



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

MEETING OF THE ACADEMIC SENATE
Tuesday, April 15, 2008
UU220, 3:10 to 5:00pm

- 3:10 I. Minutes:
Approval of minutes for Academic Senate meetings of March 4 and March 11, 2008 (pp. 2-5).
- II. Communication(s) and Announcement(s):
President's response to resolutions AS-663-08 Resolution on Diversity Learning Objectives; AS-664-08 Resolution on New Masters of Science Degree in Biomedical Engineering; and AS-665-08 Resolution Abolishing the Academic Senate Library Committee (pp. 6-8).
- III. Reports:
Regular reports [Please limit to 3 minutes or less]:
A. Academic Senate Chair:
B. President's Office:
C. Provost:
D. Vice President for Student Affairs:
E. Statewide Senate:
F. CFA Campus President:
G. ASI Representative:
- 3:40 Special reports: [Please limit to 5 minutes or less]:
A. **Dave Hannings: Continuous Curriculum Review Process**
B. **Kate Lancaster: Results of Sustainability Charrette**
- IV. Consent Agenda:
Curriculum proposal for CHEM 101: (p. 9).
[URL for all courses being reviewed during continuous review]:
<http://www.academicprograms.calpoly.edu/curric-andbook/Continuous%20Course%20Summaries/Continuous-Course-Sum-F08.doc>
- 4:00 V. Business Item(s):
A. **Resolution on Report to the Provost: Task Group on the Future of the Library:** Howard, chair of the Library Committee/Miller, Dean of Library Services, second reading (pp. 10-30).
B. **Resolution on Evaluation of Teaching Associates:** Foroohar, chair of Faculty Affairs Committee, second reading (p. 31).
C. **Resolution on Changes New Masters of Science Degree in Polymers and Coatings Science:** Hannings, chair of Curriculum Committee/Fernando, Director for Polymers and Coatings Program, first reading (pp. 32-36).
D. **Resolution on WU Grade:** Schaffner, chair of Instruction Committee, first reading (pp. 37-39).
- 5:00 VI. Discussion Item(s):
VII. Adjournment:

CALIFORNIA POLYTECHNIC STATE UNIVERSITY
San Luis Obispo, California 93407
ACADEMIC SENATE
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MINUTES OF
The Academic Senate
Open Forum on Budget and Budget Advocacy
Tuesday, March 4, 2008
UU 220, 3:10 to 5:00 p.m.

I. Budget and Budget Advocacy

The following presentations were made:

- a. Larry Kelley, Vice President for Administration and Finance and Bill Durgin, Provost – presentation is available at <http://www.calpoly.edu/~acadsen/Minutes/2007-2008/08-09BudgetKelley-Durgin.ppt>.
- b. Richard Saenz, CFA Campus President, and Lillian Taiz, CFA President – presentation is available at <http://www.calpoly.edu/~acadsen/Minutes/2007-2008/ALLCAMPUSMEET.ppt>.
- c. Sandra Ogren, Vice President for University Advancement – presentation is available at <http://www.calpoly.edu/~acadsen/Minutes/2007-2008/AdvocacyPresentation.ppt>.

President Baker spoke about the development of an alliance campaign to help restore the budget of the CSU system and explained the importance of our graduates to the economy of California. The principal theme of this campaign is that education is the solution, not the problem

II. Jubail University College (JUC) Project

Giberti reviewed the Academic Senate's involvement with the JUC project:

- On November 27, President Baker gave his quarterly report to the Senate. At this time, he answered a question from one of the Senators about the project. After the meeting, Giberti heard from a small number of Senators who still had questions or concerns, which he relayed to the Provost.
- On January 6, the Provost responded in message relayed to the entire Senate.
- On January 8, the Provost reported to the Executive Committee. Only one member expressed any concern.
- On the morning of February 26, Giberti received a resolution opposing the project. He advised the Executive Committee to adopt the agenda as proposed, and a motion to do so passed with one member dissenting.

Ed Sullivan, Associate Dean for the College of Engineering, reported that the work plan entails having a Cal Poly faculty member on site to work with the administrators, hire faculty, develop curriculum, help design lab experiences, equip the labs, and develop relationships with local industry.

Mohammad Noori, Dean for the College of Engineering, explained that Cal Poly should consider this an opportunity to engage in dialog and share our values and culture with others.

President Baker stated that the Provost and the Cal Poly Corporation are making sure that the rights of participants are not violated in this project. In addition, he stated that isolation from countries and cultures that do not share our values is not an effective approach.

Jim LoCascio, College of Engineering and Statewide Senator, stated that the ME Department was told that women, Jews, and homosexuals would not be welcome to participate in the program.

Manzar Foroohar, College of Liberal Arts and Statewide Senator, mentioned that there is nothing in the contract preventing women, Jews, or homosexuals from participating in the program. She also challenged project opponents to apply their standards to all countries and programs that may not live up to our standards.

Submitted by



Gladys Gregory,
Academic Senate

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

MINUTES OF
The Academic Senate
Tuesday, March 11, 2008
UU 220, 3:10 to 5:00 p.m.

- I. Minutes: The minutes of February 12 were approved as presented.
- II. Communications and Announcements: Giberti announced that President Baker has approved the Resolution on Faculty/Staff Dining Area and the Resolution on Department Status and Name Change for Women's Studies Program.
- III. Regular Reports: none.
- IV. Consent Agenda: none.
- V. Business Item(s):
 - A. Election of Chair and Vice Chair for 2008-2009: John Soares from Journalism and Steve Rein from Statistics were elected by acclamation as 2008-2009 Academic Senate Chair and Vice Chair respectively.
 - B. Resolution on Diversity Learning Objectives (Curriculum Committee): Hannings presented this resolution, which states that the Diversity Learning Objectives shall be considered an addendum to the University Learning Objectives. M/S/P to adopt the resolution.
 - C. Resolution on New Masters of Science Degree in Biomedical Engineering (Curriculum Committee): Hannings presented the resolution, which requests the approval of the proposal for a Masters of Science in Biomedical Engineering. M/S/P to adopt the resolution.
 - D. Resolution on *Report to the Provost: Task Group on the Future of the Library* (Library Committee): Miller, Library Dean, presented the resolution, which requests the Academic Senate's endorsement of the recommendations presented in the report. Wayne Howard's presentation is available at <http://www.calpoly.edu/~acadsen/Minutes/2007-2008/library%203.11.ppt>. This resolution will return as a second reading item.
 - E. Resolution Abolishing the Academic Senate Library Committee (Library Committee): Giberti presented the resolution, which requests that the Academic Senate Library Committee be abolished and that all references to the Library

Committee be removed from the *Constitution of the Faculty and Bylaws of the Academic Senate*. M/S/P to move the resolution to a second reading. M/S/P to adopt the resolution.

- F. Resolution on Evaluation of Teaching Associates (Faculty Affairs Committee): Foroohar presented the resolution, which requests the formation of an ad-hoc committee to develop a University-wide policy regarding the employment and evaluation of Teaching Associates. This resolution will return as a second reading item.

VI. Discussion Item(s): none.

The meeting was adjourned at 5:00 p.m.

Submitted by



Gladys Gregory
Academic Senate

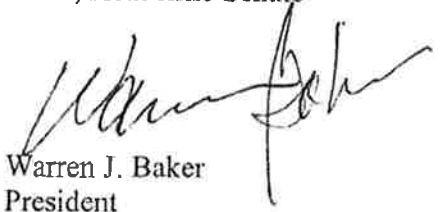
CAL POLY

SAN LUIS OBISPO
CA 93407

State of California
Memorandum

To: Bruno Giberti
Chair, Academic Senate

Date: March 24, 2008

From: 
Warren J. Baker
President

Copies: W. Durgin
D. Conn

Subject: Response to Academic Senate Resolution AS-663-08
Resolution on Diversity Learning Objectives

Based on consultation with Provost William W. Durgin, this memo acknowledges receipt and approval of the above-entitled resolution, which includes the Diversity Learning Objectives (final revision date of February 21, 2008).

Please extend my appreciation to members of the Curriculum Committee for their efforts in developing this first set of campus diversity learning objectives. Cal Poly has long been committed to increasing diversity on our campus and the Diversity Learning Objectives further demonstrate this commitment.

This is a wonderful step forward, and I am grateful to the Academic Senate for its good work.

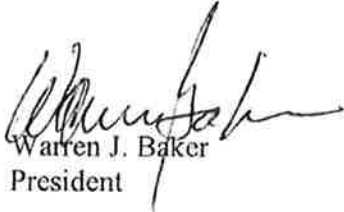
CAL POLY

SAN LUIS OBISPO
CA 93407

State of California
Memorandum

To: Bruno Giberti
Chair, Academic Senate

Date: March 25, 2008

From: 
Warren J. Baker
President

Copies: W. Durgin
M. Noori
D. Walsh
S. Opava
D. Conn
M. Whiteford

Subject: Response to Academic Senate Resolution AS-664-08
Resolution on New Masters of Science Degree in Biomedical Engineering

I am pleased to approve the above-entitled resolution. The proposal will now be sent to the Chancellor's office for approval.

Please express my appreciation to the Academic Senate members for their attention to this important curricular matter.


CAL POLY

SAN LUIS OBISPO
CA 93407

State of California
Memorandum

To: Bruno Giberti
Chair, Academic Senate

Date: March 25, 2008

From: 
Warren J. Baker
President

Copies: W. Durgin

Subject: Response to Academic Senate Resolution AS-665-08
Resolution Abolishing the Academic Senate Library Committee

I acknowledge receipt of the above-entitled Academic Senate Resolution and agree that elimination of the Library Committee is in order.

Fall Quarter 2008

Continuous Course Review

Note: The following courses have been summarized by staff in the Academic Programs Office for review by the Academic Senate Curriculum Committee (ASCC). *Unless otherwise noted, the ASCC recommends approval of the following courses to the Academic Senate.*

Date Prepared: March 13, 2008

NEW COURSES

Course Number, Title	(Total Units) Mode	CS #	Other
CHEM 101 Introduction to the Chemical Sciences	(1) 1 lecture	02	CR/NC grading

Adopted:

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

AS-__-08

**RESOLUTION ON
*REPORT TO THE PROVOST: TASK GROUP ON THE FUTURE OF THE LIBRARY***

- 1 RESOLVED: That the Academic Senate endorse the recommendations presented in the attached
2 *Report to the Provost: Task Group on the Future of the Library* (summary of
3 recommendations provided on page 2 of the report).

Proposed by: Academic Senate Library Committee
Date: October 31, 2007

CAL POLY

REPORT TO THE PROVOST

Task Group on the Future of the Library

October 2007

Task Force Membership:

Joseph Grimes, Director, Center for Teaching & Learning

Linda Halisky, Dean, College of Liberal Arts (**Co-Chair**)

Wayne Howard, Chair, Department of Agribusiness, College of Agriculture,
Food and Environmental Sciences & Chair, Academic Senate
Committee on Library Services

Timothy Kearns, Vice President & Chief Information Officer

Franz Kurfess, College of Engineering

Michael D. Miller, Dean of Library Services (**Co-Chair**)

Roxy Peck, Associate Dean, College of Science and Mathematics

George Petersen, College of Education

Jay Singh, Orfalea College of Business

Christopher Yip, College of Architecture and Environmental Design

Also participating:

Navjit Brar, Coordinator, Reference and Instructional Services,
Kennedy Library

Johanna Brown, Department Head, Collection Management,
Kennedy Library

Helen Chu, Director, Library Information Technology, Kennedy Library

Trey Duffy, Director, Disability Resource Center

Nancy Loe, Department Head, Special Collections & University Archives,
Kennedy Library

William Sydnor, Academic Advisor, Academic Skills Center

Staff Support:

Lynda Alamo, Administrative Analyst, Kennedy Library

Sallie Harlan, College Librarian, Kennedy Library

Task Group on the Future of the Library

EXECUTIVE SUMMARY

The Provost's task group met Spring Quarter 2007 to examine the role of the library in support of the academic mission of Cal Poly. The areas of study and related recommendations are:

The Library as Place: In the 30 years since the Kennedy Library was built, instructional methods and library services have experienced profound changes. The library needs to be an active space that meets a multitude of academic and social needs.

- Recommendations: Renovate and expand the library as a multi-use, social and academic center of campus.

Collections: The collections budget has doubled over the past 25 years but hyperinflation in academic publishing resulted in two-thirds fewer books purchased and half as many journals. Licenses to electronic journals are often more expensive than print to purchase and maintain. Similar digital subscriptions at academic libraries increase the institutional value and prestige of the unique archival materials, faculty scholarship, and student work held in Special Collections.

- Recommendations: Provide seamless access to digital resources while continuing to support legacy collections; develop an institutional repository for faculty and student scholarship and other digital assets; work with CSU and Cal Poly colleges to better fund collections.

Services: Traditional library services such as reference and course reserves will continue to be transformed by technology. Co-locating other student services within the library creates a synergy that delivers information, learning academic skills, and opportunities to students.

- Recommendations: Enhance library services through better use of technology and a scholar-centric approach that adds value to the academic process; explore collaboration with partner groups to better support student success and faculty excellence.

Technology: For many users and uses, the library is a virtual space on the Web. The library can facilitate use of technology in day-to-day teaching, and encourage collaboration and social networking in support of learning.

- Recommendations: Selectively adopt emerging technologies to better serve faculty and students. Recruit and train library faculty and staff with superior technology skills to increase innovation.

Personnel: The library has lost half of its faculty positions in the last 25 years and one-third of its staff positions. Cal Poly ranks near the bottom of the CSU in ratio of students to librarians. At the same time, technology has increased the roles and responsibilities of library faculty and staff.

- Recommendations: Increase the number of librarians to one per 1,000 students; add limited number of staff and increase funds for professional development.

Budget: The library budget has had a net loss of more than half a million dollars in the last five years and is not as well supported as competitors such as Western Washington, Texas State-San Marcos or Virginia Tech.

- Recommendations: Make library fundraising for collections, services, and facilities a primary goal for University Advancement; tie growth of graduate programs to funding for library collections and services; secure stable funding sources for recurring expenses such as database licenses.

Task Group on the Future of the Library

Charge

In Provost William Durgin's memorandum of February 22, 2007 he instructed the *Task Group on the Future of the Library* to

“...examine the role of the library in support of the academic mission of Cal Poly. Specifically, I would like you to make recommendations about how the library should position itself to best support teaching, learning, and research in an increasingly networked, mobile, and pervasively technological academic environment. What do faculty need from the library to support their teaching and research? What do students need to support their learning and discovery in and beyond the classroom? What resources and facilities are needed in an expansion of the current building? How can we employ emerging technologies in support of learning? Who are the right campus partners to share library space?”

Drawing from current literature about library collections, services and buildings, the experience at other institutions, and your own unique knowledge of the needs of Cal Poly, I request that you formulate recommendations to create a new vision for the library that aligns itself with the evolving changes to the University's programs and mission.”

The Task Group of ten faculty and additional campus resource people met six times during the Spring Quarter 2007 to examine the collections, services, technology, and building requirements of the Robert E. Kennedy Library. Each meeting was structured around a thematic issue. The Task Group discussed library budget and personnel issues, the transformation of library collections, the evolution of services, the impact of technology and the changing expectations of students, and ideas for an improved learning environment in the library building.

The charts, spreadsheets and articles from those sessions are either included in this report or listed in the bibliography. Discussions were wide-ranging and informative. The six thematic meetings were followed by a three-hour retreat to formulate recommendations concerning the future of the library. This report is a synthesis of what was learned and a statement of recommendations for further consideration.

Task Group on the Future of the Library

Library as Place

The existing Kennedy Library was designed in the 70's and completed in 1980. It is in many ways a building with great potential for the campus, but a building that time has passed by. It was built before computing was commonplace and before access to digital collections was seriously considered. In acknowledgement, the campus has begun an important new process to redesign, renovate and expand the existing library building. Architects have been retained and the program phase of this lengthy process is underway. The Program Plan is to be completed by November 2007, in time for submission to the Chancellor's Office for review. Optimistically construction may be completed by 2013.

The redesign process holds great promise for the future of the Kennedy Library. It comes at a time when basic assumptions about academic libraries, their collections, services, and role on the campus, are being seriously reconsidered. It provides an opportunity to adapt the library program as expressed in its building to the changes in technology, faculty need, and student expectations. Perhaps more than any other topic, the Task Group was eager to share their views and their hopes for an improved Kennedy building.

Better utilization of building space is more possible now than in any time in the past because of the shift to digital collections. Less paper storage means repurposing portions of the library to create learning spaces. The changes in the library program and the building are mutually supportive.

The Task Group faculty were clear that the library should hold a special position on the campus. As the largest academic building and as the intellectual heart of the campus, it should be a showcase. It should create a sense of awe not just for parents and visitors, but also to inspire the generations of students and faculty who will use it every day. Faculty spoke of a "vaulted light-filled space" and a large formal quiet reading room for serious study. It is these core spaces that set the tone and therefore need to be appealing aesthetically and generate an intellectual energy and a shared reverence for learning.

The Task Group also explored the idea of the library's role in supporting a learning environment based on Cal Poly's "learn-by-doing" philosophy. Faculty were clear that a modern library needed to be an active place that would support student discovery by adding spaces that could engage students outside of the classroom in meaningful ways. New facilities such as a gallery for scientific displays and art exhibits, quality presentation space for guest speakers, meeting rooms for student groups and faculty committees, a 24hour study room, and media production studios to support student work for an increasingly visually literate community were recommended. By offering these types of special spaces, the library can act as a campus crossroads, allowing students from different disciplines to mix, discuss shared interests, and work collaboratively.

A variety of environments were considered essential to foster information seeking, teaching, learning, recreation, and contemplation. Simple things like comfortable seating, outdoor spaces, lounge areas, access to the wireless network, and reducing the number of carrels in the building came forward as ways to foster learning. Meeting the large and growing need for group project rooms with whiteboards, display technology, easy access

Task Group on the Future of the Library

to power, and flexible furniture design was especially important to support the many study groups from all colleges.

Very much in keeping with the idea of the library as a place central to academic life is the need for social space. Rather than being a “gimmick” to get people in the door, access to food and coffee help to create an ambiance that is basic to human nature. In a place where scholars gather it provides the opportunity for student-faculty interaction and informal discussion and collaboration. People are more productive if they have access to refreshment while working.

A reconsideration of library space also provides the opportunity to think anew about which partner groups are most appropriate in an active learning environment. It allows investigation into how related units could maximize space for similar purposes and what proximities would strengthen these relationships.

Building Recommendations:

1. *Rethink library space as a “21st century union”, an active place to make the most effective use of information, to study, to learn - alone or with others.*
2. *Establish the library as a campus centerpiece and the hub of an active program to spark discovery and support the many facets of learning.*
3. *Explore the library’s role in a “learn-by-doing” environment by adding resources such as a gallery, a presentation room, media production studios, meeting spaces, and reception space.*
4. *As pressures to store paper collections eases, re-purpose library space to create flexible learning places for individual work, group projects, and collaboration.*
5. *Create a large formal study room to inspire and support serious individual study and reflection.*
6. *Acknowledge the importance of academic socialization and social gathering. Coffee and food services can provide the gathering point for such activities.*
7. *Incorporate outdoor spaces as an extension of the learning program and in harmony with the surrounding campus.*
8. *Create a 24-hour, safe study environment.*
9. *Gather partner groups in proximities that are mutually supportive and easy for students and faculty to find.*

Task Group on the Future of the Library

Collections

Since 1983 the library's collection budget has doubled. But on an annual basis, the library acquires only one-third the number of books and only half as many print journals as it did in 1983. Decades of double-digit inflation in the publishing industry have drastically eroded the library's buying power. Significant, however, is that this same period saw the rise of the Internet, the development of the Web, and the birth of electronic journals. Digital publishing has transformed the distribution of journal literature, especially in the sciences and engineering.

Kennedy Library Information Resources Expenditures							
Fiscal Year	Books Added (volumes)	Expenditures for Print Books	Print Periodical Subscriptions	Expenditures for Print Subscriptions	Electronic Periodical Subscriptions	Expenditures for Electronic Subscriptions	*Total Library Materials Expenditures
2006-							
2007	6,025	\$230,632	3,063	\$336,136	10,499	\$913,251	\$1,663,026
2005-							
2006	5,832	\$255,938	3,082	\$588,402	4,207	\$941,752	\$1,851,371
2003-							
2004	4,295	\$160,497	2,904	\$712,074		\$544,663	\$1,419,417
1993-							
1994	6,720	\$374,572	3,841	\$896,459			\$1,344,893
1983-							
1984	15,990	\$386,193	5,547	\$493,679			\$985,586

*End of fiscal year expenditures may reflect delays due to processing in Chancellor's Office.

The cost of a license or subscription to scientific literature is high, with increases of 200-700% not unusual during the last 25 years (see chart below). It is not unusual for an individual journal title to be several thousand dollars, or for a science index or database to cost tens- or even hundreds-of-thousands of dollars to acquire. In the sciences and engineering, roughly 80% of journals are accessible electronically. This access has totally changed how faculty and students in these disciplines do their research. By contrast, the availability of humanities journals in electronic form might optimistically be 40%; but it is growing, and the titles are generally cheaper than those for the sciences and engineering.

Task Group on the Future of the Library

	Avg Cost/ Periodical 1984	Avg Cost/ Periodical 1994	Avg Cost/ Periodical 2004	1984-2004 % Increase	Avg Cost/ Periodical 2006	1984-2006 % Increase
Agriculture	\$24	\$57	\$134	458%	\$149	521%
Business & Economics	\$39	\$88	\$196	403%	\$218	459%
Chemistry & Physics	\$229	\$678	\$1,765	671%	\$2,045	793%
Education	\$34	\$75	\$175	415%	\$203	497%
Engineering	\$79	\$196	\$510	546%	\$593	651%
Fine & Applied Arts (includes Architecture)	\$27	\$45	\$69	156%	\$76	181%
History	\$24	\$45	\$85	254%	\$94	292%
Journalism & Communications	\$39	\$80	\$150	285%	\$169	333%
Literature & Language	\$23	\$40	\$76	230%	\$88	283%
Math, Botany, Geology, General Science	\$107	\$272	\$704	558%	\$789	637%
Political Science	\$32	\$71	\$176	450%	\$205	541%
Psychology	\$70	\$172	\$455	550%	\$539	670%
Kennedy Library Collections Budget	\$985,586	\$1,706,094	\$1,419,417	44%	\$1,851,371	88%

Sources: Bowker Annual and CSU Annual Library Statistics

The increase in the library's collection budget over the last 25 years has been used almost entirely to address the new and growing demand for electronic journals, indexes, and reference resources. Through local and CSU consortial licensing, the library is now able to offer the campus access to more than **29,000 titles** in digital form. It is also important to note that these rich information resources are not available through Google or from free web sites. Licensed digital access means that the campus community does not need to physically come to the library to use these materials. Digital resources are available 24/7 from the convenience of home, student residence, lab, or office.

With expanded access, the use of electronic resources by the Cal Poly community has grown dramatically over the last decade. As more and more electronic resources became available and as more students embraced network and mobile technologies, use of online resources has grown exponentially.

In an effort to make limited resources go further, the library has actively cancelled paper subscriptions to titles when electronic versions exist. In this way the campus does not pay twice for the same title. Other cost saving measures include discontinuing microform subscriptions and the binding of paper journals when electronic versions exist. While access to paper subscriptions has decreased, overall the campus has gained much broader access to journal and index literature through the adoption of electronic licensing.

Task Group on the Future of the Library

The number of monographic titles acquired annually at Cal Poly is down significantly from 25 years ago, reflecting cost increases of 50-200% (see chart below). Monographic purchasing has also declined to compensate for the huge increases in the cost of journals. The library's existing book collection has aged to the point where many of the titles do not constructively support the curriculum, and the library is weeding the collections in order to make room for newer titles.

Comparison of Average Costs for Academic Books by Discipline				
	1984	1994	2004	1984-2004 % increase
Agriculture	\$35	\$57	\$68	94%
Business & Economics	\$26	\$49	\$70	169%
Education	\$21	\$38	\$46	119%
Engineering & Technology	\$42	\$78	\$100	138%
Fine & Applied Arts (includes Architecture)	\$30	\$43	\$48	60%
History	\$26	\$34	\$43	65%
Literature & Language	\$22	\$28	\$33	50%
Math & Computer Science	\$28	\$56	\$75	168%
Physics	\$44	\$86	\$100	127%
Political Science	\$25	\$38	\$56	124%
Psychology	\$28	\$37	\$47	68%
Science	\$32	\$70	\$96	200%
Kennedy Library Collections Budget	\$985,586	\$1,706,094	\$1,419,417	44%

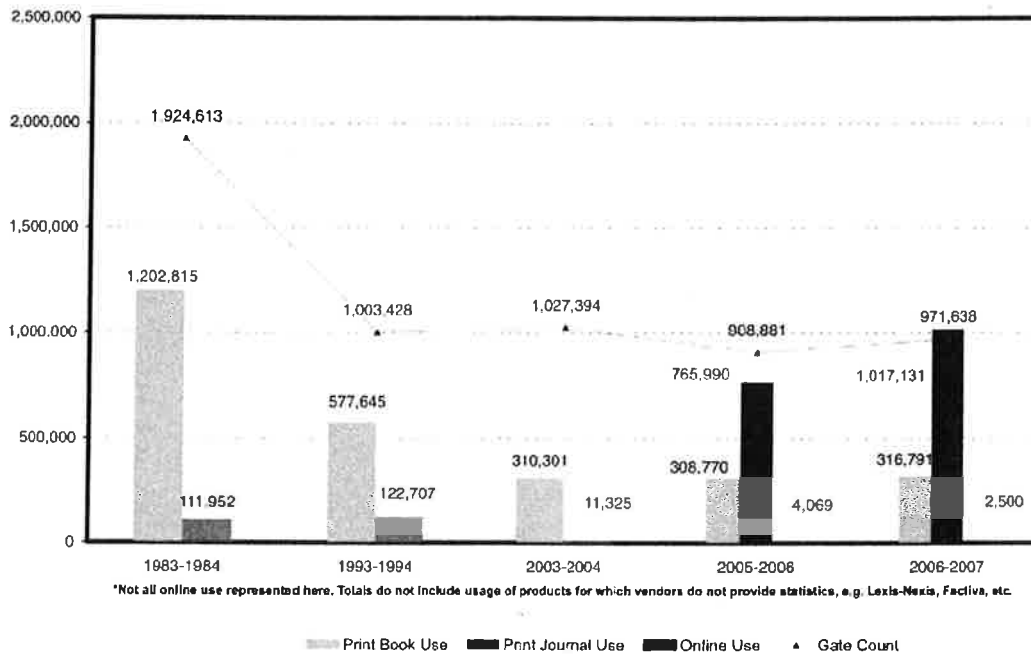
Sources: Bowker Annual and CSU Annual Library Statistics

Use of library book collections has dropped dramatically across the country and the same is true at Cal Poly. However, by becoming more selective in acquiring new monographic titles, the Robert E. Kennedy Library has been fairly successful in reaching borrowers. Approximately 52% of new books circulate in their first year.

To date digital publishing has had only a very minor impact on book publishing. More than 1,500 ebooks are available from the library but this is a technology that has not matured and there is not yet a ready acceptance on the part of students and faculty. This will undoubtedly happen, but it awaits improvements to technology and an economic model that is as easy to use and inexpensive as iTunes. Use of electronic indexes, databases, and journals has grown much more quickly.

Task Group on the Future of the Library

Kennedy Library Gate Count and Resource Use



With the transition toward digital resources, the unique holdings of the library's Special Collections/University Archives unit take on a new significance. The ability of students to use primary research materials and base projects around access to these materials becomes a very special learning opportunity. Current collections are strong in the papers, photographs and drawings of notable California architects such as Julia Morgan, William F. Cody, and Charles Butner; landscape architects such as Arthur Barton; artisans such as Edward G. Trinkkeller, and architectural historians such as Sara Holmes Boutelle and Mario Corbett. Special Collections also has local history collections that not only document noteworthy people and events of the Central Coast, but also dovetail with the university's curriculum, including environmental history and ethnic studies. Most of these holdings remain unprocessed and therefore unavailable for use due to lack of staffing. Holdings of and access to the University Archives remains modest for the same reason. This is an area that deserves support for acquisition, preservation, and scanning to improve access for classroom discovery and individual research.

Collection Recommendations:

1. Continue the transition toward digital resources, being cognizant of preferences by discipline. Use College Librarians to ensure consultation with faculty.
2. Do everything possible to make the library's resources easy to find and use.
3. Make acquisition of primary research materials, faculty and student authorship, and university documents an important and growing part of the library's collections. Provide broad access through the institutional repository.
4. Leverage resources across CSU libraries to enhance access to a broader selection of titles and to negotiate advantageous licensing agreements.

Task Group on the Future of the Library

5. *Explore a funding model that encourages colleges to contribute ongoing funds to support their discipline specific information resources.*
6. *Build an endowment to supplement campus funding of collections.*

Services

The Kennedy Library today offers a variety of both traditional and innovative services to the Cal Poly campus. The servicing of the legacy collections still accounts for a fair amount of staff effort. Increasingly staff effort is attempting to migrate the delivery of both information resources and library services to students through the campus information technology infrastructure or individual mobile devices.

Old Service	New Service
Reference Desk	Virtual Reference, AskNow
Reserves	eReserves in Blackboard
Subject Librarians	College Librarians
Library Instruction	Information Literacy

One of the most basic and most appreciated library services is reference. Students or faculty can ask anything from simple navigational issues to complex or esoteric research questions. While reference has traditionally been a physical place, increasingly it is a virtual service. Librarians have been fielding questions for years via email. More recently Cal Poly joined a world-wide consortium of libraries to offer real-time reference assistance over the Web called "AskNow." Librarians from multiple campuses schedule coverage of a "virtual" reference desk available to students for long hours of the day. A librarian from Cal Poly might be helping a student from Fresno in the afternoon but a librarian from Pomona might help a Cal Poly student later that evening. This collaboration makes reference available from literally anywhere. To further expand this type of reference access for students, Kennedy librarians will be testing an IM, or instant messaging, version of the AskNow service in the near future.

Another traditional library service is Course Reserves, a service that allows faculty to make available to students books, articles, personal papers, or any other type of information needed to support instruction. Over the last several years this service has transformed almost entirely into eReserves thereby making these same faculty readings available anytime, anywhere through library Web pages. This year, in cooperation with ITS, eReserves resources will appear directly inside relevant faculty folders in Blackboard, making access more convenient for students.

Also worth noting, several Task Group faculty commented that when they were in graduate school requests through their library's inter-library loan service would typically take weeks or months. The Kennedy Inter-Library Loan service typically provides materials within 5-7 days with articles often being delivered directly from a Web site. Considering the limited size of existing Cal Poly collections, this is a very important service.

Task Group on the Future of the Library

Kennedy librarians have made the transition from reference librarians tethered to desks in the library to College Librarians. This is more than just a name change. While librarians retain their subject focus, the College Librarian model sets expectations for librarians to maximize time spent with faculty and students, particularly in the offices, studios and labs of their college. Library instruction too has changed from an emphasis on “how to find” a book or article to developing information seeking strategies within a discipline that can be the basis for life-long learning. There is also a growing collaboration between College Librarians and the Center for Teaching and Learning (CTL). One full-time library staff member is located in CTL to support faculty. Lessons learned there are shared within the library to improve understanding of faculty pedagogy.

The library’s recent effort to establish an institutional repository at Cal Poly is a good example of creating a service that provides value to scholars. By gathering together the scholarly work of faculty and students, the library can encourage broader communication among the colleges, stimulate higher quality student work, and share the quality of Cal Poly’s intellectual efforts with the world.

Many of the services and resources that today’s students expect are harder to provide because of limited staffing and the lack of resources necessary to develop technical expertise and infrastructure. Kennedy Librarians have produced several online tutorials and a range of specialized Web pages but have yet to expand into social networking applications such as wikis or Facebook. Because student habits have changed so radically, it is incumbent upon librarians to communicate in ways that will reach them.

With so many changes to the library’s services and collections there is a renewed need to develop better communication with the campus. Indeed with much of the collection becoming digital, they become invisible to our community. The fact that people can connect to information resources through Google only because the library has licensed the material to begin with and then provided the technical information to Google is lost in their perception of the library. The library needs to devote some staff to outreach and public relations in order that the campus can make more effective use of its resources.

In order to cope with the loss of staffing over the years, the Kennedy Library eliminated a variety of staffing points, including the Learning Resources and Curriculum center, the Media Resources center, and the Government Documents and Maps center. The collections from these centers remain available to the campus, although reduced in size, and the specialized assistance previously offered has been downsized and absorbed into the library’s general reference service. These program reductions have helped to transition the Kennedy Library toward a more digital future. While the loss of staff has been a limiting factor, the changes have forced the reconsideration of many traditional service models. The move from a collection-centric view of the library to a more service-oriented model provides value to the campus by supporting the unique applied teaching-learning model central to Cal Poly’s identity and curriculum.

Task Group on the Future of the Library

Part of changing the campus perception of the library's service model has been to invite into the library building a number of partner groups who also work directly with faculty and students.

Kennedy Library Partner Groups

- Information Technology Services (ITS)
- Center for Teaching and Learning (CTL)
- Research Scholars in Residence
- Honors Program
- Academic Skills Center (ASC)
- Peace Corps

By bringing together student and faculty service providers, the library creates a synergy among units and the expectation that the Kennedy Library is the place to go to support learning and discovery, improve skills, and explore new academic opportunities. Thought is currently being given to whether additional units should join this partnership and what are the appropriate criteria for inclusion.

Service Recommendations:

1. *Emphasize library services that are most vital for student success including information literacy, support of mobile technology, new forms of scholarship, emerging forms of publication, and social networking.*
2. *Expand the transition from traditional library services to a more scholar-centric approach that seeks to provide value to the academic process.*
3. *Adapt library services to millennial student learning paradigms.*
4. *Develop a public relations program to more effectively communicate with the Cal Poly community.*
5. *Provide increased support to students and faculty by exploring linkages among partner groups and the library to better support student success. Bring student and faculty service units together in an expanded library building.*

Technology

The most significant change for academic libraries over the last 25 years is the expanded role of technology in every aspect of its operations. Starting with the nearly invisible but essential functions of acquisitions and cataloging, library automation efforts expanded to include circulation and reserve functions and eventually replaced the card catalog. The online public catalog (OPAC) became the fastest, most comprehensive way to find materials in the library. Large library management systems of this type are called Integrated Library Systems (ILS) and they are now essential for managing and accessing the library's million plus holdings. The ILS represents substantial costs that over time have been integrated into the library's budget. With the development of the Internet and the World Wide Web, the library's Web pages became the true "front door" to the library. The Kennedy Library homepage had more than 354,152 unique visitors and more than 21,116,371 hits last year.

Task Group on the Future of the Library

The Task Group spent a good deal of time learning about millennial student characteristics, their behaviors and expectations. Students view computers and mobile phones as an extension of themselves and a normal part of their environment. They do not really think of these devices as “technology” but they expect digital resources and services to just “be there.” Students are widely and constantly “connected.”

The Task Group used the EDUCAUSE 2007 edition of the *Horizon Report* to learn about emerging technology trends in higher education. The report discusses in some detail six trends that will have significant impact on college and university campuses in the next five years. They include:

- User-created Content
- Virtual Worlds
- Social Networking
- New Scholarship & Emerging Forms of Publication
- Mobile Phones
- Massively Multiplayer Educational Gaming

All institutions and libraries are challenged to address these trends. The Kennedy Library will be introducing student-contributed content through a library wiki site and is currently experimenting with an instant messaging (IM) system to communicate reference information directly to student cell phones. The library is supporting emerging forms of publication through the introduction of its institutional repository project and through the production of online teaching tutorials.

Clearly, from a student’s perspective, technology will be at the core of how they expect to be productive. Future library support of scholarship will therefore increasingly be driven by student demand for technology and the expectation that all of the University’s programs and services will make intelligent use of its potential. Much of the library’s past efforts have tried to create the best possible information environment and then teach students how to use it. Future efforts will instead need to address where to place library resources and services intuitively into virtual “student space.”

Currently the Library Information Technology (LIT) group manages the library’s ILS and OPAC, 13,000 Web pages, 25 servers, two instructional classrooms, approximately 150 staff and student workstations, and the Learning Commons, with a total technical staff of 6.5 FTE. It is a lean operation that now needs to be at the forefront of all library services and resources. LIT is essential to the library’s future aspirations and its efforts need to be interwoven through all facets of library operations.

Technology Recommendations:

1. *Ensure that library initiatives facilitate faculty instructional efforts to incorporate technology in day-to-day work.*
2. *Implement collaboration and social networking technologies in support of learning.*
3. *Track emerging trends on a regular basis and adapt program to best serve faculty and students.*

Task Group on the Future of the Library

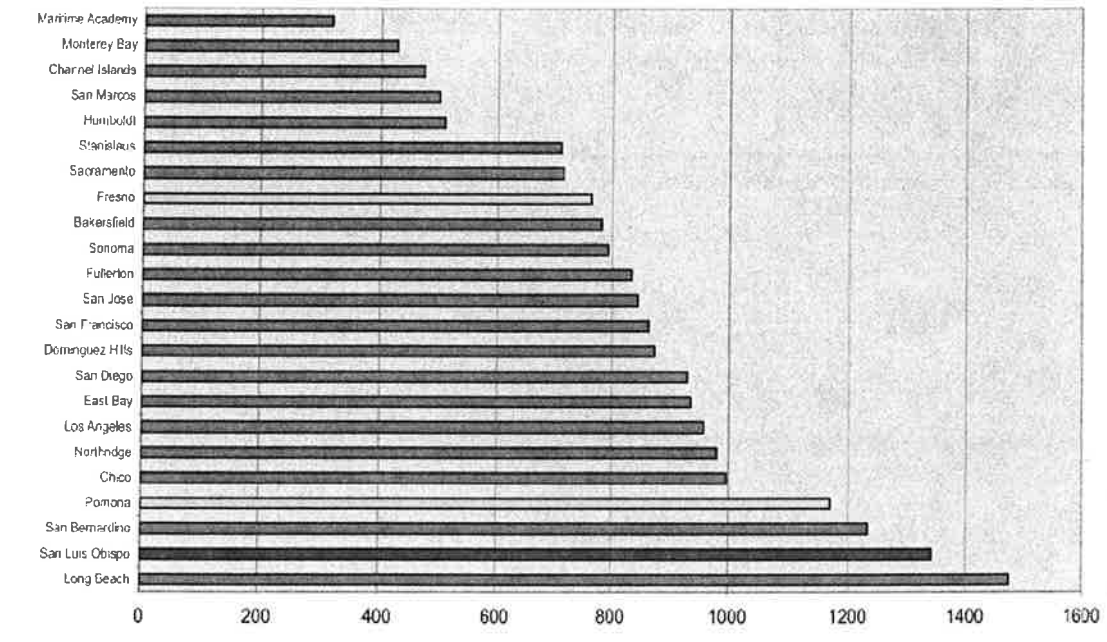
4. *Hire the best technically trained and experienced librarians and Library Information Technology staff. Train to maintain and add skills.*
5. *Continue to build a true partnership with ITS to provide coordinated technology services to the campus.*
6. *Adapt the library's budget to the reality of technology's ongoing costs.*

Personnel

Twenty-five years ago the Kennedy Library had a staff of 71 including 26 library faculty. In 2006, total staffing in Kennedy was less than 50 with only 13 librarians. This dramatic decline in staffing has hampered the library's ability to transform itself and adapt to the many technological innovations that have taken place. Staff has been able to service the legacy collections and maintain services at an acceptable level, but they are stretched to add more online resources, access to computing and computer-based services.

The current level of staffing at the Kennedy Library does not compare well with the rest of the CSU and puts Cal Poly almost at the bottom in rankings of "Students per Librarian"; only CSU Long Beach has a lower ratio. Compared to campuses of similar size, Cal Poly has one librarian for every 1,350 students; Pomona has one librarian per 1,150 students; Fresno has one librarian per 750 students.

Students per Librarian, 2005-06



Task Group on the Future of the Library

As we have gone from the traditional book library to an emerging digital library the demands on library faculty and staff have changed significantly. Consider the following chart that was shared with the Task Group:

Changing Roles of Librarians

Changes in "Top Five Job Activities" in Terms of Time Spent 1991-2001

Job Name	% Change
Face-to-face Reference	-12
E-mail Reference	+21
Print Collection Development	-5
E-collection Development	+24
Online Searching	+19
Mediated online Searching	-19
Library Instruction	-15
Information Literacy Instruction	+15
Design Instructional Handouts	-14
Design Web Pages	+19
Attend meetings	-14
Supervise	+14

Based on data from Cardina, Christen, and Donald Wicks, *The Changing Roles of Academic Reference Librarians Over a Ten-Year Period*, Reference & User Services Quarterly, Vol.44, No.2 Winter 2004.

The chart above represents an overall increase of 33% in the workload of librarians and is only a partial picture. Librarians who were hired with the skills to service the traditional library model continue to support the legacy collections and services, and at the same time have taken on new roles including at least some of the following:

- Licensing
- Negotiating
- Rights management
- Scanning operations managers
- Technical troubleshooters
- Software & web developers
- Web designers
- Usability testers
- Information architects
- Public Relations
- Assessment specialists
- Scholarly publishers
- Policy advocates
- Rich Media Producers

With fewer library faculty already stretched to adapt to the changing academy, it is difficult to acquire the new skills needed to grow the library's program in support of today's students or the more sophisticated needs of faculty. The library needs some additional resources to raise technical proficiency among its faculty.

Task Group on the Future of the Library

The role of staff has changed considerably too. What were once considered purely clerical positions are now totally dependent on multiple technologies for the completion of most daily tasks. In recognition of these changes, the California Public Employment Relations Board (PERB) recently granted the move of the entire Library Services Specialists series into Bargaining Unit 9 (Technical/Professional).

The staffing picture at the Kennedy Library has begun to improve. In the past year the Provost has approved new funding for two librarians, a staff position, and .5 FTE advancement position. The need for a dramatic increase in staffing is not anticipated in the future. Migration from older legacy processes to digital collections and services will gradually free up some staff to support new initiatives. Some additional "transitional" staffing would be welcome in the interim as the library attempts to add specialized skills. Overall use of staff is expected to change from stewardship of physical collections to facilitation of scholarship through expanded digital services. An increase in the number of College Librarians would also be appropriate. Right now there is only one librarian assigned per college, ignoring the current reality of student population size or the number of faculty served, or the complexity of specific college curricula.

Personnel Recommendations:

1. *Gradually increase the number of librarians to one per 1,000 students.*
2. *Add three staff positions to facilitate current efforts for student engagement and access to digital resources. Re-evaluate specialized staffing needs following the building renovation.*
3. *Increase the level of funding for professional development for library faculty and staff by 20%.*

Budget

The existing Robert E. Kennedy Library building was completed in 1980 and has had no significant renovation or upgrade in the intervening years. Yet during that time the world of learning and information has undergone a radical transformation. The IBM personal computer (PC) was introduced in 1981, the Web first gained attention in 1993, and in 2004 Google announced its intention to digitize over 10 million volumes from the holdings of major research libraries. Each of these milestones has had a significant impact on campus learning environments and libraries. As the library looks ahead to a major renovation and expansion of the existing building, it seems fitting to use an examination of the intervening 25+ years as a means of comparing what has been happening in the library.

In 1983 the library was funded solely by the State at a level of \$3.4M. In 2007, the State portion of the library budget was \$5.4M. Additional funding from the Cal Poly Plan and the State Lottery brought the total library budget up to \$6.3M. This compares reasonably well to other CSU campuses of similar size (more than Pomona, less than Fresno) but is surpassed by competitors such as Texas State-San Marcos at \$9.9M or Virginia Tech at \$12.5M. It is important to note that from FY2002-03 to FY2006-07 the Kennedy Library's overall budget had a **net decline of \$561,453.**

Task Group on the Future of the Library

National Center for Education Statistics

Data from Academic Libraries Survey Fiscal Year: 2004 (most recent year)

Sorted by enrollment

Library Name	Total FTE 12 month Enrollment	Total Library Expenditures	Total Library Expenditures Per Person Enrolled (FTE)	Librarians	Librarians Per 1,000 Enrolled (FTE)	All Other Paid Staff	Gate Count in a Typical Week	Hours Open in a Typical Week
WESTERN WASHINGTON	13,111	\$4,836,059	\$368.86	18	1.45	43	28,482	96
CSU-POMONA	16,443	\$4,015,995	\$244.24	14	0.83	37	24,943	79
CSU-SAN LUIS OBISPO	16,893	\$4,497,430	\$266.23	12	0.71	41	32,288	109
CSU-FRESNO	17,488	\$6,679,789	\$381.96	24	1.5	47	14,569	91
TEXAS STATE, SAN MARCOS	22,466	\$7,849,696	\$349.40	27	1.47	53	25,639	105
VIRGINIA TECH	25,804	\$11,686,981	\$452.91	36	4.88	90	28,782	97

Overall budget support determines the level at which the library can serve the Cal Poly community. At current funding levels the Robert E. Kennedy Library can do a reasonably good job of supporting the traditional undergraduate instructional program. Our collections are broad, our services are the ones that faculty generally expect to find, and our provision of technology is adequate.

But in the last 25 years Cal Poly has grown from a campus of 14,099 to 19,312 students. The use of technology has become deep and pervasive and has changed in significant ways the business of the academy. There is now an expectation that Cal Poly will grow its graduate programs and that support of faculty research is an important part of the teacher-scholar model. The library's current budget is inadequate to respond to these or other new challenges in the years ahead.

Budget Recommendations:

1. *Increase library advancement efforts in collaboration with the University Advancement Office. Make the library a major fundraising goal in the upcoming capital campaign.*
2. *Tie growth of the University's graduate program to increases in the library's budget to support those programs. Consider making an analysis of the library's available information resources and services a required part of new academic program development.*
3. *Grow funding of Library Services to match the mission and aspirations of the University.*

Conclusion

From the earliest days of the university, the library has been viewed as an important resource to support teaching and research. Despite the vast changes to the academy, the library remains an essential resource for supporting student success and faculty research. Pushed by changes in technology and student expectations, the model of the academic library is changing very rapidly. The Robert E. Kennedy Library is in a good position to navigate this transition. The opportunity to renovate and expand the library building is an excellent way to refocus campus thinking about what it needs most from Library Services. There is a compelling need – and opportunity – to match the Kennedy Library's services, collections, and technology to the mission and aspirations of Cal Poly.

Bibliography

- “About SEIR.” Systemwide Electronic Information Resources. 2006. California State University. 2 July 2007 <<http://seir.calstate.edu/about/index.shtml>>.
- “Academic Center and Library Vision Document.” Academic Center and Library Building Project. 2007. Robert E. Kennedy Lib., California Polytechnic State U. 10 July 2007 <http://www.lib.calpoly.edu/about/acal/acal_vision_and_scope.pdf>.
- Brady, Eileen E., Sarah K. McCord, and Betty Galbraith. “Print versus Electronic Journal Use in Three Sci/Tech Disciplines: The Cultural Shift in Process.” College & Research Libraries 67.4 (2006): 354-363. American Library Association. 25 Sept. 2007 <<http://www.ala.org/ala/acrl/acrlpubs/crljournal/backissues2006a/julycrl/brady06.pdf>>.
- Brown, John Seely. “New Learning Environments for the 21st Century.” John Seely Brown. 2005. 2 July 2007 <<http://www.johnseelybrown.com/newlearning.pdf>>.
- Campbell, Jerry D. “Changing a Cultural Icon: The Academic Library as a Virtual Destination.” Educause Review 41.1 (2006): 16+. Educause. 2 July 2007 <<http://www.educause.edu/ir/library/pdf/erm0610.pdf>>.
- Cardina, Christen, and Donald Wicks. “The Changing Roles of Academic Reference Librarians Over a Ten-Year Period.” Reference and User Services Quarterly 44.2 (2004): 133-142. Academic Search Elite. EBSCO. Robert E. Kennedy Lib., San Luis Obispo, CA. 26 Sept. 2007 <<http://search.ebscohost.com/login.aspx?direct=true&db=afh&AN=16263062&site=ehost-live>>.
- “Changing Roles of Academic and Research Libraries.” American Library Association. 18 Apr. 2007. 10 July 2007 <<http://www.ala.org/ala/acrl/acrlissues/future/changingroles.htm>>.
- Cochrane, Lynn Scott. “If the Academic Library Ceased to Exist, Would We Have to Invent It?” Educause Review 42.1 (2007): 6-7. Educause. 2 July 2007 <<http://www.educause.edu/ir/library/pdf/erm0714.pdf>>.
- Council of Library Directors. “2005 CSU Libraries Strategic Plan: Advancing Together: 21st Century Strategies for the CSU Libraries.” California State University Systemwide Library Services. Sept. 2005. 10 July 2007 <http://www.calstate.edu/LS/strategic_plan06.pdf>.

Bibliography (con.)

- “CSU Annual Library Statistics 2005-2006.” California State University Systemwide Library Services. 2006. 10 July 2007 <<http://www.calstate.edu/LS/LibStatsRpt05-06rev2.pdf>>.
- Freeman, Geoffrey T. “The Library as Place: Changes in Learning Patterns, Collections, Technology, and Use.” Library as Place: Rethinking Roles, Rethinking Space. Washington, DC: Council on Library and Information Resources, 2005. Council on Library and Information Resources. 29 June 2007 <<http://www.clir.org/pubs/reports/pub129/freeman.html>>.
- Horizon Report. 2007. New Media Consortium. 2 July 2007 <http://www.nmc.org/pdf/2007_Horizon_Report.pdf>.
- “Information Competency Literacy Standards for Higher Education.” American Library Association. 2000. 2 July 2007 <<http://www.ala.org/ala/acrl/acrlstandards/standards.pdf>>.
- Lewis, David W. “A Model for Academic Libraries 2005 to 2025.” Visions of Change Symposium, California State University, Sacramento, 26 Jan. 2007. IDEA: IUPUI Digital Archive. 10 July 2007 <<https://idea.iupui.edu/dspace/handle/1805/665>>.
- Lippincott, Joan K. “Net Generation Students and Libraries.” Educating the Net Generation. Ed. Diana Oblinger and James Oblinger. Boulder, CO: Educause, 2005. Educause. 2 July 2007 <<http://www.educause.edu/ir/library/pdf/pub7101m.pdf>>.
- Lorenzo, George, Diana Oblinger, and Charles Dziuban. “How Choice, Co-Creation and Culture Are Changing What It Means to Be Net Savvy.” ELI Paper 4. Oct. 2006. Educause. 2 July 2007 <<http://www.educause.edu/ir/library/pdf/ELI3008.pdf>>.
- Lougee, Wendy Pradt. “Diffuse Libraries: Emergent Roles for the Research Library in the Digital Age.” CLIR Reports. 2002. Council on Library and Information Resources. 2 July 2007 <<http://www.clir.org/pubs/reports/pub108/pub108.pdf>>.
- Oblinger, Diana, and James Oblinger. “Is It Age or IT?: First Steps Toward Understanding the Net Generation.” Educating the Net Generation. Ed. Diana Oblinger and James Oblinger. Boulder, CO: Educause, 2005. Educause. 2 July 2007 <<http://www.educause.edu/ir/library/pdf/pub7101b.pdf>>.
- Perceptions of Libraries and Information Resources. Dublin, Ohio: OCLC, 2005. OCLC. 2 July 2007 <<http://www.oclc.org/reports/2005perceptions.htm>>.

Bibliography (con.)

- Prensky, Marc. "Digital Natives, Digital Immigrants." On the Horizon 9.5 (2001): 1-6. MarcPrensky.com. 2 July 2007 <<http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf>>.
- Prensky, Marc. "Digital Natives, Digital Immigrants, Part II: Do They Really *Think* Differently?" On the Horizon 9.6 (2001): 1-9. MarcPrensky.com. 2 July 2007 <<http://www.marcprensky.com/writing/Prensky%20-20Digital%20Natives,%20Digital%20Immigrants%20-%20Part2.pdf>>.
- Robert E. Kennedy Library. "Digital Commons @ Cal Poly: Creating a Digital Destination for Your Scholarly Work." 2007.
- Robert E. Kennedy Library. "LIBQUAL+ Survey 2005: A Summary Report." 20 Feb. 2006.
- Robert E. Kennedy Library. "Library Priorities for February through December 2007." 13 Feb. 2007.
- Robert E. Kennedy Library. "Organizational Chart." 20 Mar. 2007.
- Robert E. Kennedy Library. "Robert E. Kennedy Library Strategic Plan, 2005-2010: Creating New Educational Horizons: Building the New Teaching and Learning Environment." Robert E. Kennedy Library, Cal Poly San Luis Obispo. 8 Feb. 2005. 10 July 2007 <<http://www.lib.calpoly.edu/departments/admin/strategicplan.pdf>>.
- Sandler, Mark. "Collection Development in the Age Day of Google." Library Resources & Technical Services 50.4 (2006): 239-243. Academic Search Elite. EBSCO. Robert E. Kennedy Lib., San Luis Obispo, CA. 26 Sept. 2007. <<http://search.ebscohost.com/login.aspx?direct=true&db=afh&AN=22421812&site=ehost-live>>.
- Student Campus Computing Committee. "Collaborative Learning Environments." Cal Poly Student Campus Computing Committee. 17 Oct. 2006. California Polytechnic State U. 24 Aug. 2007 <<http://www.sc3.calpoly.edu/documents/documents.html>>.
- Swan, Alma. "Open Access and the Progress of Science." American Scientist 95.3 (2007): 198-200. Key Perspectives. 25 Sept. 2007 <http://www.keyperspectives.co.uk/openaccessarchive/Journalpublications/American_Scientist_article.pdf>.

Adopted:

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

AS-__-08

**RESOLUTION ON EVALUATION OF
TEACHING ASSOCIATES**

- 1 WHEREAS, Gaining teaching experience is an important part of many graduate programs; and
2
3 WHEREAS, Teaching appointments are an important means of financial support for graduate
4 students; and
5
6 WHEREAS, The teaching skills of graduate student employees affect the quality of teaching and
7 learning in the classes they teach; and
8
9 WHEREAS, Cal Poly has not developed a policy regarding training, supervision, and evaluation
10 of Teaching Associates; i.e., graduate students who teach; and
11
12 WHEREAS, Some colleges may not have developed policies and criteria for employment and
13 evaluation of their Teaching Associates; therefore be it
14
15 RESOLVED: That the Academic Senate of Cal Poly recommend the formation of an ad hoc
16 committee of Unit 11 representatives, faculty involved with graduate programs,
17 and appropriate administrators to develop a University-wide policy regarding
18 employment and evaluation of Teaching Associates; and be it further
19
20 RESOLVED: That the Academic Senate urge that these policies reflect both the CSU
21 classification and qualification standards for hiring students and appropriate
22 collective bargaining agreements governing Teaching Associates.

Proposed by: Academic Senate Faculty Affairs Committee
Date: November 2, 2007
Revised: February 21, 2008

Adopted:

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

AS-__-08

**RESOLUTION ON
NEW MASTERS OF SCIENCE DEGREE IN
POLYMERS AND COATINGS SCIENCE**

- 1 WHEREAS, The Chemistry and Biochemistry Department is proposing the implementation of a
2 Masters of Science in Polymers and Coatings Science; and
3
4 WHEREAS, The Masters of Science in Polymers and Coatings Science has been a successful
5 pilot program for the past six years; and
6
7 WHEREAS, The Chemistry and Biochemistry Department now proposes to convert this
8 program to permanent status; and
9
10 WHEREAS, The existing specialization and BS degree in Polymers and Coatings Chemistry is a
11 nationally recognized program strongly supported by industry; and
12
13 WHEREAS, The Academic Senate Curriculum committee has carefully considered this proposal
14 and recommends its approval; and
15
16 WHEREAS, A summary of the proposal is attached to this resolution with the full proposal
17 available in the Academic Senate office; therefore be it
18
19 RESOLVED: That the Academic Senate of Cal Poly approve the proposal for a Masters of
20 Science in Polymers and Coatings Science and that the proposal be sent to the
21 Chancellor's Office for final approval.

Proposed by: Academic Senate Curriculum Committee
Date: March 11, 2008
Revised: April 1, 2008

Cal Poly, San Luis Obispo

Summary Statement of Proposed New Degree Program for Academic Senate

March 11, 2008

1. **Title of proposed program:** MS in Polymers and Coatings Science
2. **Reason for proposing the program:** Nearly twenty years ago the Chemistry and Biochemistry Department embarked on an effort to develop a unique, high quality undergraduate concentration in Polymers and Coatings Chemistry. Through a cooperative effort with industry, this program has become recognized as one of the truly outstanding undergraduate programs in polymer chemistry in the nation, and one of only a handful of undergraduate programs that offers specialized training in the applications of polymers to modern coatings.

Through continued cooperative efforts with industry, a pilot MS in Polymers and Coatings Science was launched in 2002 and it will complete its sixth year at the end of current academic year. The program offers students a unique, focused educational opportunity closely tied to industry. Students gain academic preparation in polymers and coatings science through lecture and laboratory courses and then are expected to undertake a rigorous industrial internship or industry sponsored research. Students are prepared for challenging careers in the polymers and coatings industry, and upon graduation they are highly sought after by companies operating in the field. The program also provides excellent background for doctoral studies in areas related to polymer and coatings science. This program is unique in California; there is no other similar academic program in the western US.

3. **Anticipated student demand:**

	Number of Students		
	<u>at initiation</u>	<u>3 years after initiation</u>	<u>5 years after initiation</u>
Number of Majors	9	12	30
Number of Graduates	5	6	15

Indicate briefly what these projections are based upon: So far, the program has produced thirteen graduates, and five more are scheduled to be graduated by the end of current academic year. Enrollment will be limited for the next three-year period while the new Science Center building and the privately funded Kenneth N. Edwards Western Coatings Technology Center will be built.

4. **Indicate the kind of resource assessment used in developing the program proposal. If additional resources will be required, the summary should indicate the extent of department and/or college commitment(s) to allocate them:** Resources in terms of faculty, equipment, library facilities, internships and research funding, and building facilities all have been addressed. No additional resources beyond what is already available and what has already been planned are needed.
5. **If the program is occupational or professional, briefly summarize evidence of need for graduates with this specific educational background:** The global polymer and coating industry represents hundreds of billions of dollars worth products and services spanning house paints, plastic products, electronics, biomedical devices, personal care items, and so on. Within these industries, there is a high demand for graduates having an education background in the multi-disciplinary field of polymers and coatings along with a strong background in chemistry. Graduates with this combined education are rare in California and the rest of the US. Our program faculty alone receives many inquiries about graduating students by potential employers having staffing difficulties. Those who have graduated so far and decided to enter the workforce have secured significantly better compensation packages than did their counterparts having generalized degrees.
6. **If the new program is currently a concentration or specialization, include a brief rationale for conversion:** This proposal is to convert the existing MS in Polymers and Coatings Science from pilot to permanent status. An undergraduate concentration in Polymers and Coatings is available for Chemistry and Biochemistry majors, and it will be continued.
7. **If the new program is not commonly offered as a bachelor's or master's degree, provide a compelling rationale explaining how the proposed subject area constitutes a coherent, integrated degree major which has potential value for students. If the new program does not appear to conform to the CSU Board of Trustee policy calling for "broadly based program," provide rationale:** not applicable.
8. **Briefly describe how the new program fits with the department/college/ university strategic plans:** The key elements of the program (i.e. course work and culminating experience) are well aligned with the strategic plans of the department, college, and university. The program maintains a "learn by doing" atmosphere and promotes application of theory. The program's cross-disciplinary curriculum produces graduates who are better prepared to adapt to multi-disciplinary working environments that are becoming more commonplace.

Curriculum for Polymers and Coatings Science MS Degree

	Project Plan	Thesis Plan
CHEM 544 Polymer Physical Chemistry and Analysis	3	3
CHEM 547 Polymer Characterization and Analysis Laboratory	2	2
CHEM 545 Polymer Synthesis and Mechanisms	3	3
CHEM 548 Polymer Synthesis Laboratory	2	2
CHEM 550 Coatings Formulation Principles	3	3
CHEM 551 Coatings Formulation Laboratory	2	2
CHEM 590 Graduate Seminar (1)(1)(1)	3	3
CHEM 598 Graduate Project (3)(3)(3)	9	--
CHEM 599 Graduate Thesis (3)(3)(3)	--	9
Electives from 400- and 500- level courses*	18	18
	45	45

*At least 3 units must be 500-level

Elective courses (18 units)

Examples of Elective Courses	Units	Prerequisite
CHEM 405 Advanced Physical Chemistry	3	CHEM 353
CHEM 420 Advanced Organic Chemistry	2	CHEM 212/312 or CHEM 216/316
CHEM 439 Instrumental Analysis	5	CHEM 231/331, CHEM 354
CHEM 441 Bioinformatics Applications	4	One course in college biology (BIO 111 or BIO 161 recommended)
CHEM 446 Surface Chemistry of Materials	2	CHEM 305 or CHEM 351 or course in engineering thermodynamics
CHEM 458 Instrumental Organic Qualitative Analysis	3	CHEM 319
CHEM 470 Selected Advanced Topics	1-4	CHEM 305 or CHEM 351 or CHEM 217/317
CHEM 471 Selected Advanced Laboratory	1-4	Consent of instructor
CHEM 500 Special Problems for Graduate Students	1-3	Graduate standing and consent of Department Chair
STAT 512 Statistical Methods or STAT 513 Applied Experimental Design and Regression Models	4	For STAT 512, graduate standing and intermediate algebra or equivalent; for STAT 513, one of the following: STAT 512, STAT 217, STAT 218, STAT 221, STAT 252, Stat 312, or equivalent
MATE/BMED 530 Biomaterials	4	BIO 213, ENGR 213, MATE 210 and graduate standing or consent of instructor

MATE 560 Thin Film Processing	3	Graduate standing or consent of instructor
BMED 450 Contemporary Issues in Biomedical Engineering or BMED 455 Bioengineering Design I or IME 556 Technological Project Management	4	For BMED 450, senior standing in BMED major or instructor consent; for BMED 455, ME 341, BMED 410 or consent of instructor; for IME 556, graduate standing or consent of instructor

Adopted:

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

AS-__-08

RESOLUTION ON WU GRADE

- 1 WHEREAS, AS449-95/IC *Resolution on 'U' Grades* established a policy to allow students to
2 change a '[W]U' grade to a 'W' one time in their academic career; and
3
4 WHEREAS, AS449-95IC recognized that registration is a student responsibility, and that
5 students enrolling but failing to attend class are potentially preventing other
6 students from enrolling; and
7
8 WHEREAS, Prior to 1995, registration information was not readily accessible to students
9 online, thus making procedural errors more likely; and
10
11 WHEREAS, Students currently can easily view their schedules at any time using the My Cal
12 Poly portal; and
13
14 WHEREAS, Many faculty members are unaware or unclear of policies regarding the WU grade;
15 and
16
17 WHEREAS, Inconsistent use of the WU grade leads to differing treatment of students across
18 campus; and
19
20 WHEREAS, Historically faculty members were reminded of grading policies each quarter in the
21 form of an attachment to paper grade sheets; be it therefore
22
23 RESOLVED: That AS-449-95/IC be repealed; and
24
25 RESOLVED: That the grading policies, including detailed definitions of all grading symbols
26 used, be disseminated quarterly to all faculty members prior to grade entry and that
27 the grade definitions be made easily available for reference during grade entry; and
28 be it further
29
30 RESOLVED: That these changes be implemented beginning Fall 2008.

Proposed by: Academic Senate Instruction Committee

Date: January 17, 2008

Revised: March 27, 2008

Background Material

Executive Order 792

EO 792 defines the WU Grade as follows:

WU (Withdrawal Unauthorized). The symbol 'WU' shall be used where a student, who is enrolled on the census date, does not officially withdraw from a course but fails to complete it. Its most common use is in those instances where a student has not completed sufficient course assignments or participated in sufficient course activity to make it possible, in the opinion of the instructor, to report satisfactory or unsatisfactory completion of the class by use of the letter grade (A - F). The instructor shall report the last known date of attendance by the student. The symbol "WU" shall be identified as a failing grade in the transcript legend and shall be counted as units attempted but not passed in computing the grade point average. In courses which are graded Credit/No Credit or in cases where the student has elected Credit/No Credit evaluation, use of the symbol "WU" is inappropriate and "NC" shall be used instead, The following statement shall appear in the campus catalog:

The symbol "WU" indicates that an enrolled student did not withdraw from the course and also failed to complete course requirements. It is used when, in the opinion of the instructor, completed assignments or course activities or both were insufficient to make normal evaluation of academic performance possible. For purposes of grade point average and progress point computation this symbol is equivalent to an "F."

If local campus policy prescribes other instances where this symbol may be used, the foregoing statement shall be extended to cover such instances.

The full text of EO 792 is available online at: <http://www.calstate.edu/EO/EO-792.pdf>. Note that the above does not mandate the use of the WU grade, but rather prescribes its intended use.

Some comments related to WU use at Cal Poly

- Some students who have attended a portion of a course, submitted assignments, and are earning a failing grade are being advised by campus personnel to request that faculty members issue or change failing grades to WU so that the grade can be later changed to a W. This results in giving some students an extra course of "grade forgiveness" above and beyond the 16-unit, one-time-per-course policy allowed by AS-645-06.
- Since 2002 there have been over 4000 WU grades assigned. The vast majority of these grades are coming from seven departments suggesting that students are not being treated equitably across the campus.
- Cal Poly has both regular and emergency withdrawal processes for students who need to withdraw from a class for serious and compelling reasons.

AS449-95/IC

Adopted: November 28, 1995.

**ACADEMIC SENATE
OF
CALIFORNIA POLYTECHNIC STATE UNIVERSITY
San Luis Obispo, California**

**AS-449-95/IC
RESOLUTION ON
"U" GRADES**

- WHEREAS, Executive Order 268 specifies that "The symbol 'W' indicates that the student was permitted to drop the course after the (day/week) of instruction with the approval of the instructor and appropriate campus officials. It carries no connotation of quality of student performance and is not used in calculating grade point average or progress points"; and
- WHEREAS, Executive Order 268 specifies that the grade of "U" is used "when, in the opinion of the instructor, completed assignments or course activities or both were insufficient to make normal evaluation of academic performance possible. For purposes of grade point average and progress point computation this symbol is equivalent to an "F"; and
- WHEREAS, It is recognized that registration is a student responsibility, and that students enrolling but failing to attend class are potentially preventing other students from utilizing campus resources; and
- WHEREAS, In some cases, the "U" grade may represent an unduly harsh performance grade consequence for a procedural error; therefore, be it
- RESOLVED: That students may request a grade change from "U" to "W"; and, be it further
- RESOLVED: That students may receive only one such grade change from "U" to "W" during their academic career at Cal Poly; and, be it further
- RESOLVED: That such student-initiated grade changes will be governed by the policy set out in AS-384-92 (Resolution on Change of Grade) adopted April 14, 1992.

Proposed by the Academic Senate
Instruction Committee
May 11, 1995