itself amongst university programs in focusing on Business Analytics.”

To assist in assuring the long-term quality and impact of the MS in Business Analytics, we formed a Business Analytics Advisory Board (BAAB). Board members include some of the nation’s top executives who are leveraging data and advanced analytics to change the game in
their respective industries. We already have an impressive representation of firms, including Brocade, Cisco, First Republic Bank, Google, Informatica, Nest, NetApp, Oracle, Safeway, Symantec, VSP Global, and Walmart. The mutually beneficial partnership not only gives board members immediate access to a new pool of business analytics graduates, but also allows them to provide input regarding the skill sets they need from new college graduates in this field. We envision three to four board meetings per year, split between San Luis Obispo and other cities in California. The first meeting, held at the Oracle campus on April 3, 2015, was stimulating and productive. For the most part, the board members endorsed our suggested curriculum but also made some useful recommendations. The second meeting is tentatively scheduled at the Google campus later in the year. It is expected that board members will provide an analytical project and the data for student teams to work on with their company.

Overall, the proposed program has received tremendous support from industry leaders. The following quotes from Jeff Henley, Harry Tannenbaum, and Joshua Knox sum up the endorsement:

"Here at Oracle, we know there is tremendous demand for new business school graduates with the ability to glean competitive insights from the massive amounts of data being generated today. In fact, one of the key findings from new research Oracle just sponsored with the Wall Street Journal is that businesses should partner with universities that offer business analytics degrees, in order to gain lower-cost access to finance talent with analytical experience. Oracle already looks to Cal Poly as a major source of new hires for its Sales Academy, based on the quality and preparation of the students coming out of the business school. An MS program in Business Analytics will only add to the appeal of Cal Poly as a go-to source of finance and business administration talent for innovative companies in the Bay Area and beyond."

Jeff Henley, Executive Vice Chairman, Oracle

"As a leader of a fast growing business analytics organization -- I was incredibly excited to get a sneak peak at Cal Poly's MS in Business Analytics program. I think the approach, which blends technical training with a holistic understanding of what it takes to drive a business is right on the mark. I will hire someone out of this program in an instant and would feel confident that they would have significant impact on our business”

Harry Tannenbaum, Head of Business Analytics, Nest Labs

"Both Google as a company, and Google Analytics as a product, have an ever-present need for tomorrow's leaders able to bridge the business and technical worlds with the necessary analytical skills to materially impact our bottom line. Cal Poly's new MS program is uniquely positioned to provide a local talent base with the skills to hit the ground running."

Joshua Knox, Engineering Program Manager, Google
Program Curriculum

### Core Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>GSB 510</td>
<td>Data Visualization and Communication in Business</td>
<td>4</td>
</tr>
<tr>
<td>GSE 518</td>
<td>Essential Statistics for Econometrics</td>
<td>4</td>
</tr>
<tr>
<td>GSE 520</td>
<td>Advanced Econometrics I (prereq: GSE 518)</td>
<td>4</td>
</tr>
<tr>
<td>GSE 524</td>
<td>Computational Methods in Economics</td>
<td>4</td>
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<td>GSB 520</td>
<td>Data Management for Business Analytics</td>
<td>4</td>
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<tr>
<td>GSB 530</td>
<td>Data Analytics and Mining for Business (prereq: GSB 520)</td>
<td>4</td>
</tr>
<tr>
<td>GSB 503</td>
<td>Collaborative Industry Projects (Approval from Associate Dean)</td>
<td>8</td>
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**Core Subtotal** 32

### Approved Electives

Select 13 units from the following:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>GSE 522</td>
<td>Advanced Econometrics II (prereq: GSE 520)</td>
<td>4</td>
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<tr>
<td>GSB 516</td>
<td>Strategic Marketing Analytics (prereq: GSE 518)</td>
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<tr>
<td>GSB 573</td>
<td>Marketing Research (prereq: GSE 518)</td>
<td>4</td>
</tr>
<tr>
<td>GSE 544</td>
<td>Evidence-Based Decision Analysis (prereq: GSE 520)</td>
<td>4</td>
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<tr>
<td>GSB 550</td>
<td>Bayesian Econometrics (prereq: GSE 520)</td>
<td>4</td>
</tr>
<tr>
<td>GSB 501</td>
<td>Individual Research (Approval from Associate Dean)</td>
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</tr>
<tr>
<td>GSB 570</td>
<td>Selected Advanced Topics (Approval from Associate Dean)</td>
<td>1-4</td>
</tr>
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</table>

**Electives Subtotal** 13

**TOTAL UNITS** 45
Culminating Experience

Students are required to take eight units of GSB 503: Collaborative Industry Projects. The purpose of this core course is to engage in an interdisciplinary project activity, leading to two or more completed projects. For each project, the Business Analytics Advisory Board and other industry partners will provide real world problems and data to be reviewed and analyzed by our students. All projects are expected to be team based, where students, working in small groups, apply tools and techniques as they are covered in the curriculum. Through this arrangement, students will also get valuable experience working effectively in a team and for a client.

The projects may be initiated in the very first quarter a student is enrolled and carried out for the remaining quarters of the program. A faculty team drawn equally from the technical and management disciplines will provide an important balance. Such a mentoring configuration will provide the students with the ability to develop within an incubator, data analytics type environment for real world data exploration, modeling, data analytics, and solution development. In addition to the technical skills, the students will be mentored on developing strong “people skills” which encompass effective teamwork, leadership, conflict resolution and negotiation, and strategy. Throughout the academic year, there will be regular workshops and seminars led by the faculty team as well as industry partners.

The final project, completed in the last quarter of the program, will provide students with the opportunity to synthesize the ideas and methods they have learned over the duration of the MS Business Analytics program, fulfilling the requirements for a culminating experience as specified in the California Code of Regulations. The expected output from this activity is a professional level written report and presentation reviewed by industry partners, key program faculty, and the student’s academic advisor. Though the projects are team based, students will be expected to make individual presentations highlighting their individual contribution towards the project and submit individual reports. These individual undertakings will form the basis of assessment of the culminating experience.

Student Learning Outcomes

Graduates of the MS in Business Analytics program will be able to:
LO 1: Employ key aspects of data management – retrieval, integration and enrichment
LO 2: Apply high ethical standard towards the collection, storage, analysis, and reporting of data
LO 3: Apply modeling tools to data of various types and sizes
LO 4: Visualize data to infer and communicate insights
LO 5: Use data to analyze, inform and solve fundamental business problems
Student Demand

There is currently a large unmet demand in the marketplace for people with data analytic skills. For example, the Bureau of Labor Statistics reports, “Companies of all sizes are expected to add enough data analysts that, as a group, the job category should grow by 45 percent through 2018, making it among the fastest-growing career choices out there.” The shortage of data analysts in the marketplace has created an obvious demand for relevant programs in the area. Several universities have either launched or are in the process of launching certificate as well as master’s programs in data analytics. Most of these programs have experienced exceptionally fast-growing enrollments. George Washington University, for instance, began offering their MBA students a certificate related to data analytics. In the first two years, the number of students in the program increased from 10 to 75; eventually resulting in the certificate program evolving into a full master’s program in Business Analytics in Fall 2013. Similarly, the MS in Business Analytics program at Arizona State University started within the last two years has a current enrollment of 90 students based on 333 applications in 2014. The Business Analytics program at the University of Connecticut has increased from 20 students in 2011 to a current enrollment of 250. The Predictive Analytics program at DePaul University, which began with 30 students in 2010, had 150 enrolled students in 2014.

In the run up to the proposed MS in Business Analytics program, we plan to launch a 4-month professional certificate program in Business Analytics in Summer 2015. An on-campus information session held in February 2015, drew 56 Cal Poly students from diverse disciplines including economics, business, engineering, computer science, and biology. The program was extremely well received when presented at the Good Morning SLO event, sponsored by the Chamber of Commerce. Despite minimal marketing, we have received 18 applications for the certificate program. With admission open until June 5, 2015, we expect the pool to increase.

Given the national trend and the right positioning, we foresee robust demand and enrollment after the initial launch of the MS in Business Analytics program in Fall 2016. The interest in the program from non-business students is consistent with other existing programs. For example, 38 percent of students in the MS in Marketing Analytics program at University of Maryland in Fall 2013 comprised of undergraduates from fields such as engineering, mathematics, computer science, and physics. With Cal Poly’s strong focus on STEM fields, the proposed program is positioned to flourish.