

**CALIFORNIA STATE UNIVERSITY, EAST BAY**

**DESIGNATION CODE: 05-06 CAPR 17**

**DATE SUBMITTED: May 4, 2006**

**TO:** The Academic Senate

**FROM:** The Committee on Academic Planning and Resources (CAPR)

**SUBJECT:** Five-Year Program Review for Geography and Environmental Studies

**PURPOSE:** For Action by the Academic Senate

**ACTION REQUESTED:** Acceptance of the Five-Year Program Review of the Geography and Environmental Studies Programs and approval of the continuation of the programs without modification

**BACKGROUND**

**INFORMATION/ Executive Summary:**

The Department of Geography and Environmental Studies consists of six regular faculty members, several lecturers, some with regular contracts, and one administrative support person. In Fall Quarter 2005, the quarter with the most recent statistics, the department had 55 majors and offered 18 course sections. The department offers three degrees: Geography B.S. Environmental Studies B.A and Geography M.A.

Beyond its majors and minors the department serves the CSUEB students with the several courses fulfilling General Education requirements in both lower and upper division courses. Courses are regularly taught at both the Hayward and Contra Costa campuses.

The Department of Geography and Environmental Studies scored 96% (56/58) on the *Student Learning Outcomes Assessment Plan Rubric* from the WASC Campus Outcome Team. In its Self Study the department painted a picture of itself as sustaining quality and increasing variety in its educational programs, increasing enrollment and number of majors through acceptance of lower division courses into the GE program, participating in university governance, and developing a sense of community for its students against the obstacles of heavy teaching loads, and a physically separated department space.

The Department of Geography and Environmental Studies has ambitious plans for improvement in four areas: revamping the three degrees it offers, expanding the number of students who are declared majors in the department, requesting an additional tenure track faculty position, and updating and uniting its office and laboratory physical spaces.

The department has made a commendable effort toward collecting and using assessment data. Several recommendations for additional data collection are identified in the review.

**CAPR RECOMMENDATION FOR CONTINUATION OF THE PROGRAM**

CAPR recommends the continuation of the Geography B.S., the Environmental Studies B.A and Geography M.A. without modification. The next CAPR review will take place 2007-2008

## 1. BACKGROUND

- **Overview description of the program:** See Executive Summary, page 1
- **Overview of the documents submitted to CAPR**

The following documents were submitted by the Department of Geography and Environmental Studies for the five year program review: Five Year Plan for the department; Appendix A to the Plan (Self study including prior program review, tenure track requests, and assessment information); Appendix B (External Reviewer's Report); and Appendix C (Response to the External Reviewer's report).

## 2. FIVE-YEAR PROGRAM REVIEW/SELF-STUDY (1997-2002)

- **Summary of specific areas of the Self-Study**

The Department Geography and Environmental Studies is to be commended for the thoroughness of the material presented to the Committee on Academic Program Review for the five-year review. The program clearly characterized its recent and current status with respect to faculty and lecturer staffing, student enrollment, and courses of study. The department identified ten objectives that it was to address during the period immediately prior to this review and the action completed in those goal areas. The department Self-Study contains seven sections that will be summarized below.

### Section I – Prior Program Review

The five-year review completed in 2002 identified ten thematic elements to address:

- 1) maintain and expand department majors and nonmajors,
- 2) improve quality of education at the undergraduate and graduate levels,
- 3) maximize relevancy of curriculum to career options and lifelong learning,
- 4) raise visibility and professional standing of the department,
- 5) upgrade laboratory educational technology,
- 6) revamp curriculum,
- 7) develop and implement a more focused M.A. program,
- 8) review and maximize assigned physical space,
- 9) further develop interdisciplinary/multidisciplinary teaching and research, and
- 10) closely and fully integrate a field component into the program.

The department identified several individual objectives associated with each thematic element. The department Self Study critically evaluated progress in each thematic element and individual objective. Progress in each thematic area is evident through data and information presented in the Self Study and 2002-2007 Five Year Plan. However, as the department notes on page 2 of the Self Study, "In retrospect, this planning attempt (note: for the period 1997 – 2002) now appears too ambitious and idealistic. The plan did not – or could not – foresee the changes that would occur in the coming five year." Two significant examples of the changes noted in the above quote were in personnel reassignment to administrative positions, and facilities relocation. The faculty reassignments were that Dr. Eder served as Associate Dean of CLASS for two years and then the University Outreach Coordinator, and Dr. Larson served as Interim Dean of ALSS for two years. The facilities reassignment was relocation of the department offices to Robinson

Hall while the Cartography and Geographic Information Systems Laboratory remained in Meiklejohn Hall.

The department made progress in each thematic element of its previous plan. For example, in assessing the individual goal of emphasizing 3000 level recruiting courses (an objective in thematic element one) the department recognized the power of its GEOG 3000 course (Resource Management) and changed the pattern of offering the course which led to robust enrollment. Another example is an individual goal of the sixth thematic element. This goal sought to develop curriculum statistics to better understand course enrollment patterns. The department reviewed class schedules and faculty assignments but did not review major and nonmajor enrollment patterns. The results of these reviews were used in course planning. The department chair was commended by faculty for managing course programming (particularly for new courses), enrollment, and timing of course offerings such that FTES was sustained.

The department identified at least three individual goals under each thematic element. In the Self Study the department was candid about its achievements, redirections and shortcomings with respect to each individual objective. For those areas in which individual objectives were not attained, the department provided an explanation or a plan for future action.

### Section II – Tenure-Track Requests and Appointments, 1997 - 2002

The Department of Geography and Environmental Studies submitted one Tenure Track request in this period and successfully hired Dr. Karen Garbesi. There was one reduction in FTEF as Dr. Herb Eder elected to participate in Faculty Early Retirement Program, and his remaining FTE resources were reassigned to the Office of Academic Programs.

### Section III – Outcomes Assessment

The department completed an assessment plan in 2003, following initial submission to CLASS in November 2001 and subsequent revisions. The plans for the Geography B.S. and M.A. each contain five student learning outcomes, and the plan for the Environmental Studies B.A. contains seven. The SLOs for the Geography B.S. and Environmental Studies M.A. are assessed through four instruments: an Entrance Interview, Portfolio of Student Projects, an Exit Interview, and an Individual Assessment Grid. The Geography M.A. SLOs are assessed through an Individual Assessment Grid.

The Entrance Interview is conducted with the major advisor soon after a student declares the major. It consists of a semi-structured interview to determine a student's levels of interest and knowledge about geography and environment, and a self-assessment of the student's perceived strengths and weaknesses. At this time the student begins the Portfolio, with writing samples produced prior to entry into the major.

The Portfolio of Student Projects contains evidence of performance in eight areas: quantitative analysis skills; computing; EIR work (ENVT majors); map and graphical projects (GEOG majors); oral presentation; subject area mastery; subject area experience; and writing

skills. The portfolio is to be submitted as a part of the Exit Interview and prior to filing for graduation.

The Exit Interview is also conducted with the major advisor. It consists of a portfolio review; a semi-structured interview to determine a student's levels of interest and knowledge about geography and environment as covered in the Entrance Interview, a self-assessment of the student's perceived strengths and weaknesses; and a Department Assessment Questionnaire.

The Individual Assessment Grid was created for each major. The commonalities are that each student is measured in five performance areas: oral English; written English; research skills; social science methods; and technical skills. Within the grid for each major, specific courses and activities are designated as performance indicators. For example, for the Geography B.S., under the heading, *Oral English*, the performance indicators are a) Literature review presentation (GEOG 3450), b) Exit Interview (Grad Check), and c) other.

Use of the Assessment Instruments. The department began implementing two of its four assessment instruments (Entrance Interview and Portfolio of Student Projects) in AY 2003-04. The Individual Assessment Grid was still under construction during that year and not completed until AY 2004-05, when it was made operational for the Winter and Spring Quarters and used on seniors only. Exit Interviews, which had been conducted on an ad hoc basis since 2001 and from which the faculty gained valuable information that led to recent and ongoing restructuring of the curriculum (such as the addition of a course in quantitative methods), were conducted with most but not all graduating seniors in Environmental Studies and Geography. Those interviews, too, though few in number owing to the small number of students in the graduating class, provided feedback that helped the chair decide which quarter in subsequent years would be best for scheduling various advanced courses. (For example, provide a better balanced annual schedule by reducing the total number of advanced courses offered in the Spring and redistributing a couple of them to Fall.)

Data from the Individual Assessment Grids for the Geography programs are the most complete to date, as all courses that are part of the assessment were taught during the traditional FWS academic year. Of the 9 students for whom assessments were made, 6 were deemed competent in *Oral English*; 2 could claim it as an Area of Strength and 1 Needed Improvement. "Competent" was set as an average grade of "B-" or above for the four oral presentations in GEOG 3450. The results for *Written English*: 5 Competent, 3 "Area of Strength", and 1 "Needs Improvement." "Competent" was a grade of "B-" or above for a suite of written assignments across several courses. In *Research Skills* and *Social Science Methods*, all 9 students were seen as either "Competent" or showed their abilities to be an Area of Strength. In *Technical Skills*, 4 students were viewed as "Competent" (Grade of "B" or "B+") and 5 demonstrated it as an Area of Strength (grade of "A" or "A-"). Clearly, our Geography students are extremely comfortable with the technical demands of their major, which may be a result of some form of self-selection.

Data from the Individual Assessment Grids for the Environmental Studies program are less complete than for Geography because often the required Internship is performed over the summer or in some cases the following fall, after the student has completed all other course work for the degree. The sample size for students who had completed the *entire* Environmental Studies

program (including the Internship), therefore, is 8. As with the Geography programs, “Competent” in *Spoken English, Written English, Research Skills and Social Science* or *Science Methods* was determined to be a grade of “B-” or above. For Technical Skills, “Competent” was determined to be an average grade of “B.”

Results from the first group of Environmental Studies majors to be assessed in this fashion were gratifying. All 8 of the students at least met the respective thresholds for competency in the five performance areas; 3 of the eight could, upon completion the BA program, claim all five performance areas as an “Area of Strength.”

Faculty members participating in the assessment process learned much from the first-year pilot with the Assessment Grids. With markers now established, standards for subsequent annual assessments will be more consistently applied; they may even be raised.

The department reports information gleaned from use of the assessment instruments identified above. One conclusion was that majors required more exposure to quantitative methods, and to address this issue the department created ENVT 3400, Environmental Resource Analysis as a requirement for ENVT major and a recommended course for GEOG majors. Another conclusion was that students’ research experience should be enhanced and a research project has been incorporated into the senior capstone course for the undergraduate majors.

#### Section IV – Institutional and Instructional Data

The Department of Geography and Environmental Studies included performance data from 1998 – 2002 in its self study (dated May 2004); additional data from Fall Quarters 2004 and 2005 as reported on the CSUEB Institutional Research and Assessment webpage were consulted in preparation of this report. Those data are outside the timeline of the review however support claims by the department of enrollment growth..

*Majors.* The number of undergraduate majors dropped significantly from Fall Quarter 1998 to fall Quarter 1999. The department attributes this to three interrelated factors: 1) market forces in the Bay Area, particularly for environmental studies majors; 2) structural changes in the General education program that prevented the department from recruiting majors in through its historical process of introductory courses; and 3) the rapid expansion of digital electronics arts on the CSUEB campus which drew incoming students away from this and other majors.

Data for 2004 and 2005 reveal 54 and 55 majors, respectively, which represents a slow but steady increase.

*Program data.* Both the Geography and the Environmental Studies programs maintained Total FTES throughout the report period and in 2004 and 2005, however individual variation was present. Both programs showed a decrease in lower division FTES and SFR, possibly due to reasons previously noted. Both programs showed stable number of course offerings. Geography showed stable average section size while Environmental Studies showed a decrease in average section size of undergraduate courses. Geography showed an enrollment decline in lower division and undergraduate courses while enrollment in Environmental Studies was stable.

Program data extracted from CSUEB Institutional Research and Assessment added to data presented by the department in the Self-Study indicate a slow but steady increase in number of majors and degrees awarded in the presence of a stable number of courses and sections offered. SFR is increasing slightly. These data suggest the department is on the path to attaining one of its stated goals, which is to return to the status of having 100+ majors.

#### Section V – Comparison to Other Geography and Environmental Studies Programs

The department compared itself to Geography and Environmental Studies Departments in the California State University system, the University of California system and institutions outside California. Three geography programs in the state of California and nine departments with both geography and environmental studies programs within and outside California were used as comparators. The comparison noted the degree programs offered at each university, the faculty composition, degree requirements, course offerings, course requirements in selected courses, and program specialties, such as the number of educational options. Examination of the data from the CSUEB Department of Geography and Environmental Studies and these programs revealed that the CSUEB program is reflective of the prevailing wisdom and practices with respect to the depth and range of interdisciplinary and interdepartmental programs. The CSUEB department is one of the smallest departments in terms of full time, tenure track faculty, however it ranks significantly higher than other departments in the ratio of curricular specialties (such as Biogeography) to number of full time faculty. Supporting data appear in the Self Study - Section 1.5 and Appendices H and I.

#### Section VI – Achievements in the Five Year Period 1997 - 2002

The department enumerated its achievements in several areas. Two notable areas are curriculum revision and course creation. Under the leadership of Dr. Garbesi the department revamped the Environmental Studies curriculum. They have initiated revision to the Geography curriculum. Several new courses have been proposed, many in response to student requests. For example, Dr. Li created a course in Geographical Information Systems and Dr. Lee proposed a course in Water Resources and Management.

In addition, individual faculty have distinguished themselves and, in turn, the department in many ways. For example, Dr. Garbesi received a Switzer Leadership Grant, Dr. Li received several grants examining water resources in the Bay Area, and Dr. Stine received several grants for research and equipment. Each member of the department has published and presented numerous professional projects. This is notable for the department in light of its heavy teaching load and administrative reassignments. In particular, Chair Larsen has shepherded several physical plant reorganization projects, served as a reviewer for professional publications, presented several papers during the time he served as Interim Dean of CLASS and in his role as chair. Each faculty member has also served the College and University in committee assignments. The faculty are to be commended for their dedication to high quality teaching, consistent scholarly efforts, and service to the profession and the university.

#### Section VII – Units Required for Graduation

In 2003 (outside the period of review but within the timeframe of the current document) the department approved a change to 180 units required for graduation from the previous 186.

### Summary

The department has painted a picture of itself as sustaining quality and variety in its educational programs, participating in university governance, developing a sense of community for its students, and maintaining a rigorous research agenda. It has overcome several factors that worked against its previous practice of recruiting students to the major through introductory courses and enrollment is on an increase. The faculty "...lead by force of example..." as is evident in the Self Study.

- **Summary of supporting data**

Several documents reporting data were appended to the self-study: Previous program review and response; Tenure track position announcement; Outcomes assessment; Institutional Research Data; Degree requirements for other CSU environmental programs; Faculty achievements for the review period; Annual enrollment; Geography programs at CSU and UC campuses; Program specialties not copied by the Association of American Geographers and program specialties for CSUEB versus non-California campuses; Minor capitol outlay project; and Positions held by Geography and Environmental Studies alumni.. These documents show the following trends:

#### Performance Review Statistics

1. initial decline in number of undergraduate majors that is gradually reversing itself; stable number of graduate majors
2. stable number of courses and sections taught; increase in variety of courses
3. relatively stable FTES and FTEF; decline in SFR possibly due to decline in undergraduate majors
4. diverse student population

#### Degrees Conferred

5. a decrease in undergraduate degrees awarded in Environmental Studies and stable number of undergraduate and graduate degrees awarded in Geography

#### Headcount

6. majority of majors from Alameda and Contra Costa counties
7. more junior and senior majors than freshmen and sophomore majors
8. majority of majors are continuing students

#### Overall Degrees Conferred

9. data on ethnicity, gender and geographic origin support the claim of a diverse student body

### **3. OUTSIDE REVIEWER'S COMMENTS & THE DEPARTMENT'S RESPONSE**

The program review visitation took place on May 18, 20 and 24, 2004. The reviewer was Dr. Paul F. Starrs, University of Nevada, Reno. The reviewer spent two days on campus, meeting

with permanent and part-time faculty, the department chair, the Dean of the College of Letters, Arts and Social Sciences, the administrative coordinator, undergraduate and graduate students, and faculty in three departments that are allied with the Department of Geography and Environmental Studies. The summary of Dr. Starr's comments is arranged in order of his mention and under his headings.

#### Summary of Dr. Starrs' comments

*Resource scarcity.* Dr. Starrs praised the faculty for their energy and creativity in adapting to changing physical circumstances. He noted that faculty and student satisfaction with the department is clearly positive. However, he also noted that the department has, "...made do for some time." and is "...starved for resources..."

*Overload and tripped circuits.* It was Dr. Starrs' opinion that the department should have, "...demonstrably at least one and possibly several" new tenure track positions to manage the advising, classroom, field-based teaching, internship, research, and committee efforts. He particularly noted the commendable internship and field-based experiences CSUEB offers, which are equaled only by a few of the best private and public universities.

*A troubling cluster.* Dr. Starrs confirmed a conclusion in the department's self study regarding the effect of General Education cluster courses on the number of majors in the department and recommended adding a range of geography and environmental studies courses back into the General Education requirement.

*Veteran Latin Americanist.* Dr. Starrs notes that a tenure track position to replace Dr. Eder is essential to the department considering the implications for the Bay Area of Latin America.

*A superfluity of courses.* While commending the variety of courses and degrees offered, Dr. Starrs opined that sustaining such a variety with the current faculty is difficult. He suggested possibly reducing the number of courses, increasing tenure track positions and/or and consolidating programs.

*Continuing leadership development.* Dr. Starrs noted that developing administrative leadership for the department for the future would be wise and that potential replacements for Dr. Larson, when he elects to step down as chair, should be identified.

*Drawing graduate students.* Expanding the graduate program in geography is desirable as noted by the faculty and Dr. Starrs. Given the academic competition in the Bay Area, enhanced recruiting for graduate students should be considered.

*A weak web.* Consistent with the acknowledgement in the department Self Study, the department webpage does not currently reflect the breadth and depth of academic and scholarly life at CSUEB. In part this is a workload issue, which should improve with the addition of new faculty.

*Space and time.* Dr. Starrs noted the distinct disadvantage of having the department offices and computer labs on the opposite ends of campus and suggested their reunification.

*A changing grad vision.* Dr. Starrs' report noted the value of a solid graduate program to the department and to faculty, and supported expanding the reach and applicability of graduate courses. For example, cross listing courses in departments such as Public Administration would perhaps draw additional students.

*Overall substance.* Dr. Starrs characterized the department as one that, "...takes its mission seriously..." In the 1970's and 1980's geography departments in California universities addressed the expanding role of the topic in various manners such as increasing faculty size. The department at CSUEB took a different path by broadening the curriculum to include a program on managing ecological and cultural environment and created the Environmental Studies program. That decision has served the department well in terms of evolution into a 21<sup>st</sup> century program. Dr. Starrs concluded this section by noting that the department is, "...well-able to adapt to new opportunities within the university...should be allowed to continue to pursue its mission...and will continue to be valuable to CSUEB students." He supported allocation of new resources, requests for which were small, to the "...vigorous, prize-winning and innovative faculty."

Dr. Starrs concluded his report with 26 recommendations in the area of faculty enhancement (including course recommendations), the graduate program, students and records, and space and equipment.

### Response of the Department

The department acknowledged Dr. Starrs' comments and broadly agreed with his conclusions. Several recommendations under the four goal areas were brought to the front and actions on those recommendations taken since production of the report were highlighted. For example, Dr. Starrs recommended forging ahead with securing equipment needs. The department received a budget augmentation in 2005 and purchased six GPS units for use in applied field study courses. The one recommendation with which the department was not in complete agreement was hiring a Latin American specialist for the next tenure track position. While the department agrees that it is time for an additional position, it is not clear on the exact nature of the position to be advertised

## **4. PROGRAM'S FIVE-YEAR STRATEGIC PLAN (2005 - 2009)**

### Curriculum

The department acknowledged that the primary task for the coming five years in the area of curriculum is revamping the three programs. Work has begun on this initiative and is expected to be completed by the end of the 2005-2006 AY. The first phase of redesign of the Environmental Studies program was completed in Spring Quarter 2005 and modified the upper and lower division core. The second phase, retooling the five Options, will commence in Winter Quarter 2005, as will revamping the undergraduate geography program. The department is also

considering attaching the word “Environment” to the title of its M.A. program to better reflect the nature of the program.

### Students

The department expects that its enrollment will increase in the next five years, primarily as a result of the acceptance into the General Education program of several lower division courses in both Geography and Environmental Studies. The faculty have also embarked on a concentrated efforts to raise the visibility of the department in the region’s community colleges in an attempt to entice transfer students. It has also begun an aggressive marketing program to high school seniors. The faculty hope to increase enrollment and the number of majors through its self-titled effort – “recruiting by force of example”.

Tasks to accomplish these efforts, such as preparing a guide describing the societal value of geography, have been identified and a lead faculty member assigned to each task. The department also plans to offer additional courses at the Concord campus, to manage the timing of course offerings, and to institute several activities to improve services to students (i.e. tracking student performance). An important goal area for the coming review period will be to strengthen the graduate program through recruitment, grant support or students, and curriculum modification. This effort will be lead by Dr. Woo, the Graduate Advisor.

### Faculty

The department envisions a stable faculty for at least the next five years, predicting no separations or retirements. However, at least one faculty member is typically away from campus activities each quarter on research or other activities. The faculty agree that given its academic and teaching pursuits and anticipated expansions, the time has come for it to request an additional tenure track position and will do so in 2006-2007. This request is well-supported by enrollment trends, faculty activity, and student needs.

### Resources

The department identified physical space and equipment issues as important goal areas for the next review period. The department is in the unenviable position of having its physical space in two distant campus buildings and has identified goals to seek to reunite these components. Part of this process is to include upgrading equipment for cartography, remote sensing, computing, and global positioning for use on campus and in field coursework.

## **5. CAPR ANALYSIS OF THE PROGRAM’S FIVE-YEAR REVIEW**

### a. Program

The Department of Geography and Environmental Studies conducted a thorough and balanced self-review. The data and documentation included in the review package clearly supported the claims and conclusions of the department and outside reviewer. The curriculum appears to be sound, with a clear direction for future growth. Student enrollment is growing following a decline that tracks with limited access to lower division courses in the General Education clusters. Enrollment growth and number of majors are predicted to continue throughout the next review period. The department has plans to offer additional courses at the

Concord campus. It has revised its mission statement, and identified student-learning outcomes and a detailed assessment process.

The department has ambitious plans for enhancing existing programs and expanding its graduate program. In the context of revising curriculum it is determining the direction of the tenure track request it will make in 2006-2007.

The Department of Geography and Environmental Studies is to be exuberantly commended for the assessment activities it completed in the past year. The department has made an excellent beginning to the assessment process. CAPR has several recommendations for the department for continued assessment activities that should be addressed in the next review.

1) Outcome Indicators for undergraduate and graduate students include portfolios, yet there is no objective measurement of the goals or quality of the portfolios. The department should develop a rubric for each Outcome to evaluate the associated portfolio projects and demonstrate student learning for the respective outcome. Creation of a portfolio is the evidence of a student's learning; the rubric is an evaluation of the quality of that evidence.

2) Primary and direct outcome data to show the distribution of student performance on the Outcome rubrics should be included.

3) Formative assessment activities used as Outcome Indicators are not supported by data from clearly identified direct measurements of student learning outcomes. The department should review its Outcome Indicators and determine a method of direct measurement for each indicator. Data from these measurements should be collected over the coming years.

4) The department identified some trends in its limited assessment data. It is encouraged to examine future data for trends in parallel outcomes in the undergraduate or graduate programs in order to support potential instructional changes.

5) The department indicated that it has current collaborations with other departments and has plans for future collaboration. CAPR recommends that the department continue to forge alliances with other departments to increase enrollment.

b. Resources

The faculty have been vigorous and excellent stewards of the department resources. As a result they have maintained FTES and a quality academic program despite declining number of majors and gradual erosion of the presence of state of the art technological equipment. The department has begun to acquire new equipment and should be supported in acquiring additional technology to make it competitive with comparable programs in California and other states. Of primary importance in this effort is reunification of its physical space.

## **6. CAPR RECOMMENDATION FOR CONTINUATION OF THE PROGRAM**

CAPR recommends the continuation of the B.S. in Geography, the B.A. in Environmental Studies and the M.A. in Geography without modification.

## **DATE OF THE PROGRAM'S NEXT FIVE-YEAR REVIEW**

2007-2008