

**PROGRAM PERFORMANCE REVIEW
MS in Environmental Studies Program
California State University, Fullerton**

**Self Study
2017**

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Introduction

The MS in Environmental Studies program was founded by a group of dedicated faculty from across campus in the early 1970s. It differs from most graduate programs at CSUF in that it is not housed in a department, but rather is a joint degree program housed in the College of Humanities and Social Sciences but governed by a program Council made up of representatives from departments in five different colleges. This unusual structure means that the program has no undergraduate degree, minor, or certificate to provide a faculty with primary responsibility to the program or to bolster its budget. The administrative and advising work of the program is provided by a program coordinator and an academic advisor both of whom are currently tenured faculty members. The coordinator and advisor receive one course equivalent of assigned time per semester each. This academic year the College Dean has also included a stipend for the coordinator equivalent to those received by chairs of small departments. In addition to the faculty who formally serve on the program Council, a dedicated group of affiliated faculty members teach in the program, serve as mentors to students, attend program meetings, and serve on committees (curriculum and personnel). A majority of the classes in the program are taught by part time faculty, many of whom are environmental professionals who bring important practical experience to their teaching role. Over the years, there have been concerns that as the dedicated faculty members from one generation retire, no one new will take their place. This has not been the case, as several new generations of faculty at CSUF have participated in various ways in the program. That said, the reliance on the program coordinator and advisor who do most of the work that would be done by more faculty members in a department, means that there is an inherent instability in the program and that the continuity of community partnerships, student advising, and assessment plans has been a problem. More of that will come out in the details below.

Since the last program performance review, student demographics in the program have undergone a significant change. According to figures produced by the HSS Dean's office the proportion of women in the program has remained between 40 and 60%, but the percentage of students who are from underrepresented minority groups has grown from 15% to 45% during the fall 2012 to fall 2016 period. Similarly, the proportion of students who are among the first generation in their family to graduate from college has increased from 31 to 51%. It is unclear how these changes are likely to impact the program in the future, but it does indicate that a very diverse student body is interested in pursuing careers in environmental studies and that the program will need to assess how best to serve these students and foster their career and academic success. The total number of students enrolled in the program has fallen from a high of 69 in the fall of 2013 to a low of 47 in the fall of 2015. In fall 2016 there were 51 students enrolled in the program. These enrollment numbers place the program in the

mid-range for graduate enrollments in the College of Humanities and Social Sciences. In terms of changes in the number of students enrolled between 2012 and 2016, Environmental Studies is doing well. During this period only three graduate programs in the College gained enrollment (out of 15 total programs), while some lost over 50%. At a 17.7% loss in enrollment we are close to the college average of 16.6%. Given the lack of faculty resources and the kind of connection that a departmental faculty provides, I would read this as a positive development. That said, we do plan to expand our recruitment efforts in the coming years.

Thinking about the state of the program holistically, one is struck by both its enormous potential, the substantial ways in which that potential is unlikely to be fully realized given resources and structural constraints, and an impression that it continues to thrive in spite of various challenges.

I. Department/Program Mission, Goals and Environment

- A. Briefly describe the mission and goals of the unit and identify any changes since the last program review. Review the goals in relation to the university mission, goals and strategies.

The Environmental Studies program's mission is to provide a transdisciplinary perspective on Environmental Studies at an advanced level. Students have access to faculty expertise in the natural sciences, engineering, social and behavioral sciences, business and economics, the arts, and humanities. The Master of Science degree in Environmental Studies is an important qualification for environmental professionals, and signifies the skills to independently conduct and supervise environmental research and environmental impact assessment. This program will also allow graduates the ability to continue in academics, pursuing doctoral degrees. Still others are educators at the K-12 or community college level.

The goals of the program have not changed substantially since the last Program Performance Review in 2007-2008. We continue to produce environmental professionals in fields that include planning and regulation, environmental research, environmental impact, and education. While attempts have been made to revise our curriculum in order to better serve students with varied backgrounds and professional goals, structural limitations have made implementing those changes a substantial challenge.

The goals of the program align well with the overall goals of the university. We promote the preeminence of learning through our diverse faculty and the collaborations between students and faculty inside and outside of the classroom. The program continues to meet the needs of our community—locally, regionally, and nationally—through the training of Environmental

professionals. Our faculty includes not only tenured CSUF faculty but also local professionals in the fields of Environmental Planning, Sustainability, and Environmental Impact and Compliance, ensuring that the curriculum meets community needs and that the program serves the community.

- B. Briefly describe changes and trends in the discipline and the response of the unit to such changes. Identify if there have been external factors that impact the program. (Community/regional needs, placement, and graduate/professional school).

Since the time of the last review, trained professionals in the environmental sciences and environmental planning and education have been in high demand. However, the economic downturn led to hiring freezes and layoffs in many public agencies, and a general stagnation of the economy made obtaining employment more difficult, even for environmental professionals. Graduate applications and enrollments dropped in the wake of the last economic downturn and have since started to rebound. The Bureau of Labor Statistics predicts that demand for Environmental Scientists and Specialists will continue to be strong, 10% above the expected job growth across the economy (<https://www.bls.gov/ooh/life-physical-and-social-science/environmental-scientists-and-specialists.htm#tab-1>). Still, the program finds itself with 17.7% fewer students than in the fall of 2012. It is unclear how governmental politics at the national level may impact our graduates, but it seems that California will continue to experience growth in the environmental and sustainability fields with a projected growth rate of 25% by 2024 (<http://www.projectionscentral.com/Projections/LongTerm>).

- C. Identify the unit's priorities for the future.

The program's priorities for the future include strengthening our relationships with the departments and faculty on campus that work with our students. One way we hope to do this is through better coordination of class offerings and finding ways to allow tenured and tenure-track faculty to teach in the program. This is a time-consuming process for the program coordinator as it involves meeting with chairs and faculty from five colleges, developing trust and goodwill in an often competitive university environment, and developing systems for tracking course offerings, programs, and opportunities.

Another priority is to strengthen the program's relationship to alumni and local and regional employers. Career night talks, visits to potential employers, and additional stronger ongoing internship relationships are all part of the plan for that priority.

Revisiting the curriculum and the structure of the program is also a priority. This stems in part from internal program goals and in part from the university's initiatives to stabilize program course offerings through multi-year planning. Like the first priority, this, too is time consuming work. In the absence of faculty with formal commitments to the program beyond the advisor and coordinator, this work falls to the coordinator. Affiliated faculty members demonstrate their commitment to the program primarily through the project supervision and student mentoring they provide. Their service is mostly carried out through their home departments. This is an ongoing issue for the program, and has featured in every PPR self-study that the program has produced. Affiliated faculty members are very willing to review policies and procedures, to offer sage advice on many issues, and to serve on committees such as personnel and curriculum. They are less able to provide the kinds of ongoing commitment required to create and maintain career advancement and development programs, internships, and other programs.

One final priority is to reinvigorate the Environmental Studies Student Association. Since most students attend the program part time and have substantial work and home commitments, having a vigorous and active student association requires faculty involvement. That said, once the organization becomes active it could provide more of a sense of community among students who do much of their academic work individually and outside of the ENST program, and provide a venue for ongoing collaborations between the community and the program.

D. If there are programs offered in a Special Session self-support mode, describe how these programs are included in the mission, goals and priorities of the department/program (e.g. new student groups regionally, nationally, internationally, new delivery modes, etc).

The program often offers two courses (ENST 595T) in summer session. This is done to allow our working professional students to enroll year round. It also allows some faculty who could not otherwise teach in the program to do so during the summer.

II. Department/Program Description and Analysis

A. Identify substantial curricular changes in existing programs, new programs (degrees, majors, minors) developed since the last program review. Have any programs been discontinued?

The main change to our curriculum since the last PPR is the development of ENST/CHEM 492 Sustainability Projects. The course was developed by John Bock (ANTH) and Scott Hewitt (CHEM) with a grant through a call from the Chancellor's Office. This is the first undergraduate course offered by the program. It serves the

department of Chemistry as a capstone course for undergraduates, and provides an opportunity for MS ENST students to work on interdisciplinary teams to identify and solve local sustainability issues. It also provides the program with some exposure to undergraduates who might later be interested in pursuing the MS degree.

A substantial revision of the Program curriculum was undertaken after the last PPR. However, a subsequent dip in enrollment prevented the implementation of this revision. Moving forward the program plans to revisit this revision and evaluate whether it can be implemented in the future. The guiding principle was to strengthen the program's training for students in the field of quantitative methods (through the development of ENST 530 Environmental Statistics which was offered in Fall 2016) and a capstone seminar (ENST 540 Professional Practice in Environmental Studies) that would bring together students in the policy, education, and planning area of ENST with those who focus upon environmental science and technology to jointly study current norms and methods for professional communication with a variety of audiences. Lower enrollments and changes in program leadership have thus far prevented the implementation of this change.

The program hopes to work with departments across the campus on the design and implementation of a Minor in Sustainability Studies that is being sponsored by the Chancellor's office. ENST/CHEM 492 is the model for capstone courses in this system-wide minor development effort.

The final curricular change since the last PPR is the institution of a Comprehensive Exam option. At the time of the last PPR all students were required to finish either a Master's Project or Thesis. This presented at least two challenges for the program. The first was finding enough faculty members to work with students. Since the Program does not have full time faculty with a formal commitment to the program (aside from the coordinator and graduate advisor, who each receive one course of assigned time per semester) finding faculty advisors for large numbers of research projects was difficult. The program coordinator and a few faculty members were often advising large numbers of projects, a burden for both students and faculty. In addition, many of our students are already professionals who are seeking to increase their level of skill and expertise in the field but who do not necessarily need to carry out an independent research project to meet their academic and career goals. The comprehensive exam option allows such students to demonstrate the skills and knowledge they have gained through the program without burdening either faculty or students with research projects that do not really serve either students or faculty.

- B. Describe the structure of the degree program (e.g. identify required courses, how many units of electives) and identify the logic underlying the organization of the requirements.

The MS in Environmental Studies is a thirty-six (36) unit program. Individual study plans allow students to customize the program to meet their individual academic and professional goals.

Three courses are required for all MS ENST students:

ENST 500 Environmental Issues and Approaches
ENST 510 Environmental Evaluation and Protection
ENST 520 Environmental Research and Analysis

These courses seek to provide the students with a common understanding of the transdisciplinary field of Environmental Studies, familiarity with environmental laws and regulations, and a set of tools for environmental research and analysis. This is especially important as MS ENST students come to the program with very different undergraduate and workplace experiences. These core courses ensure that every student has knowledge and skills in these core competency areas for environmental professionals.

One planning course is also required. Students have several options for this:

- ENST 595T Environmental Planning
- ENST 595T Environmental Impact Assessment
- GEOG/POSC 478 Urban Planning Principles
- GEOG/POSC 484 Urban Planning Methods
- GEOG 488 Land Use Analysis

The rest of the course of study for each student consists of elective courses in the ENST program (ENST 595T Selected Topics in Environmental Problems, ENST 530 Environmental Statistics, ENST/CHEM 492 Sustainability Projects) and cross-disciplinary electives in one or more fields related to the student's specific academic and career goals. A minimum of nine units of each type of elective must be taken. This ensures that students receive both disciplinary training in Environmental Studies and advanced training in associated disciplines and/or skills. These electives make up 21-24 units of the program.

There are three choices for fulfilling the culminating experience requirement.
ENST 597 Project (3 units)
ENST 598 Thesis (3 units)
Comprehensive Exam (no units)

The Project has historically been the most popular choice for MS ENST students. In ENST 597 students work with an individual faculty member to design and carry out an independent research project. A few students choose to do a thesis, which requires a committee of three faculty members to supervise an independent research project. Students typically choose this option if they plan

to go on to a PhD program, or if their research project intersects with the interests of a group of faculty members. The comprehensive exam is a relatively new option, having been approved by the program council in 2013. Students choose this option after consultation with faculty advisors when a research project is deemed to be unnecessary to meet the student's academic or career goals.

- C. Using data provided by the office of Analytic Studies/Institutional Research discuss student demand for the unit's offerings; discuss topics such as over enrollment, under enrollment, (applications, admissions and enrollments) retention, (native and transfer) graduation rates for majors, and time to degree. (See instructions, Appendix I)

Date from the office of Analytic Studies/Institutional Research reveals a fairly strong overall demand for the MS in ENST. The number of applicants fell after 2012 and has been climbing once again. The program strengthened its prerequisite and GPA requirements that may account for the relative large number of students admitted from those who applied. The greatest drop off in the number of applications was in 2014-2015 when only 17 were admitted and 14 enrolled. In 2015-2016 more students were admitted, although a slightly lower proportion enrolled (31 admitted, 23 enrolled). It may be that instability in program leadership played a role in the low number of applications and admissions in the recent past. Prospective students frequently meet with the coordinator and advisor during the application process, and emails and phone calls are numerous and take a lot of time and energy to field.

Graduate enrollment has declined somewhat since 2011-2012. I am not sure how to account for this, although larger economic forces may be playing a part. As mentioned above, most masters programs in the college of Humanities and Social Sciences have experienced decreased enrollments over the same period.

Enrollment numbers reflect the fact that most students in the program are employed full time while working towards their degree. Full time equivalent students (FTES) has remained fairly steady at .5 to .6 per headcount. In other words, students attend the program part time. This is also supported by the evidence of graduation rates. Between 2008 and 2012 five-year graduation rates were generally in the 70-79% range (with one low year at 53% and a high of 82%), while two-year graduation rates rose from 9% in 2008 to 50% in 2012. Again, it is possible that stability in program leadership plays a role here. In years when an experienced coordinator and advisor are present, applications and graduation rates seem to be higher than in years when leadership has changed or is unstable. Because this program relies largely on collegial relationships between faculty from across campus and the personal initiative of

the program coordinator and advisor, stability in staffing those positions remains a key ingredient in the success of the program.

Over the past year, the program coordinator and graduate advisor have been working to create better systems for tracking students through the program and advising them in a systematic way. The graduate advisor has been especially active in locating students who nearly completed the degree and disappeared, and then guiding them through to completion of their degree.

D. Discuss the unit's enrollment trends since the last program review, based on enrollment targets (FTES), faculty allocation, and student faculty ratios. For graduate programs, comment on whether there is sufficient enrollment to constitute a community of scholars to conduct the program. (See instructions, Appendix II)

The MS in ENST is an unusual program at CSUF in that it is a joint degree program involving faculty from five colleges that has no undergraduate major and thus no full time tenured or tenure-track faculty. This does mean that full time equivalent faculty (FTEF) allocations need to be fairly high compared to the number of full time equivalent students (FTES) in order to maintain the integrity of the program. Efforts to increase the presence of the program in the undergraduate curriculum have met with substantial resistance from departments that see the expansion of the program in that direction as a threat. Given that these departments are also involved in the program as part of its governing structure, there is probably little that can be done to pay for the MS in ENST through undergraduate enrollment—the usual formula for underwriting expensive graduate training. That said, the program remains healthy, comes close to meeting target, and continues to attract and graduate students.

E. Describe any plans for curricular changes in the short (three-year) and long (seven-year) term, such as expansions, contractions or discontinuances. Relate these plans to the priorities described above in section I. C.

In the short term, the program plans to revisit the curricular changes that were planned after the last review but not fully implemented. We plan to look at the core curriculum and the electives to ensure that we are serving the students as well as possible. In particular, we plan to create a more stable course rotation to ensure that students with various career and academic goals will be able to plan their studies in the most predictable manner possible.

In the longer term, the program would like to work with the departments that support it to plan curriculum so that resources are maximized. For example, looking at the cross-disciplinary electives to see how offerings and demand can

be better coordinated. If CSUF is able to offer the minor in Sustainability studies, the program would like to play a role in that, perhaps as an administrative home. It is possible that a graduate level certificate could be developed as well.

F. Include information on any Special Sessions self-support programs offered by the department/program.

NONE

III. Documentation of Student Academic Achievement and Assessment of Student Learning Outcomes

A. Describe the department/program assessment plan (e.g. general approach, time table, etc.) and structure (e.g. committee, coordinator, etc.), and if applicable, how the plan and/or structure have changed since the last PPR.

At the time of the last PPR the program did not have an assessment plan. In 2012 the program coordinator wrote and received a grant to support the development of program learning goals and assessment. That assessment plan was created and ran for a year or two. A change in program leadership interrupted that assessment plan. Since then the program coordinator and advisor have been working to implement a streamlined assessment plan new program outcomes and goals that can be assessed directly and indirectly, and reported and tracked in the university wide assessment tool Compliance Assist.

B. For each degree program, provide the student learning outcomes (SLOs); describe the methods, direct or indirect, used to measure student learning; and summarize the assessment results of the SLOs.

The following is the latest version of the program's goals and outcomes:

Theories and Methods of Environmental Studies

- Students will demonstrate their ability to analyze environmental issues through social, economic, and ecological lenses

Analytical and Research Skills

- Students will demonstrate their ability to apply quantitative and qualitative methods as appropriate to environmental research

Communication and Research

- Students will demonstrate their ability to utilize information resources and technology to organize and evaluate environmental research

Name	Description	Methods of Assessment	Criteria of success	Instruments Used (must be chosen from a drop-down menu)	University Learning Goals Alignment
Grad SLO 1: Theories and Methods of Environmental Studies	Students will demonstrate their ability to analyze environmental issues through social, economic, and ecological lenses	Direct assessment by applying a rubric to essays written in response to Question 1-2 on the MS Comp Exam or a student's project or thesis.	Direct: SLO 1 is adequately achieved if 75% of student essays reviewed are rated "pass" or "high pass."	Capstone project, other	Intellectual literacy
Grad SLO 2: Analytical and Research Skills	Students will demonstrate their ability to apply quantitative and qualitative methods as appropriate to environmental research	Direct assessment by applying a rubric to essays written in response to Question 5 on the MS Comp Exam or a student's thesis.	Direct: SLO 2 is adequately achieved if 75% of student essays reviewed are rated "pass" or "high pass."	Capstone project, other	Critical thinking
Grad SLO 3: Research and Communication	Students will demonstrate their ability to utilize information resources and technology to organize and evaluate environmental research.	Direct assessment by applying a rubric to essays written in ENST 500.	Direct: SLO 3 is adequately achieved if 75% of student essays reviewed are rated "acceptable" or "outstanding."	Research essay	Communication and Critical thinking

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This year we began with the first assessment cycle by assessing Program Goal One through the answers to the first two questions on the comprehensive exam.

We are still working on the indirect assessment part of the plan and should have that in place next year.

The goal is to create a streamlined process that will be sustainable through changes in the program leadership.

- C. Describe whether and how assessment results have been used to improve teaching and learning practices, and/or overall departmental effectiveness. Please cite specific examples.

Given that we are starting the whole process of creating an assessment program over again and have not completed a cycle we have not made any changes to the program based upon assessment.

- D. Describe other quality indicators identified by the department/program as evidence of effectiveness/success other than student learning outcomes (e.g. graduation rate, number of students attending graduate or professional school, job placement rates, etc.).

The completion rate for the degree is one indicator of the program's success. Another indicator would be job placement rates. We do not have hard data for this second indicator. Anecdotal evidence suggests that many of our students already work in their chosen field, and many get jobs, often through internships completed during the program. This is one reason that we wish to strengthen our connections to alumni. We also plan to institute an exit questionnaire to help us gather better data on our graduates' career and future educational success.

- E. Many department/programs are offering courses and programs via technology (e.g. on-line, etc.) or at off campus sites and in compressed schedules. How is student learning assessed in these formats/modalities?

Some sections of ENST 595T are offered online, as are some cross-disciplinary electives. Student learning is assessed within these courses through the usual means of exams and assignments. At the program level, both online and in person learning are covered by the overall assessment plan.

IV. Faculty

- A. Describe changes since the last program review in the full-time equivalent faculty (FTEF) allocated to the department or program. Include information

on tenured and tenure track faculty lines (e.g. new hires, retirements, FERP's, resignations, and how these changes may have affected the program/department's academic offerings. Describe tenure density in the program/department and the distribution among academic rank (assistant, associate, professor) (See instructions, Appendix IV) (Attach faculty vitae see Appendix VII).

Between 2011 and 2016 the full time equivalent faculty allocation has grown from .8 to 1.0. The number of lecturers employed part time has increased from 4-6. The only full time faculty with formal commitments to the program are the coordinator and the graduate advisor who each receive 3 WTUs of assigned time per semester (that is, release from teaching one course) in exchange for their advising and administrative duties in the program. One of the main long-term goals of the program has been to increase the number of full time faculty teaching in it. In the 2016-2017 academic year full time, tenured faculty taught 5 sections in the program (2 sections of ENST 500, ENST 530 Environmental Statistics, and ENST 595T Environmental Photography, ENST/CHEM 492). In the coming year we hope to expand that with perhaps one or two additional sections (including ENST 520) being taught by full time faculty. The absence of full time faculty from teaching in the program is not necessarily a liability--several regularly scheduled courses are taught by very experienced and well- connected environmental professionals who have helped many students get full time jobs upon completing their degree and who also bring valuable workplace experience to their courses (ENST 595T Environmental Planning and three other ENST 595T classes developed and taught by the same instructor on a regular rotating basis).

- B. Describe priorities for additional faculty hires. Explain how these priorities and future hiring plans relate to relevant changes in the discipline, the career objectives of students, the planning of the university, and regional, national or global developments.

We plan to strengthen our pool of part time faculty and continue to work towards getting more full time faculty teaching in the program.

- C. Describe the role of full-time or part time faculty and student assistants in the program/department's curriculum and academic offerings. Indicate the number and percentage of courses taught by part-time faculty and student teaching assistants. Identify any parts of the curriculum that are the responsibility of part-time faculty or teaching assistants.

Full time faculty members teach for ENST dependent upon their commitments to their home departments. This means that some courses can only be taught by part time faculty or during summer session (which is self-supported). An example of this is the program curriculum for 2016-2017:

ENST/CHEM 492 John Bock (tenured in Anthropology)

ENST 500 (2 sections) Peter Fashing and Nga Nguyen (tenured in Anthropology)
ENST 510 Steven Kim (long-term part time lecturer)
ENST 520 Khadeeja Abdullah (new part time lecturer)

ENST 530 Sean Walker (Chair, Biology)

ENST 595T Planning—Frank Haselton (long-term part time lecturer)
ENST 595T Wetlands—Tony Bomkamp (long-term part time lecturer)
ENST 595T Sustaining Southern California—Antonia Graham (new part time lecturer)
ENST 595T Environmental Regulation (online)—Steve Kim (long-term part time lecturer)
ENST 595T Environmental Photography—Craig McConnell (tenured in Liberal Studies)
ENST 595T Endangered Habitats—Tony Bomkamp (long-term part time lecturer)

Planned summer 2017

ENST 595T Hazardous Waste Management—Sundershan Kurdwadkar (tenured in Environmental Engineering)
ENST 595T Environmental Hydrology—Mishra Phoolendra (tenured in Environmental Engineering)

Thus, in the state supported academic year, 5 sections were taught by full time faculty, and 7 by part time lecturers (i.e. 42% full time, 58% part time). In general, faculty from two participating colleges (HSS & HHD) are able, departmental schedules permitting, to teach in the program during the academic year. Faculty from the remaining three colleges, many of whom supervise substantial numbers of MS projects and theses, are generally not able to teach in the program except perhaps during the summer.

During the same year, 2016-2017, twelve students have enrolled in ENST 597 Project. Of those students, four are being advised by faculty from the college of Humanities and social sciences, seven from the college of natural sciences and mathematics. This proportion is probably average, with a couple of students working with faculty in health sciences, education or environmental engineering during an average year (one MS thesis and one project are being advised by faculty from Education this year).

D. Include information on instructor participation in Special Sessions self-support programs offered by the department/program.

During the summer 2016 full time faculty taught two courses, we plan to offer two in summer 2017. The summer 2017 courses are being taught by full time faculty in Environmental Engineering who would not be able to teach for the program during the academic year due to departmental workload issues.

V. Student Support and Advising

- A. Briefly describe how the department advises its majors, minors, and graduate students.

The program has a graduate advisor (tenured in Liberal Studies) who handles student advising. During their first year, all incoming students meet with the graduate advisor at least once, and she approves study plans and forwards them to the Office of Graduate Studies. She also handles all changes to study plans (and these can sometimes be numerous), and graduation checks. Prospective students also usually at least speak with the graduate advisor and/or the program coordinator during the application process. Students check in frequently to discuss finding advisors and internships (an average of 3-4 students pursue academic internships each semester) with the graduate advisor and/or the program coordinator. The academic advisor holds regular office hours that are reserved for ENST students in addition to her regular office hours open to all students.

The program coordinator and advisor also attend a variety of recruitment events throughout the year where prospective students are advised about the program, as well as New Student Orientations during intersession and summer, outside the regular teaching semester, and International Student Orientation. Workshops and Conferences related to Office of Grad Studies occur several times a year, as do university-wide meetings for Grad Advisors. The high number of international students who apply and later attend the program complicate workload and require additional time/effort and mentoring for advisor/coordinator. The Advisor/Coordinator are also involved in exit exam and project presentations twice per year.

The department website also has much useful information that can aid students in need of advising. A student handbook was developed and maintained in the past. This is in need of an update, an ongoing project that we expect will take two years.

- B. Describe opportunities for students to participate in departmental honors programs, undergraduate or graduate research, collaborative research with faculty, service learning, internships, etc. How are these opportunities supported? List the faculty and students participating in each type of activity and indicate plans for the future.

Most students continue to be actively engaged in collaborative research with faculty members. While Master's projects and theses are obvious places where collaboration between students and faculty occurs, ENST 492 Sustainability Projects, has also become a site of research collaboration between undergraduate and graduate students, faculty members, and the community.

Students also frequently take advantage of the opportunity to work on academic internships for credit while in the program. The program is often alerted to available internships through alumni who send announcements and encourage current students to intern at their workplaces (for example, CalTrans, the Palos Verdes Land Trust, and various environmental consulting firms).

John Bock, Anthropology, ENST 492, Center for Sustainability, and UAcree
 Sara Johnson, Anthropology, UAcree

Andrew Shensky, UAcree graduate student

Academic Internships (2016-2017):

Kelsey Hawkins
 Kimberley Gibson
 Kim Nguyen
 Andrew Shensky
 Joshua Sierra

Some students also pursued internships with the Forest Service and other agencies during the summer.

VI. Resources and Facilities

A. Itemize the state support and non-state resources received by the program/department during the last five years. (See instructions, Appendix V.)

Over the past seven years state support and non-state support resources have been as follows:

YEAR	10-11	11-12	12-13	13-14	14-15	15-16	FL16
FTES	22.5	26.1	19.8	23.3	19.4	23.5	24.2
O and E	5,638	5,638	4,166	4,166	4,166	4,000	4,005
MCF	1,265	1,000	1,000	250	750	750	3,00

OE allocations reduced due to budget cut.

B. Identify any special facilities/equipment used by the program/department such as laboratories, computers, large classrooms, or performance spaces. Identify changes over last five years and prioritize needs for the future.

The program uses one classroom (LH 304) and has shared office space for part time faculty.

The biggest change is the new reception, small meeting, and storage space in H424. This space was built by the HSS Dean's Office in order to give a more visible home to the two graduate programs that are not housed within an academic department—Environmental Studies and Gerontology. This semester the space is staffed by student assistants. The regular staff duties for ENST continue to be provided through shared staffing with Geography and Gerontology. It is not clear how or if H 424 will be staffed in the future.

- C. Describe the current library resources for the program/department, the priorities for acquisitions over the next five years and any specialized needs such as collections, databases etc.

Library resources have not been an issue for the program as the Pollack Library has access to a large assortment of academic journals that support the research and learning of students in the program.

VII. Long-term Plans

- A. Summarize the unit's long-term plan, including refining the definitions of the goals and strategies in terms of indicators of quality and measures of productivity. (See instructions, Appendix VI)

The program's long-term plan includes three points:

To use the information from assessment, exit questionnaires, and alumni surveys to keep our curriculum and advising current and useful

To strengthen connections to/with alumni and the community

To strengthen our collaboration and planning among departments, colleges, and research units on campus to provide high quality and meaningful education to our students

- B. Explain how long-term plan implements the University's mission, goals and strategies and the unit's goals.

This long-term plan implements several of the University's mission, goals, and strategies (<http://webcert.fullerton.edu/aboutcsuf/mission.asp>).

Using the information from assessment and exit questionnaires will allow the program to further the University's goal one--ensuring the preeminence of learning--through "using evidence to improve programs."

Building a stronger relationship with alumni and community partners furthers the university's second goal, "to provide high quality programs that meet the evolving needs of our students, community, and region." This will be accomplished through not only the maintenance of this professional program, but also through "learning from external communities through...internships."

The third part of our long-term plan aligns with the University's goal four, "To make collaboration integral to our activities." By its emphasis on inter-collegial and interdepartmental cooperation, the program is an example of the type of collaboration included in the University's strategies for achieving that goal.

- C. Explain what kinds of evidence will be used to measure the unit's results in pursuit of its goals, and how it will collect and analyze such evidence.

Evidence for the achievement of the first point in the plan will be our new assessment program and exit questionnaires administered to students as they complete the program (using an online survey such as Qualtrics). Once collected, this evidence will be analyzed and presented in annual assessment reports and program annual reports.

Evidence for the achievement of the second goal will be collected in alumni surveys, as well as data on enrollment in academic internships and service learning within ENST courses. Job placement data would also be useful here. This can be collected through the exit questionnaire and alumni surveys. These will be analyzed as part of the annual report process.

Finally, evidence for collaboration between the program and various colleges, departments, and research units will be collected through data on faculty teaching and advising (including project and thesis membership), grant writing, and program participation that will be analyzed as part of the annual report process.

- D. Develop a long-term budget plan in association with the goals and strategies and their effectiveness indicators. What internal reallocations may be appropriate? What new funding may be requested over the next seven years?

Several budget reallocations and/or enhancements would further the implementation of these goals and strategies. First, some of the program's budget could be used to hire student assistants to work on the design of surveys and record-keeping systems and the collection and analysis of data. Second, some additional enrollment and hence revenue might come through increased enrollments in cross-listed sections or perhaps classes in the minor in Sustainability (if it should be approved at the CSUF campus). Using new or existing resources to underwrite additional assigned time for program faculty to create sustainable programs with partners from the community and/or

campus research units such as the Desert Studies Center a Zyzx or the Center for Sustainability, or new or revised curriculum, might also be needed.

VIII. Appendices Connected to the Self-Study (Required Data)

1. Undergraduate Degree Programs
2. Graduate Degree Programs
3. Faculty
4. Resources
5. Long-term planning
6. *Curriculum Vitae* of faculty (which should include recent scholarly/creative activity and any research funding)

APPENDIX II. GRADUATE DEGREE PROGRAMS

TABLE 5. Graduate Program Applications, Admissions, and Enrollments

For each graduate degree program, a table will be provided showing the number of student applications, number of students admitted, the percentage of students admitted, the number of new enrollments, and the percentage of new enrollments. Percentage of students admitted is equal to the number of students admitted divided by the number of students who applied. Percentage of students enrolled is equal to the number of students enrolled divided by the number of students admitted.

TABLE 5. Graduate Program Applications, Admissions, and Enrollments

Academic Year	# Applied	# Admitted	% Admitted	# Enrolled	% Enrolled
2011-2012	55	41	74.5	28	68.3
2012-2013	43	29	67.4	23	79.3
2013-2014	40	38	95.0	23	60.5
2014-2015	21	17	81.0	14	82.4
2015-2016	32	31	96.9	23	74.2

TABLE 6. Graduate Program Enrollment in FTES

For each graduate degree program, tables will be provided showing student enrollment for the past five years.

TABLE 6-A. Graduate Program Enrollment in FTES

Academic Year	Enrollment in FTES
2011-2012	65.50
2012-2013	49.45
2013-2014	58.25
2014-2015	44.00
2015-2016	46.25

Table 6-B. Graduate Program Enrollment in Headcount

Academic Year	Headcount majors				FTES per headcount
	Master's	Doctoral	Credential	Total	
2011-2012	76	0	0	76	.5
2012-2013	67	0	0	67	.6
2013-2014	70	0	0	70	.6
2014-2015	56	0	0	56	.5
2015-2016	50	0	0	50	.6

TABLE 7. Graduate Student Graduation Rates

For each graduate degree program, a table will be provided showing the graduate rate for Master's seeking students.

TABLE 7. Graduation Rates for Master's-Seeking Students

All Master's Enrolled in:	Headcount	% Graduated in 2 years	% Graduated in 3 years	% Graduated in 4 years	% Graduated in 4 years plus 5 th year persistence
Fall 2008	11	9	55	64	73
Fall 2009	17	24	47	47	53
Fall 2010	28	21	61	71	71
Fall 2011	28	25	43	79	79
Fall 2012	22	50	68	82	82

TABLE 8. Master's Degrees Awarded

For each graduate degree program, a table will be provided with the number of master's degrees awarded.

TABLE 8. Master's Degrees Awarded

Academic Year	Degrees Awarded
2011-2012	25
2012-2013	28
2013-2014	20
2014-2015	25
2015-2016	29

APPENDIX III. FACULTY

Table 9. Full-Time Instructional Faculty, FTEF, FTES, SFR

For the five most recent academic years, a table will be provided with the Number of Tenured Faculty, Number of Faculty on Tenure Track, Number of Faculty on Sabbatical, Number of Faculty in FERP, Number of Lecturers, Full-Time Faculty Equivalent (FTEF) Allocation, Full-Time Student Equivalent (FTES) Target, and the Actual FTES.

Note that Data on FTES Target and Actual FTES will be provided by the Office of Institutional Research and Analytical Studies.

Table 9. Faculty Composition

YEAR	Tenured	Tenure Track	Sabbaticals at 0.5	FERP at 0.5	Lecturers	FTEF Allocation	Actual FTES
2011-2012	0	0	0	0	4	0.8	65.50
2012-2013	0	0	0	0	4	0.8	49.45
2013-2014	0	0	0	0	4	0.8	58.25
2014-2015	0	0	0	0	6	1.2	47.85
2015-2016	0	0	0	0	5	1.0	48.35

APPENDIX IV and V are included in the self study above.

APPENDIX VI Faculty CVs

See separate .PDF file