



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

**MEETING OF THE ACADEMIC SENATE**  
**Tuesday, February 12, 2008**  
**UU220, 3:10 to 5:00pm**

- 3:10 I. Minutes:  
**Approval of minutes for Academic Senate meeting of January 22, 2008 (pp. 2-3).**
- II. Communication(s) and Announcement(s):
- III. Reports:  
Regular reports [*Please limit to 3 minutes or less*]:
- A. Academic Senate Chair:
  - B. President's Office:
  - C. Provost:
  - D. Vice President for Student Affairs:
  - E. Statewide Senate:
  - F. CFA Campus President:
  - G. ASI Representative:
- Special reports:  
**Sandra Ogren: update on Advancement programs.**
- IV. Consent Agenda:
- 4:00 V. Business Item(s):
- A. **Resolution on Department Status and Name Change for Women's Studies Program:** Halisky, Dean for CLA/Armstrong, Director for Women's Studies, second reading (pp. 4-22).
  - B. **Resolution on Diversity Learning Objectives:** Hannings, chair of Curriculum Committee, first reading (pp. 23-27).
  - C. **Resolution on New Masters of Science Degree in Biomedical Engineering:** Hannings, chair of Curriculum Committee, first reading (pp. 28-34.)
- VI. Discussion Item(s):
- 5:00 VII. Adjournment:

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**San Luis Obispo, California 93407**  
**ACADEMIC SENATE**  
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**MINUTES OF**  
**The Academic Senate**  
**Tuesday, January 22, 2008**  
**UU 220, 3:10 to 5:00 p.m.**

- I. Minutes: The minutes of November 13 and November 27 were approved as presented.
- II. Communications and Announcements:
  - A. Giberti announced President Baker has acknowledged receipt of Resolution on Prior Learning Assessment: *Proposal to Expand Cal Poly's Credit for Prior College-Level Learning* and Resolution on Searches for Academic Campus Administrators. The President approved resolution on Proposal for the Establishment of the Center for Coastal Marine Sciences (CCMS).  
Applications for 2008-2010 Academic Senate and University committees are available at <http://www.calpoly.edu/~acadsen/CommitteeNominations/CommNomDocs.htm>; deadline is Friday, February 22.
  - B. Margot McDonald, Architecture Department, reported on the UC/CSU/CCC Sustainability Conference 2008, which Cal Poly will host. Information is available at [www.sustainability.calpoly.edu](http://www.sustainability.calpoly.edu). Kate Lancaster, chair of the Academic Senate Sustainability Committee, announced Cal Poly's sustainability charrette scheduled for Saturday, February 23, 2008, from 8:30-4:00 pm.
- III. Regular Reports:
  - A. Academic Senate Chair: Giberti reported on the calendar for Winter Quarter Academic Senate and Executive committee meetings.
  - B. President's Office: none.
  - C. Vice President for Student Affairs: Morton reported on Executive Order 1006, which states that all acts of academic dishonesty be reported to the Office of Students Rights and Responsibilities. This process allows students to be held accountable for multiple that may occur in different departments.
  - D. Statewide Senate: Foroohar reported on resolutions passed by the ASCSU, which address issues such as drops and withdrawals, campus and university autonomy, academic freedom, and fees for MBAs.
  - E. CFA Campus President: Saenz announced the start of the assistant professor equity program.
  - F. ASI Representative: Souza reported on the progress of the Rec Center expansion proposal. Information is available at [www.recexpansion.com](http://www.recexpansion.com).

IV. Special Report:

- A. Provost Durgin reported on the University's Strategic Plan. The presentation is available at <http://www.calpoly.edu/~acadsen/reports/University%20Strategic%20Plan%20Update01.2.08.ppt>.

V. Consent Agenda: none.

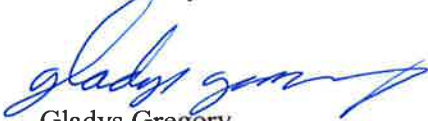
VI. Business Item(s):

- A. Resolution on Faculty/Staff Dining Area (Ad Hoc Committee on Conference Center and Faculty Club): Harris presented this resolution, which requests that the management of Campus Dining address in its strategic plan the needs of faculty and staff and that the Director of Campus Dining report to the Academic Senate on the status of this request. M/S/P to adopt the resolution.
- B. Resolution on Department Status and Name Change for Women's Studies Program (Women's Studies Program and College of Liberal Arts): Armstrong presented this resolution, which endorses the name and status change to Department of Women's and Gender Studies. Resolution will return as a second reading item at the next Academic Senate meeting.
- C. Resolution on Diversity Learning Objectives (Curriculum Committee): Hannings presented this resolution, which asks that the Diversity Learning Objectives be considered as an addendum to the University Learning Objectives. Resolution will return as a first reading item at the next Academic Senate meeting.

VII Discussion Item(s): none.

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

Submitted by



Gladys Gregory  
Academic Senate

Adopted:

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

**AS-\_\_-07**

**RESOLUTION ON DEPARTMENT STATUS  
AND NAME CHANGE FOR WOMEN'S STUDIES PROGRAM**

- 1 WHEREAS, The Women's Studies program is presently an academic unit located in the  
2 College of Liberal Arts; and  
3  
4 WHEREAS, A change in status and name from Women's Studies program to "Department of  
5 Women's and Gender Studies" is being proposed; and  
6  
7 WHEREAS, The functional modifications in changing to department status are provided in the  
8 attachment to this resolution; and  
9  
10 WHEREAS, Said change in status and name has been approved by the College of Liberal Arts  
11 Chairs Council and the Academic Deans Council; therefore be it  
12  
13 RESOLVED: That the Academic Senate of Cal Poly endorse the change in status and name  
14 from Women's Studies program to **Department of Women's and Gender**  
15 **Studies.**

Proposed by: Cal Poly Women's Studies Program and the  
College of Liberal Arts

Date: October 9, 2007

**To:** William Durgin, Provost and Associate Vice-President  
Dean's Council

**From:** Mary A. Armstrong, Director of Women's Studies  
Women's Studies Faculty Board (See Appendix A: WS Faculty Board)

**Re:** Departmental Status for Women's and Gender Studies

**Date:** October 4, 2007

Section I: Proposal and Rationale

This is a proposal to change the institutional status of Women's Studies from program to department and amend the name "Women's Studies" to "Women's and Gender Studies." The proposal is predicated mainly on the following factors, each of which is addressed in detail in Section II:

1. **Structurally and institutionally, Women's Studies already currently operates as an independent, departmental-level entity.**
2. **Women's Studies serves hundreds of students and many university programs every AY** by offering a broad spectrum of General Education and USCP courses and multiple major/minor support courses, engaging the multi-disciplinary talents of faculty as instructors and affiliates, and serving a growing core of Women's Studies Minors.
3. **Departmental status will allow Women's Studies to hire its own faculty** without being entirely relegated (as is the case now) to jointly-appointed faculty whose principle affiliations are always fractured and partially located elsewhere.
4. **Departmental status will enable Women's Studies to formulate pedagogical and scholarly principles through the development of RPT standards and processes.** Departmental status will hence promote the excellence of Women's Studies and facilitate coherent long-term planning and program assessment.
5. **Departmental status will empower Women's Studies to more effectively advance the mission of the university, fostering diversity, promoting interdisciplinary work and providing critical support in STEM areas.** Women's Studies has a unique and central role in Cal Poly's mission. It is singularly positioned to positively address issues of diversity in the curriculum, campus climate, interdisciplinary teaching and learning, and the intersection of gender issues with STEM areas.

This proposal does not entail any curricular changes. It does not require a reallocation of resources within the College of Liberal Arts or the reassignment of any current faculty. Changes will be internal to the College of Liberal Arts. This proposal does not advocate the formation of a Women's Studies major at this time. Modifications will be: a change in the title of "Women's Studies Program" to "Women's and Gender Studies Department" and a change in the title of the head of Women's Studies from "director" to "chair."

## II. Factors Related to Departmental Status

### **1. Structurally and institutionally, Women's Studies already operates as an independent, departmental-level entity.**

Women's Studies is a free-standing entity within the College of the Liberal Arts and operates with department-level autonomy. Women's Studies is self-governed by its teaching faculty and has a faculty Director; the Director of Women's Studies has a permanent seat on the College of Liberal Arts Chairs Council where Women's Studies carries a full departmental vote. Women's Studies has its own operating, programming, and discretionary budgets. It is housed within its own office space, which is staffed by the Women's Studies Administrative Support Coordinator (ASC-I) and student assistants.

The program independently schedules and runs its own courses under the Women's Studies prefix (WS) throughout the academic year; summer courses are offered, as well. Women's Studies develops and maintains its own curriculum packages and is responsible for tracking enrollments and maintaining appropriate SCU counts. Women's Studies works with College of Liberal Arts Advancement on support initiatives and represents itself on grant applications. The program shares joint tenure-track lines across the college and internally hires its own lecturers. Unlike most other minor programs—such as the minor in Dance (located within the Theatre and Dance Department) or the minor in Religious Studies (located within the Philosophy Department)—Women's Studies is structurally autonomous.

### **2. Women's Studies serves hundreds of students and many university programs every AY by offering a broad spectrum of General Education and USCP courses, offering multiple major/minor support courses, engaging the talents of many faculty as instructors and affiliates, and serving a growing core of Women's Studies Minors.**

#### *General Education and USCP courses*

The vast majority of Women's Studies courses are designated as General Education and/or USCP courses (See Appendix B: Women's Studies Core Curriculum). Based on projections for the coming year and taking our two new tenure-track joint hires into account, Women's Studies projects it will provide upper division **GE credit to approximately 528 students during the 07-08 AY. These numbers include 192 (Area C), 240 (Area D) 96 (Area F) and 523 (USCP).** (See Appendix C: WS GE and USCP P Projected Enrollments 07-08).

*Major and Minor Program Support*

Women’s Studies serves hundreds of students across the university every year by offering support courses for 5 majors , 4 minors, and 2 graduate programs. (See Appendix D: WS Major and Minor Support Courses).

*Faculty*

Faculty with research and teaching expertise in the areas of gender and sexuality have a unique forum for pedagogical and intellectual development in Women’s Studies. **In addition to four jointly-appointed faculty, 21 non-formally appointed faculty from 9 departments currently teach Women’s Studies** core and elective courses on an *ad hoc* basis. Additionally, **almost 70 Cal Poly faculty have self-identified as Women’s Studies Affiliates.** Women’s Studies is at the heart of the university’s interdisciplinary mission. (See Appendix E: WS All Faculty and Appendix F: WS Affiliated Faculty).

*Women’s Studies Minors*

Women’s Studies serves a core group of Women’s Studies minors, who represent a proportionally small but important part of the program’s engagement with students. The Minors illustrate the growing intensity of interest in Women’s Studies: since 2000-2001, the number of students involved in the minor has moved from 2 to our current average of around 30-35 (See Appendix G: WS Minors Growth 2000-2007)

**3. Departmental status will allow Women’s Studies to hire its own faculty without being entirely relegated (as is the case now) to jointly-appointed faculty whose principal affiliations are always located elsewhere.**

Because “partial hires” are the only option for a non-department, 4 faculty hires (all of whom have tenure/track responsibilities elsewhere) have created only 1.33 permanent FTEF for Women’s Studies. Appointed Women’s Studies faculty are organized thusly:

English Department (Tenure Home)	Women’s Studies Director Administrative Leave	Women’s Studies
Philosophy Department (Tenure Home)		Women’s Studies
Philosophy Department (Tenure Home)		Women’s Studies
Ethnic Studies Department (Tenure Home)		Women’s Studies

These appointments are supplemented by one additional base FTEF that Women's Studies is granted annually. This FTEF enables the program to "hire" additional faculty from other departments on an *ad hoc* basis.

There are serious disadvantages to continuing to organize Women's Studies through partial hires (and, when possible, *ad hoc* additional teaching) including:

- a) The permanent second-class status of a program without its own faculty will ensure that gender is permanently marked as a "secondary" area of academic inquiry and pedagogy. This is especially evident when Women's Studies is compared to Ethnic Studies, which has held departmental status since 1994.
- b) The administrative-intensive work of joint hires is excessively laborious, from the complex joint hiring process to scheduling difficulties to potential problems concerning the "value" of Women's Studies work in terms of a faculty member's candidacy for tenure and/or promotion in his/her home department.
- c) The "doubled" and notoriously heavy service responsibilities of joint appointments are especially challenging for Women's Studies faculty. The National Women's Studies Association (NWSA) summarizes:  
*Faculty members in Women's Studies experience service obligations that are heavier than normal. Women's Studies faculty are called upon to provide expertise for many other academic units . . . those with joint appointments need to advise students, attend meetings, and serve on committees in two academic units* (Statement of the Governing Council of the NWSA, 2000).

Lack of departmental status generates barriers and difficulties for Women's Studies on multiple levels, creating obstacles to its perceived intellectual viability, hindering and complicating its administrative processes, and increasing the workload of its faculty.

**4. Departmental status will enable Women's Studies to formulate pedagogical and scholarly principles through the development of RPT standards and processes. Departmental status will hence promote the excellence of Women's Studies and facilitate coherent long-term planning and program assessment.**

Because Women's Studies is independent yet unable to support full lines or grant tenure/promotion, it is effectively blocked from engaging in those processes which are critical to an effective educational unit, ie, developing criterion for scholarly and pedagogical excellence (specifically, standards for teaching, research and service). Self-sufficient yet lacking department status, Women's Status cannot exercise the control needed to form a coherent vision of its own future.

Women's Studies is also hindered from developing external goals or engaging in long-range planning or assessment relative to the CLA and/or the university. Whereas departments can envision and create a course of study over time, Women's Studies



cannot similarly plan and coordinate its curriculum and courses. Because all future (joint) hires occur in terms of the plans of other departments, Women's Studies cannot coherently strategize in the long term or develop effective outcomes assessment. It can only "react."

With the status and stability provided by departmental status, long-term planning and effective program assessment would be achievable. Plans for a Women's and Gender Studies Department could, of course, follow either a no/slow-growth or growth model. But the critical element here is that there would be sufficient stability for long-range planning. (See Appendix H: Sample 5 Year Plan for Women's and Gender Studies).

**5. Departmental status will empower Women's Studies to more effectively advance the mission of the university, foster diversity, promote interdisciplinary work and provide critical support in STEM areas. Women's Studies can play a unique and central role in Cal Poly's mission. It is singularly positioned to positively address issues of diversity in the curriculum, campus climate, interdisciplinary teaching and learning, and the intersection of gender issues with STEM areas.**

The 2007 Cal Poly Mission Statement affirms that a Cal Poly education should be co-curricular where possible and fundamentally connected to diversity, civic engagement, and principles of social responsibility—an educational approach that is reflected in the core of Women's and Gender Studies:

As a comprehensive institution, Cal Poly provides a balanced education in the arts, sciences, and technology, while encouraging cross-disciplinary and co-curricular experiences. As an academic community, Cal Poly values free inquiry, cultural and intellectual diversity, mutual respect, civic engagement, and social and environmental responsibility.  
(<http://www.president.calpoly.edu/mission.asp>)

The Cal Poly Strategic Plan repeatedly states that the educational mission of the university requires that academic programs address gender issues:

1.10.1 Cal Poly shall require for graduation, successful completion of course work that focuses on the issues of gender and cultural and racial pluralism, including social, political, and religious similarities and differences among societies.

1.10.2 Cal Poly shall ensure that the content of courses across the curriculum include relevant issues of gender and cultural and racial pluralism, including social, political, and religious similarities and differences among societies.

(Cal Poly Strategic Plan <http://www.president.calpoly.edu/plans.asp?pid=1>, author's emphasis)

However, despite the consistent and clear emphasis on curricular diversity and student learning in terms of *both* gender *and* race/ethnicity, Women's Studies continues to hold programmatic status. (This is notable when compared to Ethnic Studies, a small interdisciplinary program that became a department after only two years of existence, in 1994). Departmental status for Women's Studies will clearly convey that research and teaching addressing gender are also central to the university mission and to student learning, and that gender equity is every bit as important as racial and ethnic diversity.

Gender disparities and the non- or low-rate participation of women (specifically, in STEM fields) remain critical problems at Cal Poly, as is the case at many polytechnic universities. Women's Studies is precisely the academic unit best positioned to encourage the exploration of curricular and intellectual issues involved in creating a welcoming climate and increase participation and retention of women students and faculty, especially in the STEM areas. Departmental status for Women's Studies would grant both the stability and institutional status needed to engage in the development of new (especially STEM-related) courses. Departmental status would enable Women's Studies to envision courses that speak directly to curricular diversity, make hires as appropriate to long-term plans, and create interdisciplinary curricular ventures in which faculty who work on gender (especially) in STEM fields could find collegial and practical support.

Given the increased importance of interdisciplinary teaching, learning and research at Cal Poly, it is also important to note that Women's Studies is intrinsically interdisciplinary. From the Cal Poly Women's Studies Mission Statement (2001):

Women's Studies is an interdisciplinary academic field which focuses on issues of gender, examines the contributions and status of women, and seeks to broaden the academic interrogation of sex roles and gender ideals. It enables students to analyze how gender and sexuality, along with race, class and ethnicity (as well as other markers of identity), shape women's and men's lives (Cal Poly Women's Studies Mission Statement <http://www.calpoly.edu/~womst/>).

Finally, it is worth noting that emphasis on and support for Women's Studies is strongly reflected throughout the CSU system. Of the 23 campuses, all but 3 have Women's Studies (the new campuses of Channel Islands and Monterey Bay are currently developing gender studies curricula and offering classes; only the Maritime Academy has nothing in this area). The majority of CSU Women's Studies units are departments (11). All CSU campuses with Women's Studies have minors (20), the majority (14) have majors. See Appendix I: Women's Studies in the CSU: System Overview.

#### IV. Institutional Status and Naming Practices for Women's [and Gender] Studies

Since the 1970s, "Women's Studies" has been the most common name for interdisciplinary academic programs that focus on issues of gender. Over the last decade, the titles of many Women's Studies departments have changed to accommodate an expanded range of inquiry, including sexuality issues and issues of maleness and masculinity. Sometimes the title "Women's Studies" is maintained to acknowledge a still-ongoing mission of Women's Studies: to work towards insuring the inclusion of women at every level of inquiry, every level of pedagogy, and at every level of the production of knowledge. On the other hand, increasing use of an expanded title reflects the new areas of growth represented in a dynamic field. In changing from "Women's Studies" to "Women's and Gender Studies" the Cal Poly Women's Studies Faculty Board wishes to both affirm its commitment to the historic goals of access and inclusivity for women, as well as to acknowledge the newer areas of gender and sexuality studies in which its faculty and its students are actively engaged.

## Concluding Summary

Women's Studies at Cal Poly is an autonomous unit that, for many intents and purposes, already acts as a department. It offers a wide array of courses, the vast majority of which are General Education and/or USCP and many of which support various majors and minors. Women's Studies serves hundreds of students every year.

Over the last five years, Women's Studies has experienced considerable growth in faculty, in courses offered, and in students served—and now Women's Studies is at a critical juncture. There is no doubt that a Department of Women's and Gender Studies could have an important and extremely productive role at polytechnic university that is committed to excellence, curricular diversity, and progress (especially in areas such as diversity and parity in the STEM disciplines). But the extent to which Women's Studies can fill its vital role in any vision of a progressive polytechnic university now depends on it being given the stability and status needed to make its important contributions. The value of Women's Studies to Cal Poly can be significant, but only if it is allowed to take a form in which it can set standards for excellence, envision its own future, establish long-range plans, assess itself, and dynamically address critical issues. If Women's Studies is empowered to reach its full potential, it will not only benefit research and teaching in areas related to gender, but it will substantiate and advance the overall mission of the university as a whole.

## List of Appendices

- Appendix A: WS Faculty Board
- Appendix B: WS Core Curriculum
- Appendix C: WS GE and USCP Projected Enrollments 07-08
- Appendix D: WS Major and Minor Support Courses
- Appendix E: WS All Faculty
- Appendix F: WS Affiliated Faculty
- Appendix G: WS Minors Growth 2000-2007
- Appendix H: Sample 5 Year Plan for Women's and Gender Studies
- Appendix I: Women's Studies in the CSU: System Overview

**Appendix A: Women's Studies Faculty Board**

**2007-2008 Women's Studies Faculty Board**

<b>Last</b>	<b>First</b>	<b>Home Department</b>	<b>E-mail</b>
Armstrong	Mary	English/Women's Studies Director	maarmstr@calpoly.edu
Burn	Shawn	Psychology	sburn@calpoly.edu
Engle	Patrice	Psychology	pengle@calpoly.edu
Fern	Rachel	Philosophy/Women's Studies	rfern@calpoly.edu
Kuhn	Devin	Philosophy/Women's Studies	dkuhn@calpoly.edu
Lehr	Jane	Ethnic Studies/Women's Studies	jlehr@calpoly.edu
O'Bryant	Camille	Kinesiology	cobryant@calpoly.edu
Shea	Christine	Communication Studies	c Shea@calpoly.edu
Wetzel	Jean	Art & Design	jwtetzel@calpoly.edu
Williams	Jean	Political Science	jemwilli@calpoly.edu

## Women's Studies Minor Student Progression Chart

**REQUIRED COURSES (20 Units)**

WS 301	Introduction to Women's Studies (GE D5, USCP)(4)	4
WS 450	Feminist Theory (USCP)(4)	4

**Level A – Select One** 4

PSY 314	Psychology of Women (4)	
SOC 311	Sociology of Gender (4)	
WS/RELS 370	Religion, Gender and Society (GE C4, USCP)(4)	

**Level B – Select One** 4

WS 350	Gender, Race, Science and Technology (GE F, USCP)(4)	
WS/HIST 434	American Women's History to 1870 (4)	
WS/HIST 435	American Women's History from 1870 (USCP)(4)	

**Level C – Select One** 4

WS 311	Women In Cross Cultural Perspectives (GE D5)(4)	
WS 340	Sexuality Studies (GE D5)(4)	
WS 401	Seminar in Women's Studies(4)	

**ELECTIVE COURSES (8 Units)** 8

Minors must take 8 units of electives. A list of courses that currently qualify as Women's Studies electives can be found at:  
<http://www.calpoly.edu/~womst/courses.htm>

**Total Units Needed for Women's Studies Minor** **28**

*This version of the WS Minor was approved for the 2007-2009 curriculum cycle by the Women's Studies Advisory Board.*

**Appendix C: Women's Studies GE and USCP Projected Enrollments 2007-2008**

-14-

<b>2007-2008 Enrollment Projections</b>
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**Fall 2007**

<i>Course</i>	<i>GE</i>	<i>USCP</i>	<i>Units</i>	<i>Enrollment</i>	<i>SCU</i>
WS 301-01	D5	Yes	4	35	140
WS 301-02	D5	Yes	4	35	140
WS 340-01	D5	No	4	30	120
WS/ES 350-70	F	Yes	4	32	128
WS/RELS 370-70	C4	Yes	4	32	128
WS/RELS 370-71	C4	Yes	4	32	128

**Winter 2008**

<i>Course</i>	<i>GE</i>	<i>USCP</i>	<i>Units</i>	<i>Enrollment</i>	<i>SCU</i>
WS 301-01	D5	Yes	4	35	140
WS 311-01	D5	No	4	35	140
WS/ES 350-70	F	Yes	4	32	128
WS/RELS 370-70	C4	Yes	4	32	128
WS/RELS 370-71	C4	Yes	4	32	128
WS/HIST 435-70	n/a	Yes	4	30	120

**Spring 2008**

<i>Course</i>	<i>GE</i>	<i>USCP</i>	<i>Units</i>	<i>Enrollment</i>	<i>SCU</i>
WS 301-01	D5	Yes	4	35	140
WS 301-01	D5	Yes	4	35	140
WS/ES 350-70	F	Yes	4	32	128
WS/RELS 370-70	C4	Yes	4	32	128
WS/RELS 370-71	C4	Yes	4	32	128
WS 450-01	n/a	Yes	4	30	120

**TOTAL No. of GE WS Courses            16**

**TOTAL No. of WS Courses                18**

**TOTAL ENROLLMENT (ALL)               588**

**TOTAL GE Enrollment                    528**

***Subtotal GE Enrollment by Area***

*Area C                                        192*

*Area D                                        240*

*Area F                                        96*

**TOTAL USCP Enrollment                523**

**TOTAL SCU                                 2352**

**Appendix D: Women's Studies Major<sup>15</sup> and Minor Program Support Courses**

**Cal Poly Women's Studies**

<u><i>WS Course #/Title</i></u>	<u><i>Department</i></u>	<u><i>Major Support</i></u>	<u><i>Minor Support</i></u>
WS/ART 316 Woman as Subject and Object in Art History	Art and Design	Core course for the BFA	Elective for Art Minor
WS 450 Feminist Theory	English	Non-literature elective for BA in English*	
WS/ES 350 Gender, Race, Science and Technology	Comparative Ethnic Studies	Required course for the BA in Comparative Ethnic Studies	Elective for the Ethnic Studies Minor
WS/HIST 434 American Women's History to 1870	History	Elective for the BA in History**	Elective for the History Minor
WS/HIST 435 American Women's History from 1870	History	Elective for the BA in History**	Elective for the History Minor
WS 450 Feminist Theory	Philosophy	Elective for the BA in Philosophy	
WS/RELS 370 Religion, Gender and Society	Philosophy/ Religious Studies		Required course for the Religious Studies Minor

\* Can serve as a non-literature elective for the MA in English

\*\*Can serve as an elective for the MA in History

Elective courses for the Minor in Women's Studies can be taken in 9 departments: Ethnic Studies, English, Kinesiology, Music, Political Science, Psychology and Child Development, Social Sciences, Speech Communication, and Theater.

**Appendix E: All Women's Studies Faculty**

**2007-2008 All Women's Studies Faculty**

**WS Appointed Faculty**

Last	First	Home Department	E-mail	Core Course	Elective Course
Armstrong	Mary	Women's Studies Director/English	maarmstr@calpoly.edu	WS 301, WS 340, WS 450	ENGL 345
Fern	Rachel	Women's Studies/Philosophy	rfern@calpoly.edu	WS 301, WS 450	PHIL 336
Kuhn	Devin	Women's Studies/Philosophy	Devin.Kuhn@cgu.edu	WS/RELS 370	
Lehr	Jane	Women's Studies/Ethnic Studies	jlehr@vt.edu	WS/ES 350	

**WS Core Course Faculty**

Last	First	Home Department	E-mail	Core Course	Elective Course
Burn	Shawn	Psychology	sburn@calpoly.edu	WS 311	
Cairns	Kathleen	History	kcairns@calpoly.edu	WS/HIST 435	
Engle	Patrice	Psychology	pengle@calpoly.edu	WS 311	
Helmbrecht	Brenda	English	bhelmbre@calpoly.edu	WS 301	ENGL 469
King	Laura	Psychology	lking@calpoly.edu	PSY 314	
Mori	Barbara	Social Science	bmori@calpoly.edu	SOC 311	SOC 351
Shea	Christine	Communication Studies	cshea@calpoly.edu	WS 301, WS 401	COMS 421
Williams	Jean	Political Science	jemwilli@calpoly.edu	WS 301	POLS 310
Zulfacar	Mahlia	Ethnic Studies	mzulfaca@calpoly.edu	WS 401	

**WS Elective Course Faculty**

Last	First	Home Department	E-mail	Core Course	Elective Course
Halisky	Linda	College of Liberal Arts Dean/English	lhalisky@calpoly.edu		ENGL 459
Jackson	Lorraine	Communication Studies	ljackson@calpoly.edu		COMS 421
Lucas	Nancy	English	nlucas@calpoly.edu		ENGL 345
MacCurdy	Carol	English	cmaccurd@calpoly.edu		ENGL 349
Malkin	Pamela	Theater and Dance	pmalkin@calpoly.edu		TH 310
McLamore	Alyson	Music	amclamor@calpoly.edu		MU 328
O'Bryant	Camille	Kinesiology	cobryant@calpoly.edu		KINE 323
Rubba	Joanna	English	jrubba@calpoly.edu		ENGL 495
Rummell	Kathryn	English	krummell@calpoly.edu		ENGL 449
Schwartz	Deborah	English	dschwartz@calpoly.edu		ENGL 439
Trice	Tom	History	ttrice@calpoly.edu		HIST 458
Valle	Victor	Ethnic Studies Chair	vvalle@calpoly.edu		ES 300



Appendix F: Women's Studies Affiliated Faculty

Cal Poly Women's Studies Affiliated Faculty 2007 - 2008 by College

Last	First	Department	College	Office Ext.	E-mail	Office Location
Doyle	D.G.	City Regional Planning	CAED	6-2285	dgdoyle@calpoly.edu	34-236
Alptekin	Sema	Industrial & Manufacturing Engineering Chair	CENG	6-5992	salpteki@calpoly.edu	26-103A
Chen	Katherine	Materials Engineering	CENG	6-6634	kcchen@calpoly.edu	12-107F
Liddicoat	Albert	Electrical Engineering	CENG	6-5217	aliddico@calpoly.edu	20-318
Vakalis	Ignatios	Computer Science	CENG	6-6285	ivakalis@calpoly.edu	14-254
Yu	Helen	Electrical Engineering	CENG	6-2441	xhyu@calpoly.edu	20-311
Pompa	Rudy	Agribusiness	COA	6-5020	rpompa@calpoly.edu	22-209
Qenani-Petrela	Eivis	Agribusiness	COA	6-5035	eqenanip@calpoly.edu	22-301
Demsetz	Elizabeth	Physics	COSAM	6-2448	edemsetz@calpoly.edu	52-D37
Elrod	Susan	Biological Science	COSAM	6-2875	selrod@calpoly.edu	33-379
Fidopiastis	Pat	Biological Science	COSAM	6-2883	pfidopia@calpoly.edu	33-377
Glassmeyer	Sonja	Kinesiology	COSAM	6-2203	sglassme@calpoly.edu	43-373
Hynes-Dusel	Joanne	Kinesiology	COSAM	6-2545	jhynesdu@calpoly.edu	43-453
Malik	Mary	Biological Science	COSAM	6-2788	mmalik@calpoly.edu	33-281
O'Bryant	Camille	Kinesiology	COSAM	6-1787	cobryant@calpoly.edu	43A-367
Ouellette	Michelle	Physics	COSAM	6-1357	mouellet@calpoly.edu	52-E39
Tomanek	Lars	Biological Science	COSAM	6-2788	ltomanek@calpoly.edu	33-281
Ney	Cheryl	Associate Vice Provost Academic Programs	N/A	6-2246	cney@calpoly.edu	1
Allen	Regulus	English	CLA	6-2596	rallen@calpoly.edu	47-32E
Allen	Teresa	Journalism	CLA	6-6068	tallen@calpoly.edu	26-24
Armstrong	Mary	English/Women's Studies Director	CLA	6-2529	maarmstr@calpoly.edu	47-36L
Bain	Alex	English	CLA	6-5757	abain@calpoly.edu	47-35P
Bennett	Penny	Graphic Communications	CLA	6-2408	pkbennet@calpoly.edu	26-208
Burn	Shawn	Psychology & Human Development	CLA	6-2934	sburn@calpoly.edu	47-23C

Appendix F: Women's Studies Affiliated Faculty

Cal Poly Women's Studies Affiliated Faculty 2007 - 2008 by College

Last	First	Department	College	Office Ext.	E-mail	Office Location
Cairns	Kathleen	History	CLA	6-2863	kcairns@calpoly.edu	47-25N
Call	Lewis	History	CLA	6-2672	lcall@calpoly.edu	47-25M
Cotkin	George	History	CLA	6-2763	gcotkin@calpoly.edu	47-25A
Den Otter	Ron	Political Science	CLA	6-6147	rdenotte@calpoly.edu	47-11R
Engle	Patrice	Psychology & Child Development	CLA	6-2914	pengle@calpoly.edu	47-23F
Fagan	Kevin	Modern Languages and Literatures	CLA	6-2750	kfagan@calpoly.edu	47-26B
Fern	Rachel	Philosophy/Women's Studies Program	CLA	6-2330	rfern@calpoly.edu	47-34R
Firpo	Christina	History	CLA	6-2834	cfirpo@calpoly.edu	47-27A
Gillette	David	English	CLA	6-2331	ddgillet@calpoly.edu	47-14H
Halisky	Linda	English	CLA	6-2596	lhalisky@calpoly.edu	47-32D
Helmbrecht	Brenda	English	CLA	6-2178	bhelmbre@calpoly.edu	47-35F
Hennessee	David	English	CLA	6-2596	dhennes@calpoly.edu	47-32E
Hewitt	Crissa	Art & Design	CLA	6-2046	chewitt@calpoly.edu	34-124
Jipson	Jennifer	Psychology & Child Development	CLA	6-2611	jjipson@calpoly.edu	47-21B
Jovanovic	Jasna	Psychology & Child Development	CLA	6-2854	jjovanov@calpoly.edu	47-21N
Keesey	Doug	English	CLA	6-2596	dkeesey@calpoly.edu	47-32D
Kennelly	Brian	Modern Languages and Literatures	CLA	6-2889	bkennell@calpoly.edu	47-28
King	Laura	Psychology & Child Development	CLA	6-6131	lking@calpoly.edu	47-21Q
Kuhn	Devin	Philosophy/Women's Studies Program	CLA	6-2042	Devin.Kuhn@cpu.edu	
Lehr	Jane	Ethnic Studies/Women's Studies Program	CLA	6-1707	jlehr@vt.edu	
Long	Dianne	Political Science	CLA	6-5717	dlong@calpoly.edu	47-14C
Lovaglio	Enrica	Art & Design	CLA	6-2446	elovagli@calpoly.edu	34-163
Lucas	Nancy	English	CLA	6-2974	nlucas@calpoly.edu	47-34F

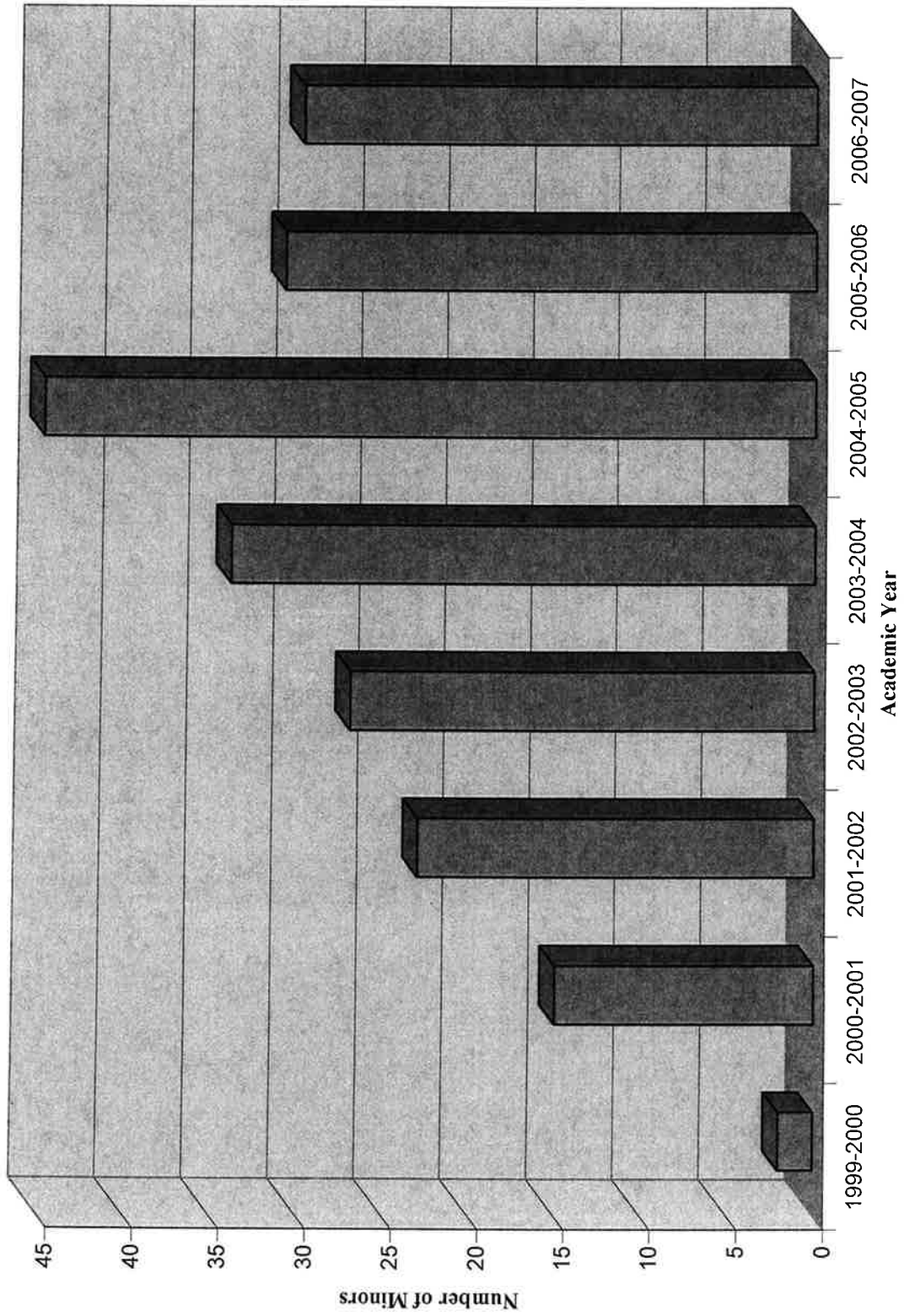
Cal Poly Women's Studies Affiliated Faculty 2007 - 2008 by College

Last	First	Department	College	Office Ext.	E-mail	Office Location
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Appendix F: Women's Studies Affiliated Faculty

MacCurdy	Carol	English	CLA	6-2141	cmaccurd@calpoly.edu	47-26F
Malkin	Pam	Theatre & Dance	CLA	6-6701	pmalkin@calpoly.edu	45-103
McLamore	Alyson	Music	CLA	6-2612	amclamor@calpoly.edu	45-132
Mori	Barbara	Social Science	CLA	6-6261	bmori@calpoly.edu	47-13D
Morgan	Jane	Women's Studies Program	CLA	6-6701	jmorgan@cuesta.edu	34-226
Pedrotti	Jennifer	Psychology & Child Development	CLA	6-2644	jpedit@calpoly.edu	47-21C
Petray-Covey	Marnie	English	CLA	6-2143	mpetray@calpoly.edu	47-35D
Richison	Jeannine	English	CLA	6-2134	jrichiso@calpoly.edu	47-35L
Rong	Xiaoying	Graphic Communications	CLA	6-2027	xrong@calpoly.edu	26-209A
Rubba	Johanna	English	CLA	6-2184	jrubba@calpoly.edu	47-35B
Rucas	Stacey	Social Science	CLA	6-1374	srucas@calpoly.edu	47-12B
Rummell	Kathryn	English	CLA	6-2142	krummell@calpoly.edu	47-32A
Russell	Craig	Music	CLA	6-1547	crussell@calpoly.edu	45-12J
Schwartz	Debora	English	CLA	6-2636	dschwartz@calpoly.edu	47-35C
Shea	Christine	Communication Studies	CLA	6-2909	cshea@calpoly.edu	47-36F
Sweatt	Lisa	Psychology & Child Development	CLA	6-6123	lsweatt@calpoly.edu	47-21A
Teitelbaum	Jeremy	Communication Studies	CLA	6-2869	jteitelb@calpoly.edu	47-36Q
Trice	Thomas	History	CLA	6-2724	ttrice@calpoly.edu	47-25P
Valle	Victor	Ethnic Studies	CLA	6-2827	vvalle@calpoly.edu	38-138
Velasquez	Gloria	Modern Languages & Literatures	CLA	6-2992	gvelasqu@calpoly.edu	47-26D
Waitinas	Catherine	English	CLA	6-2136	cwaitina@calpoly.edu	47-32E
Wetzel	Jean	Art & Design	CLA	6-1272	jwtetzel@calpoly.edu	34-147
Williams	Jean	Political Science Chair	CLA	6-7168	jemwilli@calpoly.edu	47-11F

**Appendix G: Women's Studies Minors**





Appendix I: Overview of Women's Studies in the CSU

2006-2007

<u>CSU</u>	<u>Name of Program</u>	<u>Minor</u>	<u>Major</u>	<u>Masters</u>	<u>Director/Coordinator</u>	<u>Contact Information</u>	<u>Comments</u>	<u>Program/Dept.</u>
Bakersfield	Women and Gender Studies Program	X			Constance Orfiski	<a href="mailto:corfiski@csub.edu">corfiski@csub.edu</a>		P
Channel Islands	NONE							n/a
Chico	Women's Studies	X	X		Dr. Susan Place			D
Dominguez Hills	Women's Studies Program	X			Dr. Clare Weber	<a href="mailto:cweber@csudh.edu">cweber@csudh.edu</a>		P
East Bay	Women's Studies Program	X			Dr. Patricia Gutherie			P
Fresno	Women's Studies	X	X		Dr. Loretta Kensinger	<a href="mailto:karenlo@csufresno.edu">karenlo@csufresno.edu</a>		D
Fullerton	Women's Studies	X	X		Renae Bredin	<a href="mailto:rbredin@fullerton.edu">rbredin@fullerton.edu</a>		D
Humboldt	Women's Studies Program	X	X		Dr. Kim Berry	<a href="mailto:kb14@axe.humboldt.edu">kb14@axe.humboldt.edu</a>		P
Long Beach	Women's Studies	X	X		Dr. Elyse Blankley	<a href="mailto:blankley@csulb.edu">blankley@csulb.edu</a>		D
Los Angeles	Women's and Gender Studies	X						P
Maritime Academy	NONE							n/a
Monterey Bay	WS within the Human Communication Major	X *	X *		Unavailable		*Offered only as a concentration for the Human Communication Major	
Northridge	Women's Studies	X	X		Dr. Nayereh Tohdi	<a href="mailto:navereh.tohida@csun.edu">navereh.tohida@csun.edu</a>		D
Pomona	Ethnic and Women's Studies Department	X *	X *		Dr. Patricia de Freitas	<a href="mailto:pdefreitas@csupomona.edu">pdefreitas@csupomona.edu</a>	*Offered only as a concentration for the Gender, Ethnicity, and Multicultural Studies Major	D
Sacramento	Women's Studies	X	X*	X*	Dr. Rita Cameron	<a href="mailto:cameronwedding@csus.edu">cameronwedding@csus.edu</a>	* "Special" Major/"Special" Major Graduate Programs Offered	D
San Bernadino	Women's Studies Program	X			Dr. Aurora Wolfgang	<a href="mailto:aurora@csusb.edu">aurora@csusb.edu</a>		P
San Diego	Women's Studies	X	X	X	Dr. Bonnie Kime Scott	<a href="mailto:bkscott@mail.sdsu.edu">bkscott@mail.sdsu.edu</a>		D
San Francisco	Women's Studies	X	X	X	Dr. Loretta Stec	<a href="mailto:woms@sfsu.edu">woms@sfsu.edu</a>		D
San Jose	Women's Studies Program	X	X		Dr. Shahin Gerami	<a href="mailto:socs@sjsu.edu">socs@sjsu.edu</a>		P
San Luis Obispo	Women's Studies Program	X			Dr. Mary Armstrong	<a href="mailto:maarmstr@calpoly.edu">maarmstr@calpoly.edu</a>		P
San Marcos	Women's Studies	X	X		Dr. Linda Pershing	<a href="mailto:lpershing@csusm.edu">lpershing@csusm.edu</a>		D
Sonoma	Women's and Gender Studies	X	X		Nan Alamilla Boyd	<a href="mailto:nan.alamilla_boyd@sonoma.edu">nan.alamilla_boyd@sonoma.edu</a>		D
Stanislaus	Gender Studies Program	X			Dr. Betsy Eudey	<a href="mailto:Beudey@csustan.edu">Beudey@csustan.edu</a>		P

Adopted:

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

AS-\_\_-08

**RESOLUTION ON  
DIVERSITY LEARNING OBJECTIVES**

- 1 WHEREAS, The Cal Poly Mission Statement declares that the University values cultural and intellectual  
2 diversity; and  
3
- 4 WHEREAS, The University Learning Objectives state that all Cal Poly graduates should be able to make  
5 reasoned decisions based on a respect for diversity; and  
6
- 7 WHEREAS, The Cal Poly Academic Senate has affirmed the academic value of diversity (AS-505-98);  
8 and  
9
- 10 WHEREAS, The Academic Senate has created the Cal Poly Statement on Diversity (AS-506-98), which  
11 is included in the catalog and posted on the Academic Programs web site and which includes  
12 a definition of diversity; and  
13
- 14 WHEREAS, We all understand that the awareness of diversity and its value can be increased both through  
15 the curriculum and through extra-curricular activities; and  
16
- 17 WHEREAS, The campus has been active in organizing and promoting extra-curricular activities to  
18 increase student awareness of diversity and its value; and  
19
- 20 WHEREAS, Cal Poly's Diversity in the Curriculum Task Force recommended the adoption of Diversity  
21 Learning Objectives in a January 2004 report; and  
22
- 23 WHEREAS, The Academic Senate Curriculum Committee, with input from Ethnic Studies, Women's  
24 Studies, and the University Diversity Enhancement Council has created the attached  
25 Diversity Learning Objectives; and  
26
- 27 WHEREAS, While there are several diversity requirements in the curriculum, there are no campus  
28 diversity learning objectives; therefore be it  
29
- 30 RESOLVED: That the Diversity Learning Objectives shall be considered an addendum to the University  
31 Learning Objectives; and be it further  
32
- 33 RESOLVED: That satisfying the Diversity Learning Objectives shall be the responsibility of every  
34 academic program.

Proposed by: Academic Senate Curriculum Committee  
Date: December 19, 2007  
Revised: January 25, 2008

## ***DIVERSITY LEARNING OBJECTIVES***

**(December 19, 2007)**

**(Revised January 25, 2008)**

All students who complete an undergraduate or graduate program at Cal Poly should be able to make reasoned decisions based on a respect for diversity as defined in the Cal Poly Statement on Diversity, which is included in the catalog and posted on the Academic Programs web site. They should be able to:

1. Function as members of society and as professionals with people who have ideas, beliefs, attitudes, and behaviors that are different from their own
2. Demonstrate an understanding of the relationships between diversity, inequality, and social/political power both in the United States and globally
3. Demonstrate knowledge of contributions made by individuals from diverse and/or underrepresented groups to our local, national, and global communities
4. Understand that an integral element of learning and decision-making is consideration of diverse perspectives





## ACADEMIC PROGRAMS

California Polytechnic State University, San Luis Obispo, CA 93407

Search the **Academic Programs** Web site

Go

- :: [Academic Programs Home](#)
- :: [Who We Are](#)
- :: [What's New](#)
- :: [Academic Policies](#)
- :: [Accreditation & Program Review](#)
- :: [Assessment](#)
- :: [Calendar](#)
- :: [Catalog](#)
- :: [Curriculum Handbook](#)
- :: [Forms](#)
- :: [Instructionally Related Activities \(IRA\)](#)
- :: [Special Initiatives](#)

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### What's New

#### UNIVERSITY LEARNING OBJECTIVES

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

- Think critically and creatively
- Communicate effectively
- Demonstrate expertise in a scholarly discipline and understand that discipline in relation to the larger world of the arts, sciences, and technology
- Work productively as individuals and in groups
- Use their knowledge and skills to make a positive contribution to society
- Make reasoned decisions based on an understanding of ethics, a respect for diversity, and an awareness of issues related to sustainability
- Engage in lifelong learning

*-Approved by President Baker January 23, 2007*



## ACADEMIC PROGRAMS

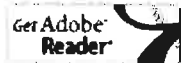
California Polytechnic State University, San Luis Obispo, CA 93407

Search the **Academic Programs** Web site

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## Academic Policies

### CAL POLY STATEMENT ON DIVERSITY\*

*\*The definition of diversity is specifically inclusive of, but not limited to, an individual's race/ethnicity, sex/gender, socioeconomic status, cultural heritage, disability and sexual orientation.*

At the heart of a university is the responsibility for providing its students with a well-rounded education, an education that fosters their intellectual, personal and social growth. For students preparing to embark upon work and life in the 21st century, a critical element of a well-rounded education is the ability to understand and to function effectively in a diverse and increasingly interdependent global society. As noted in a recent statement from the American Association of University Professors (AAUP), "the argument for the necessity of diversity is perhaps stronger in higher education than in any other context... The ultimate product of universities is education in the broadest sense, including preparation for life in the working world." In this regard, it is in the compelling interest of Cal Poly, the state, and the nation to provide our students with an education that is rich with a diversity of ideas, perspectives, and experiences.

Thus, diversity serves as a fundamental means to enhance both the quality and value of education. It cannot be a mere adjunct to such an education but must be an integral element of the educational experience, infused throughout the community (faculty, students, and staff), the curriculum, and the cocurricular programs of the University.

- As a University whose motto is "to learn by doing," Cal Poly explicitly understands the importance that experience brings to education. When students are exposed personally and directly to faculty, staff, and other students from diverse backgrounds, their stereotypes about "the other" are challenged. As the AAUP statement notes, such personal interaction gives students an understanding of the "range of similarities and differences within and among ... groups" that "no textbook or computer" can provide. For this reason, both the formal and informal classroom (i.e., the rich

learning experiences that occur for our students during their cocurricular activities), must be constituted in a way that reinforces the value of encountering and considering diversity.

- Moreover, diversity in the curriculum is a fundamental component of a well-rounded and beneficial education. The perspectives provided by the University are contingent upon the content and purpose of its courses. Since the curriculum is the principal expression of our educational goals and values, it must signal the importance of diversity to the Cal Poly mission, to the institutional culture, and to our teaching and learning environment in clear and unambiguous terms.

Thus, the University community (its students, faculty, and staff), the curriculum, and the co-curricular environment must be dedicated to the principle of ensuring that all of our students routinely encounter diverse people, ideas, and experiences.

Only through intellectual and first-hand personal exposure to diversity in its myriad forms-racial, ethnic, cultural, gender, geographic, socioeconomic, etc.-will students gain the understanding, empathy, and social skills that they will require to be effective, engaged citizens in an increasingly crowded and interrelated global community. The benefit of diversity is universal. Cal Poly's commitment to diversity signals an affirmation of the highest educational goals of this University, including mutual respect, civility, and engaged learning.

[Download a printable PDF version of Cal Poly's Statement on Diversity](#)

#### **Related Links:**

- [Academic Senate Resolution AS-506-98/DTF \(PDF\)](#)
- [Learning Objectives for Diversity in the Curriculum](#)
- [Diversity in the Curriculum Task Force Report, 2004](#)

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[Special Initiatives](#)	[Cal Poly Home Page](#)	[Cal Poly Find It](#)		

Adopted:

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

AS-\_\_-08

**RESOLUTION ON  
NEW MASTERS OF SCIENCE DEGREE IN  
BIOMEDICAL ENGINEERING**

- 1 WHEREAS, The Biomedical and General Engineering Department is proposing the  
2 implementation of Masters of Science in Biomedical Engineering to be taught in  
3 addition to the Biomedical Engineering specialization in the Masters of Science in  
4 Engineering degree; and  
5
- 6 WHEREAS, The existing specialization and BS degrees in Biomedical Engineering are very  
7 popular and strongly supported by the Dean of Engineering and ~~their industries~~ the  
8 biomedical industry and  
9
- 10 WHEREAS, The Academic Senate Curriculum Committee has carefully considered this  
11 proposal and recommends its approval; and  
12
- 13 WHEREAS, A summary of the proposal is attached to this resolution with the full proposal  
14 available in the Academic Senate office; therefore be it  
15
- 16 RESOLVED: That the Academic Senate of Cal Poly approve the proposal for a Masters of  
17 Science in Biomedical Engineering and that the proposal be sent to the  
18 Chancellor's Office for final approval.

Proposed by: Academic Senate Curriculum Committee  
Date: January 2, 2008  
Revised: February 5, 2008



**College of Engineering**  
Cal Poly San Luis Obispo  
**Memorandum**

*From:*  
*To:*

~~To:~~ Dr. William Durgin, Provost **Date:** January 9, 2008  
~~Via:~~ David Conn, Academic Programs  
~~Via:~~ Academic Senate  
**From:** Mohammad Noori, CENG Dean *M. Noori*  
**Subject:** Letter of Support for the BMED MS Program

I am pleased to provide my full support for the establishment of the Master's of Science in Biomedical Engineering Program. This program is a logical outgrowth of an extremely popular MS in Engineering with a specialization in Biomedical Engineering. Currently, this program is the largest graduate program in the College of Engineering and has extensive industrial support from companies, such as St. Jude Medical, Medtronic, Abbott, and Edwards Life Sciences.

The BMED MS program is critical to furthering the College of Engineering and Cal Poly's mission. As such, I am fully committed to providing the necessary faculty, staff, and space in order to achieve the goal of establishing and maintaining the nation's premier professional master's program in biomedical engineering.

These are exciting times for the College and we are realizing our potential to become the best engineering college in the nation. The BMED MS Program is one of many examples of our continued success. I urge you to partner with us to create the number one BMED MS program in the nation.

APPROVED: *William W. Durgin* *1/16/08*  
William W. Durgin Date

Biological Sciences Department

**CAL POLY**

SAN LUIS OBISPO

CA 93407

**Memorandum**

To : Lanny Griffin  
Director  
Biomedical and General Engineering

Date: November 27, 2007

From : Michael A. Yoshimura, Chair  
Biological Sciences Department

Copies:

Subject: MS in Biomedical Engineering

The Biological Sciences Department has no objections to the proposed MS Degree in Biomedical Engineering. We do have some concerns.

The list of Elective Courses in Section 4.g only has three courses offered by the Biological Sciences Department. We realize that the current list is not meant to be comprehensive. However, below, is a list of additional courses we feel would be appropriate for students interested in some areas of biomedical engineering and wanting a biological perspective:

BIO 426 Immunology (Prerequisite: BIO 351)  
BIO 432 Vertebrate/Human Anatomy and Physiology I (Prerequisite: BIO 361)  
BIO 433 Vertebrate/Human Anatomy and Physiology II (Prerequisite: BIO 361)  
BIO 452 Cell Biology (Prerequisite: BIO 351 or CHEM 373 and CHEM 312 or CHEM 317)  
ZOO 428 Hematology (Prerequisite: BIO 351)

We also do not have problems with students in this proposed program having access to graduate courses in Biology as long as the students have the appropriate prerequisites, academic background, or consent of the instructor. However, we will have a course enrollment capacity issue if a large number of BMED students enroll in our graduate classes and compete for spaces with students in our program.

A similar concern is the requirement that the BMED students have taken ZOO 331 or equivalent. The expectation is that most of the students should have had this prerequisite prior to beginning the MS degree program. However, if a large number of students need to enroll in ZOO 331, we may have enrollment capacity issues. We would appreciate being consulted on projected enrollment needs for the biomedical engineering programs.

Cal Poly, San Luis Obispo

Summary Statement of Proposed New Degree Program for Review by Academic Senate

1. Title of Proposed Program.

Master's of Science in Biomedical Engineering

2. Reason for Proposing the Program.

Currently, students can obtain a Master's of Science in Engineering with a specialization in biomedical engineering. This specialization has been on-going since 2000. The specialization was developed as a means to satisfy student demand without a formal program in biomedical engineering. It has been our intention that when a biomedical engineering department was formed, we would offer a Master's of Science in Biomedical Engineering. The Biomedical Engineering Program is now established and the MS in Engineering Specialization program is wildly popular with students within the College of Engineering, and other colleges at Cal Poly (primarily Science and Math). Furthermore, there is a profound interest from industry. Currently, we have enrolled our third distance learning cohort of students at St. Jude Medical with Abbott expressing interest in beginning a similar distance learning program at their site. All of these factors portend that the time for having a formal Master's of Science degree is now.

3. Anticipated Student Demand.

	Number of Students		
	<u>at initiation</u>	<u>3 years after initiation</u>	<u>5 years after initiation</u>
<sup>1</sup> Number of Majors	60	90	120
Number of Graduates	15	35	50

Notes: 1. Of the student number projections for the BMED MS, approximately 40% are at St. Jude Medical in Sylmar and Sunnyvale.

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.

We have examined the library resources and believe that the program can be supported by current subscriptions, textbooks, and the interlibrary loan program. In fall 2007, we have 5 new faculty as well as the support of the Dean to add additional faculty. We have examined space allocation and have a commitment to

use interdisciplinary space in Engineering IV for meeting some of the demands for space needed to support the program. We have made use of current space allocations by creating multi-purpose laboratory space that can easily be configured for a diverse set of laboratory experiences.

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

The very nature of this complex, multidisciplinary field almost necessitates that students obtain a graduate degree. Biomedical engineering combines engineering expertise with medical needs for the enhancement of health care. It is a branch of engineering in which knowledge and skills are developed and applied to define and solve problems in biology and medicine. Students choose the biomedical engineering field to be of service to people; for the excitement of working with living systems; and to apply advanced technology to the complex problems of medical care. The biomedical engineer is a health care professional, a group which includes physicians, nurses, and technicians. Biomedical engineers may be called upon to design instruments and devices, to bring together knowledge from many sources to develop new procedures, or to carry out research to acquire knowledge needed to solve new problems. Graduates with the MS in Engineering continue to find excellent employment, with about 20 to 30 percent going on the medical schools and doctoral studies. The continued popularity of the distance learning program with industry demonstrates that industry believes that there is a chronic need engineers to have an MS degree in biomedical engineering.

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

We intend to keep the current specialization in BMED as an option for students who desire additional flexibility as well as providing a degree opportunity for those who prefer a non-thesis MS. The current concentration was proposed to meet student and industry demand before a Biomedical Engineering Program existed. The overwhelming demand indicates that a named master's program will serve both students and our industrial partners.

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

N/A

**8. Briefly describe how the new program fits with the department/college/ university strategic plans.**



The MS in Biomedical Engineering provides a viable means to create tangible growth within the college and university by attracting students who would otherwise not come to Cal Poly. It provides a logical means for students from other engineering programs to specialize in biomedical engineering. Industry members are attracted to the program because it provides a means for obtaining a master's degree at their workplace. While other institutions offer distance learning programs, ours is synchronous, and is less expensive than private institutions. Further, Cal Poly benefits from this arrangement on many levels; for example, our students have greater access to the industry through cooperative education and internships as well as obtaining full time employment.

## Curriculum

### Total number of units required for the major.

- 45 units minimum
- At least half of the units are 500 level
- Up to nine (9) units of thesis

A list of all courses *required* for the major, specifying catalog number, *title*, units of credit, and prerequisites or co-requisites (ensuring that there are no “hidden” prerequisites that would drive the total units required to graduate beyond the total reported in 4c above).

Required Course	Units	Prerequisite
BMED 460 – Engineering Physiology	4	ZOO 331, BMED 310
BMED 512 – Biomedical Engineering Horizons	4	MATH 143, CHEM 125, PHYS 131, BIO 161
BMED 530 – Biomaterials	4	BIO 213, ENGR 213, MATE 213
BMED 550 – Current and Evolving Topics in Biomedical Engineering	4	Graduate Standing or Consent
BMED 563 – Biomedical Graduate Seminar	2	Graduate Standing or Consent
BMED 599 – Design Project (Thesis), BMED 591, BMED 592 can sub for 2 or 4 units of thesis or project	9	Graduate Standing

List of *elective* courses that can be used to satisfy requirements for the major, specifying catalog number, title, units of credit, and prerequisites or co-requisites. Include proposed catalog descriptions of all new courses. For graduate program proposals, identify whether each course is a graduate or undergraduate offering.

Elective Courses (18 units)	Units	Prerequisites
Any BMED or ENGR Course at 400 or 500 level	Varied	varied
BIO 441 Bioinformatics Applications (4)	4	BIO 111 or 161
BIO 426 Immunology	4	BIO 351
BIO 432 Vertebrate/Human Anatomy I	5	BIO 361

BIO 433 Vertebrate/Human Anatomy II	5	BIO 361
BIO 452 Cell Biology	5	BIO 351 or CHEM 371 and CHEM 312 or CHEM 317
BIO 501 Cell & Molecular Biology	4	Graduate Standing
BIO 502 Biology of Organisms	4	BIO 501
BIO 542 Multivariate Biometry	4	2 courses in statistics
CHEM 544 Polymer Physical Chemistry and Analysis	3	CHEM 351
CHEM 545 Polymer Synthesis and Mechanisms	3	CHEM 317
CHEM 547 Polymer Characterization and Analysis Laboratory	2	CHEM 544
CHEM/MATE 446 Surface Chemistry of Materials	3	CHEM 305 or 351, or engr thermodynamics
CHEM 473 Immunochemistry	3	CHEM 371 or consent
CHEM 478 Pharmaceutical Development	3	CHEM 318
CSC 448 Bioinformatics Algorithms	4	CSC/CPE 103 or BIO 447
CE 504 Advanced Finite Element Analysis I	4	CE 501 or consent of instructor
CE 505 Advanced Finite Element Analysis II	4	CE 504
EE 513 Control Systems Theory	4	EE 301 or consent of instructor
EE 514 Advanced Topics in Automatic Control	4	EE 513
IME 437 Advanced Human Factors Engineering	3	IME 319, IME 326
ME 402 Orthopedic Biomechanics	4	ME 328 or consent
ME 404 Applied Finite Element Analysis	4	ME 329
ME 501 Continuum Mechanics and Linear Elasticity	4	ME 401 or consent
ME 502 Finite Element Analysis	4	ME 501 or consent
ME 503 Inelastic Stress Analysis	4	ME 501 or consent
STAT 513 Applied Experimental Design and Regression Models	4	One of the following: STAT 512, STAT 217, STAT 218, STAT 221, STAT 252, STAT 312, or equivalent.
STAT 530 Statistical Computing I: SAS	4	One of the following: STAT 512, STAT 513, STAT 542
STAT 542 Statistical Methods for Engineers	4	MATH 142
MATH 418 – Partial Differential Equations	4	MATH 344, MATH 304 Recommended
MCRO 423 – Medical Microbiology	5	MCRO 225 and CHEM 312 or CHEM 316
MCRO 402 – General Virology	4	BIO 351 or CHEM 373
KINE 406 – Neuroanatomy	4	ZOO 331, ZOO 332
KINE 445 – Electrocardiography	4	KINE 303 or consent
ZOO 428 Hematology	4	BIO 351

This list is not meant to be by any means exhaustive, but rather a small sampling of some acceptable courses. There are many other acceptable courses from many other disciplines. The students will develop a detailed formal study plan in consultation with their graduate advisor.