Meeting of the Academic Senate  
Tuesday, October 29, 2013  
UU 220, 3:10 to 5:00 pm

I. Minutes: Approval of minutes for the meeting of October 8, 2013 (pp. 2-4).

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:

V. Business Item(s):
A. Resolution on Dissolving the Academic Senate Curriculum Graduate Subcommittee: Andrew Schaffner, chair of the Curriculum Committee, second reading (pp. 5-6).

B. Resolution on Proposal for the Establishment of the Kenneth N. Edwards Western Coatings Technology Center: Ray Fernando, Chemistry & Biochemistry Department, second reading (pp. 7-15).

C. Resolution on Increasing the Number of Annual Distinguished Scholarship Awards from Two to Three: Brett Bodemer, chair of the Distinguished Scholarship Awards Committee, first reading (p. 16).

VI. Discussion Item(s):

VII. Adjournment:
I. Minutes: none.

II. Communication(s) and Announcement(s):
B. **Betsy Kinsley: Key Campus Dates for Fall Quarter** (document distributed at meeting).

III. Reports:
Presenters will be encouraged to submit written reports for inclusion in the agenda. Senators can then ask questions of the presenter at the meeting.

A. **Academic Senate Chair:** (Rein) The chair welcomed new senators to the Academic Senate. A brief Powerpoint presentation was provided to orient new senators to the Senate and explain how the Senate accomplishes its business. Specific attention was given to the parliamentary procedure documents mailed earlier to all senators, which explain how motions are made and their order of precedence according to Robert's Rules of Order. Business items are brought to the Senate in the form of a resolution. Resolutions go through a first and second reading process. Once adopted, they are sent to the President for his review and approval.

At the end of the last academic year, two matters were postponed to the beginning of the current year. The first involves general education and curriculum flexibility. Last year the Chancellor’s Office mandated that academic programs meet a 180-unit maximum (although higher unit majors could submit a request and justification for an increase in units). The Academic Senate General Education Governance Board responded that Areas D2 and D4 should be given greater flexibility so that majors could bring certain courses into one of these areas thereby allowing said courses to be double-counted.

The second issue involves the election of Dustin Stegner as Vice Chair of the Academic Senate for 2013-2014. At the time of his election to this position, the fact that he had already served a two-term limit was inadvertently overlooked. Dustin is currently serving as a replacement for senator Daniel Dove, who is on leave during fall quarter, as well as Vice Chair. A decision will be needed as to whether to allow Dustin to continue as Vice Chair for winter and spring quarters. This matter will be brought back to the Senate for a decision at a future meeting.

B. **President’s Office:** Written report submitted by Betsy Kinsley. [See Communications and Announcements above.] Questions directed to the President’s Office will be forwarded by the Chair.
C. **Provost:** (Enz Finken) Base budgets for the colleges have been restored to their 2010 levels. 35 tenure-track positions throughout the University have been approved for hire. A series of campus conversations are being held to provide information and include the campus in decision making. A series of meetings for department chairs/heads, which are open to all campus constituents, have also been scheduled as a venue for getting information out and receiving input regarding department and campus needs. The Honors Program continues to enroll students while the development of a new program is underway. Regarding the quarters-to-semesters conversion, the Chancellor has responded unequivocally that Cal Poly will NOT be required to convert by 2016. While he feels that it would be beneficial if all campuses were on the semester system, collegial governance and campus autonomy are important considerations.

D. **Vice President for Student Affairs:** (Humphrey) The Health and Counseling Center will now be open until 7:00pm on Mondays and Wednesdays. Students who are having financial difficulties can obtain food vouchers from the Dean of Students Office.

E. **Statewide Senate:** No verbal reports. [See Communications and Announcements above for summary of the last Academic Senate CSU plenary session.]

F. **CFA Campus President:** (Thomcroft) Equity II was funded for the approximately 150 eligible faculty members. CFA agreed to an $80/month increase in General Salary Increases for all faculty rather than a 1.34% salary increase offered by the Chancellor. The increase will be retroactive to July 2013 and will be received in December 2013.

G. **ASI:** (Colombini) ASI will be focusing on developing its student governance role this year. One way it will do this is through a question and answer process, which allows students to submit a question to student government and receive an answer. All questions are saved for future inquiries, so if a question has already been asked the answer will go out immediately. ASI is working on a student survey to gauge student opinion on a variety of issues. A campus vigil will be held for students who have passed away this academic year. The statewide student association, CSSA, will be discussing quarters-to-semesters and preparing a one-page response requested by the Chancellor. (Prestininzi) In the future when a student perspective is requested by the Academic Senate, it will be brought to the ASI Board of Directors for its discussion and response so that the answer represents a broader perspective than just that of the two students that sit on the Academic Senate.

IV. **Special Reports:**

**David Conn:** report on “The Great California Shakeout”: On October 17 2013 at 10:17am, the campus is encouraged to participate in a practice run of the “Drop, Cover, and Hold” preparedness exercise so individuals will automatically know what to do in the event of an earthquake. This time should also be used to discuss earthquake safety. For more information on earthquake preparedness and safety recommendations go to www.emergency.calpoly.edu and follow the links under “earthquake.”

V. **Consent Agenda:** none.

VI. **Business Item(s):**

A. **Resolution on Dissolving the Academic Senate Curriculum Graduate Subcommittee:** Schaffner, chair of the Curriculum Committee, first reading: (Schaffner) In 2011 the Curriculum Graduate Subcommittee was proposed to add more rigor to the review of graduate programs. However, having
this subcommittee in place during last year’s review slowed down the process and created much chaos. The Curriculum Committee now has direct participation from Graduate Programs through its Director of Graduate Programs who sits on the Curriculum Committee. Eliminating the subcommittee will streamline the review process.

B. Resolution on Program and Area Name Change for the Industrial Technology Program and Area of the Orfalea College of Business: Djassemi/Fisher, representatives for OCOB: This resolution has been pulled from the agenda by its representatives. It will return later this year.

C. Resolution on Proposal for the Establishment of the Kenneth N. Edwards Western Coatings Technology Center: Ray Fernando, Chemistry & BC Department, first reading: (Fernflores) The polymers area (the science of coatings) has basically been functioning as a center for 13 years. The name of the center has already been approved by the CSU even before its formal establishment on campus. (Fernando) Formalizing this area as a center enhances its relationship to industry in several ways: a larger portion of the industry will come to Cal Poly for research and coatings testing, more faculty and students will be engaged in joint research, more internships will be made available, and while funding from industry has already been generous ($3 million given to build the center on the third floor of the new Baker Science Building), even greater funding is expected. (Enz Finken) Structurally, the center needs to be in alignment with the policies for centers and institutes so the University can support it in more ways. (Jones) Professor Dane Jones thanked the Senate for its support during the 25 years since he first came to the Senate proposing a polymers/coatings program. Since then, the program has grown into one of the nation’s premier undergraduate polymers/coatings programs.

VII. Discussion Item(s): none.

VIII. Adjournment: 5:00pm

Submitted by,
Margaret Camuso
Academic Senate
RESOLUTION ON DISSOLVING THE ACADEMIC SENATE CURRICULUM GRADUATE SUBCOMMITTEE

WHEREAS, AS-724-11 (Resolution on the Establishment of a Subcommittee of the Academic Senate Curriculum Committee to Review Graduate Curricula) established a subcommittee of the Academic Senate Curriculum Committee to Review Graduate Curricula; and

WHEREAS, The anticipated benefits of having a separate level of review such as thoroughness and efficiency have not been fully realized; and

WHEREAS, Academic Senate Curriculum Committee (ASCC) membership formally includes ex officio graduate representation via the Director of Graduate Education; and

WHEREAS, Current SCC voting members historically come from departments that offer graduate programs or are faculty that have served on thesis committees; therefore be it

RESOLVED: That the Academic Senate dissolve the Graduate Subcommittee of the Academic Senate Curriculum Committee; and be it further

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

VIII. COMMITTEES

H. COMMITTEES

1. Curriculum (and its subcommittees: Curriculum Appeals Committee, Graduate Programs Subcommittee, and U.S. Cultural Pluralism Subcommittee)

I. COMMITTEE DESCRIPTIONS

2. Curriculum Committee

(a) Membership

College representatives shall be either the current chair or a current member of their college curriculum committee. The Professional Consultative Services representative shall be an academic advisor from one of the colleges. Ex officio members shall be the Provost or designee, the Dean of Research and Director of Graduate
Programs Education or designee, the Vice Provost for Information Services/Chief Information Officer or designee, a representative from the Office of the Registrar, and an ASI representative.

(b) Responsibilities

The Curriculum Committee evaluates curriculum proposals from departments and colleges before making recommendations to the Academic Senate. In addition, the committee makes recommendations to the Senate on University requirements for graduation, general education, learning objectives, and cultural pluralism; provides library oversight as it relates to curriculum; and addresses any other curriculum-related matter referred to it by the Senate, Senate Chair, or Executive Committee. The chair of the Curriculum Committee shall be responsible for coordination of curriculum review with the Office of the Registrar.

Curriculum Appeals Committee

(See AS-711-10 for description of the Curriculum Appeals Committee and curriculum proposal appeals process.)

Graduate Programs Subcommittee

There will be a standing subcommittee of the Academic Senate Curriculum Committee responsible for the review of proposals for new/revised graduate courses and programs. The Graduate Programs Subcommittee shall not be comprised of a subset of the Curriculum Committee members, but instead, the subcommittee shall include one faculty member from each college with experience in graduate level teaching and supervision, the chair of the Academic Senate Curriculum Committee (or a designee of the chair), and as an ex officio member, the Dean of Research and Graduate Programs. The Graduate Programs Subcommittee will forward recommendations regarding graduate courses and programs to the Academic Senate Curriculum Committee, which will consider them before making its recommendations to the Academic Senate.

Proposed by: Academic Senate Curriculum Committee
Date: May 30 2013
Revised: October 11, 2013
RESOLVED: That the Academic Senate of Cal Poly endorse the attached proposal for the establishment of the Kenneth N. Edwards Western Coatings Technology Center.

Proposed by: Dr. Raymond Fernando, Arthur C. Edwards
Endowed Chair, Director: Polymers and Coatings Program, Chemistry and Biochemistry Department, Cal Poly

Date: September 18, 2013
Proposal to Establish a Kenneth N. Edwards Western Coatings Technology Center
California Polytechnic State University

Submitted by: Raymond H. Fernando, Ph.D

September 18, 2013
Introduction

The Department of Chemistry and Biochemistry at California Polytechnic State University (Cal Poly) has been planning to propose the establishment of a Kenneth N. Edwards Western Coatings Technology Center (WCTC) since 2002. Cal Poly has strong faculty expertise in polymers and coatings, long-standing partnerships with industry, as well as the equipment, space, and funding to support the proposed center.

The Department of Chemistry and Biochemistry has been offering a concentration in polymers and coatings for over 20 years. In addition, since 2002, the department has offered a unique Masters program in polymers and coatings, the only such program in California. Students in the MS program work closely with faculty and industry partners to develop the specialized skills they need for careers in the polymers and coatings technology industry.

Cal Poly's coatings and polymers faculty members are highly respected both nationally and internationally. The steady growth of Cal Poly’s educational programs in polymers and coatings as well as the high caliber of applied research in polymers and coatings means that Cal Poly’s faculty members are widely recognized by industry and educational partners as leaders. Cal Poly faculty and students have been engaging in applied research and outreach activities to industry since 2002 as if they were operating from a center. At this juncture, the formal establishment of the WCTC will allow faculty experts in polymers and coatings to expand their capacity in providing the educational and applied research opportunities it offers to students and industry partners. Through the WCTC, faculty members anticipate growth in several areas, such as:

- Additional capacity to do contract research;
- Additional capacity to provide coatings testing services;
- Ability to accommodate post-doctoral requests;
- Increasing “short courses” offerings (2 week industry certificate courses) in summer and throughout the academic year; and
- Increasing opportunities for students to do applied research and gain employment in polymers and coatings

Chemistry and biochemistry faculty members with expertise in coatings and polymers have a long track record of working collaboratively with faculty in other departments and colleges. For instance, faculty members from the Department of Chemistry and Biochemistry have done polymer film and surface coatings testing work in collaboration with the Center for Coastal Marine Sciences. They have an ongoing collaboration with the Global Waste Research Institute in the area of nanomaterial waste. Additionally, they have worked with faculty members in Dairy Products Technology Center, Graphic Communication Department, Materials Engineering Department, and the Industrial Technology Department. Through the
WCTC, chemistry and biochemistry faculty members intend to increase these kinds of productive collaborative efforts.

Mission

The WCTC at Cal Poly will provide a forum for faculty, students, and industry partners to elevate and bolster educational opportunities and applied research in polymers and coatings technology. The WCTC will accomplish this mission by:

(1) Engaging faculty in teaching and research in polymers and coatings technology;
(2) Engaging students in studying and applying skills associated with polymers and coatings technology; and
(3) Engaging and developing relationships with members of industry involved in polymers and coatings technology.

The WCTC at Cal Poly will be self-supporting. Academic freedom will be practiced in all Center activities.

Funding and Facilities

Funding to support the WCTC is in place and no additional facilities are required:

• Together with industry, department members have raised 3 million dollars to support the WCTC. These funds have been used to build laboratories for polymer synthesis, coatings formulation, and instrumental analysis and a conference/student presentation room, all in the Warren J. Baker Center for Science and Mathematics. Together these facilities will serve as the operational base for the WCTC;
• Dr. Ray Fernando was hired in 2002 as Cal Poly’s first endowed chair, the Arthur C. Edwards Chair in Coatings Technology and Ecology. Over $1 million was raised to support the Arthur C. Edwards Chair, currently the only endowed chair in a California State University (CSU) chemistry department; and
• Over $200,000 in funds has been raised for equipment. For instance, the KASM Equipment Endowment has been funded to ensure that academic and research activities are conducted on high quality equipment.

Polymers and Coatings Applied Research

Cal Poly faculty in the Department of Chemistry and Biochemistry receive frequent requests from industry partners and from other Cal Poly faculty members to provide testing services of coatings on a wide range of surfaces. Testing of coatings
is required for virtually all surfaces with which we come into contact. To name just a few examples, coatings testing is necessary for cars, bridges, appliances, bicycles, surfaces on which we walk, medical tubes used to collect blood, and guide wires used in surgical procedures. Cal Poly faculty members are active in coatings research and testing in many of these areas. Additionally, faculty members have done research in the engineering of polymers and biological polymer systems.

Faculty members have worked closely with industry for over a decade to raise funds to support applied research. Some projects are:

- Development of novel urethane elastomers for medical applications
- Accelerated weathering of marble and resin compatibility through conservation of Nice Muses Roman Sarcophagus
- Development of an advanced, lightweight, mesh and polymer-based splinting system for immobilization of fractures in tactical environments
- Zero VOC preparation of polystyrene-co-methyl methacrylate using ionic solvents
- Effects of functional nanoparticles on coating performance
- Interactions of surfactants and polymeric surfactants on coating rheology
- Colorant effects on architectural coating rheology
- Polyelectrolyte and protein adsorption studies monitored via ATR/FTIR, QCM, and AFM
- Atomic force microscopy of thin films
- Membrane and surfactant biophysics
- Determination of exempt solvents by solid-phase microextraction (ASTM D6438)
- Validation of EPA Method 311 on HAP – Round Robin Testing
- ASTM VOC test method development
- Thermally responsive materials for development of insensitive munitions and self-healing coatings
- Self-Regulating, Self-Pressurizing Tubules for Integrated Circulatory Systems
- Nano-structuring of polymers
- Advanced corrosion detection methods on aluminum
- Paper based microfluidics
- Oxime ether surfactants
- Organic-inorganic hybrid nanocomposites
- Semi-conducting polymers

Learn by Doing

The establishment of the WCTC will increase applied research and educational opportunities for students. Student involvement has always been integral to applied
research in polymers and coatings at Cal Poly. The Department of Chemistry and Biochemistry has a long track record of actively seeking industry support to provide students with hands-on experiences. For instance, concerted effort was devoted to funding the Bill Moore Research Fellowship Endowment, which is currently at approximately $400,000, in order to support student research fellowships.

Students are hired regularly to do coatings testing work, which provides them not only with employment, but also with excellent field experience. Additionally, students are hired regularly to assist with contract research.

Polymers and coatings students have always been given opportunities to interact with industry partners, including presenting to the Cal Poly Polymers and Coatings Industrial Advisory Council (see section on “Governance”).

Through the WCTC, faculty members expect to offer short industry certificate courses as well as host conferences on polymers and coatings. Students may be hired to assist in the preparation and delivery of short industry certificate courses and they may participate in conferences.

The WCTC will be unique not only to the CSU, but it will also have an international presence. For instance, the establishment of the WCTC may coincide with the establishment of a new partnership with the China National Coatings Industry Association (CNCIA). The CNCIA, through American Coatings Association (ACA) has requested that Cal Poly offer a Graduate Certificate Program in Polymers and Coatings Science to industry professionals in China. Cal Poly is not currently poised to offer the Certificate Program in China. However, there are plans underway to offer lecture courses to students in China as part of a certificate program in polymers and coatings. Students from China are expected to visit Cal Poly during summer for laboratory courses that make up the rest of the certificate program. The expectation is that Cal Poly students and faculty would interact with graduate certificate candidates from China during laboratory courses offered through the WCTC. Students in the China program who wish to complete the Cal Poly MS could formally apply to do so.

**Governance**

**Director**

The WCTC Director will be the occupant of the Arthur C. Edwards Chair in Coatings Technology and Ecology, who is currently Dr. Ray Fernando.
The WCTC Director will be responsible for management and oversight of all center activities. The Director will report to CSM Dean and indirectly to the Vice President for Research and Economic Development.

The WCTC Director will seek direction and support from a standing Polymers and Coatings Industrial Advisory Council. Responsibilities of the WCTC Director may include:

- Oversee effective utilization of the WCTC facilities for the benefit of Cal Poly students and faculty, and professionals in polymers and coatings field;
- Develop and coordinate initiatives and activities of the WCTC with industry partners;
- Serve as the primary point of contact for the Polymers and Coatings Industrial Advisory Board (see below);
- Continue and grow partnerships with industry, national and international organizations, and other institutions;
- In collaboration with faculty members, develop goals and objectives for the assessment of WCTC activities;
- Actively raise funds to support WCTC activities;
- Oversee the development and offering of industry certificate courses;
- Uphold the highest principles of academic freedom;
- Collaborate with faculty and consult with industry partners to develop strategic directions for curriculum development in the polymers and coatings science;
- Collaborate with faculty and industry partners to increase learn by doing opportunities for students, including internships;
- Collaborate with faculty and industry partners in pursuing sponsored research; and
- Represent the WCTC in professional industry and educational environments.

Faculty Experts in Polymers and Coatings

Cal Poly has several faculty members in the Chemistry and Biochemistry Department with expertise in polymers and coatings, including:

- Dr. Phil Costanzo, Organic Chemistry
- Dr. Ray Fernando, Polymers and Coatings Science
- Dr. Derek Gragson, Physical Chemistry
- Dr. John Hagen, Biophysical Chemistry
- Dr. Chad Immoos, Chemistry
- Dr. Dane Jones, Physical Chemistry
- Dr. Kevin Kingsbury, Chemistry
- Dr. Alan Kiste, Chemistry and Education
Several other faculty members throughout the campus have collaborated with polymers and coatings faculty members in the Chemistry and Biochemistry Department:

- Dr. David Braun, Physics Department
- Dr. Trevor Harding, Materials Engineering Department
- Dr. Raphael Jimenez, Dairy Products Technology Center
- Dr. Xiaoying Rong, Graphic Communication Department
- Dr. Jay Singh, Industrial Technology Department
- Dr. Phil Tong, Dairy Products Technology Center
- Dr. Keith Vorst, Industrial Technology Department
- Dr. Dean Wendt, Center for Coastal Marine Sciences

Polymers and Coatings Industrial Advisory Board

The Department of Chemistry and Biochemistry has enjoyed a long and mutually beneficial relationship with a well established Polymers and Coatings Industrial Advisory Board. Together, faculty members from the department work with industry partners to develop strategies for creating and improving curricular offerings, identifying industry needs, and ensuring Cal Poly graduates are well positioned to have rewarding careers in polymers and coatings areas.

Due to the outstanding history of support the existing Polymers and Coatings Industrial Advisory Council has shown for polymers and coatings education and applied research at Cal Poly, the council will function as the industry advisory council for the WCTC as well as for the program. The council will be asked to advise the WCTC director and involved faculty members about industry needs and interests that might be met through WCTC activities.

The following is the current membership of the Polymers and Coatings Industrial Advisory Council:

- Ceriac Alexander, Senior Vice-President, Behr Process Corporation
- Jim Calkin, Vice-President, Marketing, Horn Company
- Joseph Cristiano, Director & Chairman of the Board, The MCM Group
- Steve DeVoe, President, Kelly-Moore Paint Company
- Robert Wendoll, Director of Environmental Affairs, Dunn-Edwards Corporation
• Myron Shaffer, Director, Product and Technical Service NAFTA, Bayer Material Science LLC
• Melinda K. Forbes, Sr. Accounts Manager, J.F. Shelton Company
• Thomas R. Hanna, Senior Technical Service Consultant, DuPont Titanium Technologies
• Patricia Jones, Key Accounts Manager West, DSM Coatings Resins Company
• Eunice Leung, Business Development Specialist, BYK USA, Inc.
• Jeff Norris, Product Manager, Lubrizol Corporation
• Joan Pinder, Alumni Association Board Member, Cal Poly
• Joseph Reilly, President, JCR Enterprises
• Robert Sypowicz, Technical Representative, Deft, Inc.
• Joseph Tashjian, Vice-President & General Manager, Operations, Ellis Paint Company
• Scott Van Remortel, Technical Sales Manager, Unimin Specialty Minerals
• Gary Velikanje, President, Wood Kote Products, Inc.

Assessment

As required by the California State University system, the WCTC will undergo regular and rigorous program review. The assessment of the WCTC is tied to the mission of the center. Thus, the focus of assessment will be to learn what the center accomplished and how that ties with what it set out to do. Quality, not just quantity of activities, will be reported in program review, along with performance metrics developed by faculty involved in the center. Performance metrics will be developed:

• To measure student involvement (output, e.g. how many students involved, how many student projects, and outcomes, i.e., learning objectives for center activities)
• To assess faculty activities (e.g., number of grants, workshops, conferences, contracts)
Background: The Academic Senate defines scholarship in broad terms as the scholarships of discovery, application, integration, and teaching/learning (AS-725-11). 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. This Resolution declared one annual Award with a promise of two annual Awards contingent on necessary funding; funding which came through immediately, with two faculty receiving Awards each year since its inception. The Award was administered by the Academic Senate Research and Professional Development Committee until 2005, when the Academic Senate passed AS-638-05, renaming the Award as the Distinguished Scholarship Award and renaming the committee the Distinguished Scholarship Awards Committee. The number of annual Awards remained at two.

WHEREAS, The Academic Senate of Cal Poly 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 “Distinguished Scholarship Award” (AS-638-05); and

WHEREAS, The Academic Senate resolved that “in support of the Teacher-Scholar Model, the administration work with the faculty to remove impediments and provide appropriate resources to implement the Teacher-Scholar Model” (AS-725-11); and

WHEREAS, The range, volume, and intensity of research and creative activity by Cal Poly faculty has increased since the creation of the original Award; and

WHEREAS The Provost fully supports an increase from two to three annual Awards; therefore be it

RESOLVED: That the number of annual Distinguished Scholarship Awards be increased from two to three beginning in the 2014-2015 academic year.

Proposed by: The Distinguished Scholarship Awards Committee
Date: October 8, 2013