

PROGRAM IN ENVIRONMENTAL STUDIES

College of Humanities and Social Science  
California State University, Fullerton

PROGRAM PERFORMANCE REVIEW 2024  
PROGRAM SELF-STUDY

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## I. 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's mission, goals, and strategies.**

CSUF's program in Environmental Studies is an academically diverse interdisciplinary hub, offering breadth and flexibility to help prepare environmental professionals to work in environmental fields. Environmental Studies students have access to faculty expertise in 18 departments: African American Studies, American Studies, Anthropology, Biology, Chemistry and Biochemistry, Chicana/o studies, Economics, Education, Engineering, English, Geography, Geology, History, Liberal Studies, Philosophy, Political Administration & Justice, Public Health, and Sociology. We admit students in the fall semester only and require three core classes of every first-year students, creating a strong cohort structure that fosters a community of diverse learners to address the challenges of global sustainability. We are an efficient, nimble program that produces a significant impact on sustainability across our region and beyond, continuing our legacy of over a half-century of interdisciplinary environmental studies at CSUF. Ours is one of the longest-running Environmental Studies programs in the nation, with an excellent placement record of students working in careers including environmental consulting, habitat restoration, forestry, museums, environmental education, public administration, and more.

In the seven years since our last program performance review, we have clarified our program's policies, revamped our website, deepened connections with our alumni, developed new recruitment strategies, welcomed excellent new adjunct and affiliated faculty, re-emphasized our program's commitment to issues of diversity and inclusion, implemented new advising systems, pursued fruitful partnerships across campus, and established important new co-curricular traditions for our program's community, visibility, and connections.

Now, in 2024, issues of sustainability are vitally important. Our goals align with the CSUF mission to enrich the lives of students and inspire them to thrive in a global environment. Our multidisciplinary approach to studying the environment cultivates critical, ethical, and creative thinking, both through experiential learning in the classroom and co-curricular activities outside of classrooms. Our diverse students and faculty are committed to dynamic inclusivity and social responsibility. Our alumni contribute to shaping sustainable futures for our region and world.

**B. Briefly describe changes and trends in the discipline and the response of the unit to such changes. Identify the external factors that impact the program (e.g., community/regional needs, placement, and graduate/professional school).**

As climate change becomes undeniable, the conversation has shifted to encompass not only scientific insights, but also the challenges of persuasion and politics necessary to help us get past climate grief, climate paralysis, and overly-individualistic responses to our climate crisis. The interdisciplinarity of our program is vital at this moment. Our field has a growing awareness of intersectional environmentalism, or the ways that class, race, gender, and other factors impact experiences of the environment. We are glad that issues of equity and environmental justice are currently at the forefront of our field because they are something we value. Since our last PPR review, we voted to enlarge our advisory board to include voting members from the departments of African American Studies and Chicana/o Studies. Our affiliated faculty member Chris Gibson (Sociology) founded the CSUF Environmental Justice club, with whom we partner closely, and we have recently offered new versions of our classes on Environmental Activism, Urban Ecology, and Environmental Education. Our students' demographic profile has been

diversifying wonderfully along with the rest of CSUF. We are especially proud of the growing proportion of women who earn a Masters of Science degree from us.

In the next ten years, The [U.S. Bureau of Labor predicts a growth of 6%](#) in jobs for environmental scientists and specialists, while the American Geosciences Institute predicts growth from 7.6-8.4%, faster than most other job categories. Our current climate crisis also means that we are seeing increasing student interest in the environment. In CSUF's [2023 Beginning College Survey of Student Engagement](#), 19% of first-year students wrote that they were "very much concerned about climate change and environmental issues," with another 34% "quite a bit concerned." Overall, at least half of CSUF undergraduates expressed high levels of concern for the environment. In response to this trend, we are working to improve our recruitment of students. We aim to equip students who are concerned about the environment with the skills and knowledge to develop informed and creative solutions to environmental challenges.

### **C. Identify the unit's priorities for the next three (short term) and seven years (long term).**

Recruitment is our largest priority. Our last PPR reviewers recommended revamping our website and deepening connections with alumni to support this priority. We have done both and more. In 2022, we produced a video of our wonderful alumni reflecting on how the program has led to their varied careers. This video now plays on a loop in the Humanities building and Gordon Hall as well as on [our redesigned website](#). We have developed an active [ENST Instagram account](#), a [LinkedIn group](#) to help alumni showcase their degree and keep in touch with us and each other, and a revamped [Green Titan newsletter](#). Last year our Grad Advisor presented at the Biology Department Colloquium and CSUF's Passage to the Future program. We have designed new fliers, held information sessions for interested students at GradExpo and online, used TitanNet to reach out to students who took CSUF undergraduate classes in sustainability, and recently begun training our current students to act as "Grad Ambassadors" to speak to more large undergraduate classes interested in sustainability, in order to invite CSUF's diverse undergraduates to consider our grad degrees.

In 2021, our students founded the CSUF chapter of the OC Association of Environmental Professionals and we have instituted an annual Environmental Careers Night to further deepen our connection with alumni and local environmental employers. We have also begun to establish closer relationships with the chairs of undergraduate environmental studies programs at nearby institutions and worked to connect with career counsellors and specialized programs across CSUF. We are aware that there is more to do and also that we want to keep recruitment sustainable, without exhausting either our Program Coordinator or Grad Advisor.

Since our last PPR review, we have also developed new structures and policies to strengthen our program: we composed and revised our program's governing documents to clarify our procedures, established a robust assessment strategy including an exit survey, instituted Qualtrics forms to keep track of student enrollment in our supervisory courses, refined our Orientation handbook, created an engaging interactive quiz to help new students understand that handbook, established new annual traditions -- including a "welcome back" hike in Fall and a field trip to the CSU Desert Studies Center in Spring -- to deepen connections among students and faculty in our program. We also designed Canvas pages for both ENST students and affiliated faculty to keep in touch with each other, as well as Canvas pages to clarify expectations for our internship course and capstone project course. These new systems strengthen our program and help address the problem of continuity identified in our last PPR, which remarked on the abrupt transitions, steep learning curves, and loss of institutional memory that had

occurred in the past when program personnel changed. Now that we have shored up our institutional foundations, we hope to spend the next seven years assessing and refining these program structures.

Our short-term goals are to continue to improve recruitment and our program's sense of community.

- Improve recruitment by:
  - Increasing our program's visibility in both online and in-person ways
  - Deepening partnerships across campus and our region.
- Foster a sense of community and shared governance by:
  - Continuing to create collaborative governance structures, including advocating for increased stipends and/or release time for faculty who contribute to ENST.
  - Continue to balance our program's coverage across the social sciences, natural sciences, and the environmental humanities.

Our longer-term goals are around curriculum.

- Expand breadth of course offerings:
  - Continue to coordinate closely with our partner disciplines across campus.
  - Explore ways to offer ENST courses during intersession or summer session, in order to serve student needs and further reduce time to graduation.
- Deepen program rigor:
  - In a program with our breadth, there is a risk of shallowness that we counteract through deliberately reflecting on syllabi, pedagogy, capstone projects, and support for student research.

**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.).**

Our classes are graduate seminars capped at 20 students. Because of recent policies from Extension & International Programs for a minimum enrollment of 25 students across any department, it is impossible for a grad-only program like ours to offer special session classes during intersession or summer school. EIP's minimum-class-size policy affects our students' time to graduation and our faculty's plans for what could be exciting courses, including Study Away at locations like the CSU Desert Studies Center in Zzyzx. The chance to offer ENST special-session courses used to be one of the reasons faculty engaged deeply with our program. Our students and faculty would love to resume special-session courses, but we cannot unless EIP considers a grad-seminar exception to their class-size rule, as they already do for some study-abroad programs.

## II. Program Description and Analysis

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

Since our last review, we developed a popular new topic for ENST 595T, Habitat Restoration, in order to better connect students to this growing and vital field. In 2021, we successfully submitted a catalog change to eliminate the tracks that had confused students and unnecessarily separated our students interested in the social sciences from those interested in natural sciences, as well as to clarify other degree requirements in support of the campus's transition to online Titan Degree Audits for graduate students. To ensure program rigor, in 2022 we updated our guidelines for ENST 597 capstone projects

and also revised the study guide to our capstone comprehensive exam. For the sake of efficiency, in 2023, we allowed our course ENST 530 Environmental Statistics to be retired because we had not offered it for 6 years and interested students can take graduate-level statistics courses in the departments of biology, mathematics, political science, public health, and psychology.

In 2014, professors John Bock and Scott Hewitt developed our only undergraduate course, CHEM 492/ENST 492 Sustainability Projects, a course that we hoped would provide undergraduates with exposure to our program and a foundation for a possible undergraduate minor in Sustainability Studies. Because of the complexities of cross-listing, this course has not provided FTES for our program. This class requires working on teams with community partners to address local sustainability issues, which means working during normal business hours, but, like other CSU grad programs, most of our grad students have day jobs and prefer evening classes. Given the logistical challenges, our nascent plans for an undergrad minor are currently on hold. We may revisit this if we see other cross-disciplinary undergraduate minors thriving.

**B. Describe the structure of the degree program (e.g., identify required courses, how many units of electives, expected modalities of courses in the program) and identify the logic underlying the organization of the requirements and alignment of the requirements with the department resources. In particular, please discuss how the curriculum and/or programming reflects the University's commitment to diversity, equity, and inclusion (DEI) or future revisions the program plans to make to address DEI in the curriculum.**

The MS in ENST is a 36-unit program. In order to provide students with a common understanding of the cross-disciplinary field of Environmental Studies, familiarity with environmental regulations, and a set of tools for environmental research and analysis, three core courses are required for all students: ENST 500 Environmental Issues and Approaches, ENST 510 Environmental Evaluation and Protection, and ENST 520 Environmental Research and Analysis,. We require that these courses be taken in order upon matriculation (500 and 510 in fall and 520 in spring), so this sequence deepens the sense of community among each incoming cohort of students.

We require one planning course: ENST 595T-01 Environmental Impact Assessment, ENST 595T-03 Environmental Planning, GEOG/POSC 478 Urban Planning Principles, or GEOG/POSC 484 Urban Planning Methods. In recent years, we have coordinated closely with the department of Geography to make sure that our offerings of those four courses do not overlap in any given semester, while also offering at least one of those four courses every academic year, in order to best serve student needs.

To ensure that students receive both disciplinary training in ENST as well as advanced training in associated disciplines, students must take a minimum of 9 units of ENST electives as well as a minimum of 9 units of cross-disciplinary electives. ENST electives include ENST 596 Internship, ENST 599 Independent Study, and the many topics of ENST 595T Selected Topics in Environmental Problems. Recent ENST 595T topics include Animal Rights, Environmental Activism, Environmental Education, Environmental Law, Environmental Sociology, Environmental Politics and Policy, Food and the Environment, Habitat Restoration, Hazardous Waste Management, Sustaining Southern California, and Wetlands. We rotate through those topics, offering each no more than once every 2 years, in order to best serve the students in our program. All of our ENST courses are currently in-person, although ENST 595T has been approved for online teaching.

For cross-disciplinary electives, students draw from an extensive list maintained by our graduate advisor, choosing fields related to the student's specific academic interests and career goals. Our students take grad-level classes in the departments of American studies, anthropology, biology, chemistry, economics, English, geography, geology, history, liberal studies, political science and public administration, public health, and sociology.

Students have three choices for fulfilling our culminating experience requirement: ENST 597 Project (3 units), ENST 598 Thesis (3 units), or Comprehensive Exam (no units). The project is the most popular choice for our students. A few students choose a thesis, which requires three advisors and earlier deadlines and is ideal for those planning to go on to Ph.D. studies. The comprehensive exam option, instituted in 2013, helps provide flexibility for students.

Most of our courses include attention to environmental inequality and other issues of diversity, equity, and inclusion. Without imposing a top-down policy, we have encouraged ENST faculty to ensure their syllabi reflect diverse voices and use practices of equitable pedagogy. Our new adjunct faculty hires and affiliated faculty additions reflect a wonderful range of diverse identities. To counter-balance the known biases of SOQs, the Program Coordinator has begun offering optional classroom observations for every ENST professor. For more on our commitment to issues of diversity, equity, and inclusion, see 1.B, above.

**C. Using data provided by the Office of Institutional Effectiveness and Planning to discuss student demand for the unit's offerings. Discuss topics such as over/under enrollment (applications, admissions, and enrollments), retention, graduation rates for majors (FTF and transfer), and time to degree. Address equity gaps in retention and graduation rates (see instructions, Appendices A and B).**

Along with other grad programs across the CSU, our enrollments have been declining in recent years. Our number of entering students declined steadily from 22 in 2016 to 10 in 2022 and our overall program headcount similarly declined from 100 in 2016-2017 to 50 in 2022-2023. In response, in 2022, we began a concerted recruitment effort that has successfully brought our number of incoming students back up to 17 in 2023 (see 1.C, above). Our highest priority is maintaining this level of recruitment in order to rebuild our program's size.

Our acceptance rate has remained approximately 80% and our yield rate is steadily around 70%. Our retention and graduation rates are impressive. Even while most students attend our program part-time, an average of 60% of our students graduate in 2 years, 82% graduate in 3 years, and 92% graduate within 4 years. Despite the disruptions of the coronavirus pandemic, 100% of the students who entered in 2019 graduated within 4 years, reflecting the skills of our graduate advisor and the advantages of our personalized, intensive advising. Our graduate rates show no discernible equity gap, perhaps because a majority of our students are members of underrepresented communities, helping them find support within their own cohorts as well as from faculty and staff.

**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, Appendices A and B).**

With entering classes between 10 and 25 students, we have been able to successfully constitute a community of scholars. Nevertheless, in response to our enrollment rates declining since 2016, we have reduced our course offerings from 6 ENST courses in Fall 2017 to just 3 ENST course offerings in Fall

2023. Because of that pro-active schedule planning, we have not needed to cancel any courses since 2017 after the schedule was released. We have also increased our outreach to graduate students and advanced undergraduates in other departments, so that in the past few years, students from anthropology, biology, geography, liberal studies, philosophy, and sociology have all enrolled in ENST seminars, keeping our class sizes consistently around 15 students, and, we hope, increasing our program's visibility across campus.

**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 (unit's future priorities).**

As we continue to add affiliated faculty from across CSUF, we may add more topic options to ENST 595T, Selected Topics in Environmental Problems, in relation to our priority to continue balancing our program between the social sciences, natural sciences, and environmental humanities. As part of our priority to increase our program's visibility and deepen campus partnerships, we will also continually update our list of cross-disciplinary electives as other campus departments revise their own course offerings.

**F. Include information on any Special Sessions self-support programs the department/program offers.** See 1.D., above.

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

**The review should address how the program ensures high-quality learning using relevant indicators and analyses, and how these analyses can facilitate continuous improvement.**

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

ENST completes an assessment report every year in November, prepared by the Graduate Advisor. We work on a three-year cycle, alternating between one of our three student learning outcomes (SLOs) each year. These SLOs have not changed since 2017.

**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.**

Our goals and SLOs are as follows:

**GOAL 1: *Theories and Methods of Environmental Studies***

**Learning Outcomes:**

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

**GOAL 2: *Analytical and Research Skills***

**Learning Outcomes:**



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

**GOAL 3: *Communication and Research***

**Learning Outcomes:**

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

Our direct assessment methods include applying a rubric to the written comprehensive exams taken by our students in the previous spring. Our indirect assessment methods include analyzing the results of an online exit survey administered to all students who completed their capstone experience (exam, project, or thesis) in the previous spring or summer (essentially, all graduating students).

The assessment results vary by year, but here we summarize the results from this year, centered on Goal/SLO 3:

For direct assessment, the total number of students taking the exam was 3; all 3 exams, or 100% of the samples, were evaluated. All passed, so the SLO was satisfactorily achieved. These 3 exams received overall scores of 86%, 87%, and 93%, respectively. Therefore, according to our rubric, 100% of the students (3) reached the Proficiency Rating of “Good,” which corresponds with the Proficiency Level of “Meets Expectations” (Very Proficient). No students reached our highest designation of “Distinguished,” nor did any receive “Adequate,” “Inadequate,” “Poor,” or “Fail,” which are the four lowest designations. The latter is an improvement from last year, when we had 1 “Adequate” exam.

Clearly, this sample is quite small, which unfortunately represents declining enrollments across CSUF, as discussed elsewhere in this report. We hope that enrollment will improve given the significant visibility and recruitment work that we have undertaken—and that we will therefore have larger samples to work with for future assessment rounds.

For indirect assessment, the total number of students who took the exit questionnaire was 8. Three did not answer the question relevant to the SLO. Therefore, the percentages here focus on the 5 responding students. 100% of responding students (5) indicated that the ENST program improved their ability to utilize information resources and technology to organize and evaluate environmental research. Specifically, 80% (4) reported “Some improvement” and 20% (1) reported “Significant improvement.” Therefore, the SLO was satisfactorily achieved. Additionally, we had very positive responses to the questions that we added to the survey in 2020. In response to the question, “I am satisfied with the amount of time it took me to finish this program,” 100% of students responded affirmatively (4, or 80%, said “Agree” and 1, or 20%, said “Strongly agree”). For the question, “My CSUF ENST education has prepared me to make a difference in my community,” 100% of students also responded affirmatively (4, or 80%, said “Agree” and 1, or 20%, said “Strongly agree”).

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

We took several improvement actions after submitting our Fall 2022 report. Our Program Coordinator convened a subcommittee in Spring 2023 to revise the study guide and exam questions on our

comprehensive exam. This subcommittee worked to develop questions that emphasize higher-order thinking and that ask students to synthesize their learning from across our courses. After 2 of the 8 respondents to our Spring/Summer 2023 exit survey requested more training in quantitative research, the professor of ENST 520 Environmental Research & Analysis plans to focus more on quantitative research in Spring 2024 and to bring in a relevant guest lecturer. A couple respondents also wanted more courses in environmental planning or CEQA (California Environmental Quality Act). In response, we are working with the Department of Geography to publicize relevant courses early and clearly.

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

A few of our students go on to Ph.D. programs, while the vast majority seek or maintain employment in the environmental field. In our last exit survey, 80% of respondents reported that their post-graduation career plans including seeking new employment in the environmental field, while 20% said their career plans stood outside the environmental field. As noted above, we have an excellent placement record of students working in careers including environmental consulting, habitat restoration, forestry, museums, environmental education, public administration, and more.

**E. Many departments/programs offer courses and programs via technology (e.g., online) or at off-campus sites and in compressed schedules. How are these courses identified, and how is student learning assessed in these formats/modalities?**

Not applicable.

## 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's or department's academic offerings and the department's long-term goals. Describe tenure density in the program/department and the distribution among academic rank (assistant, associate, professor) [see instructions, Appendix C]. Attach faculty vitae (see Appendix D).**

As a cross-disciplinary grad-only program, we lack dedicated full-time faculty. Our last PPR reviewers observed that our over-dependence on a Program Coordinator and Grad Advisor can lead to burnout. Both the Program Coordinator and Grad Advisor regularly work more than the 9 hours a week represented by the 3 WTUs release time they each receive. This work continues over the summer without a formal mechanism for summer compensation, beyond a small stipend for student advising. Because of our independent supervisory classes, both coordinator and grad advisor are regularly in danger of violating union rules for the maximum permitted 18.75 WTUs per semester.

We hire up to 2 adjunct faculty each semester. The recent retirements of some of our long-time adjunct faculty have led us to bring in dynamic new faculty with deep community experience: Professors Angel Piñedo, Trina Ming, and Thienan Pfeiffer, all of whom are ENST graduates. In the past few years, we have also added more than a dozen new ENST-affiliated faculty from CSUF's departments of African American Studies, American Studies, Anthropology, Chicana/o Studies, Economics, Education, Engineering,

Geography, Philosophy, Politics and Administrative Justice, Public Health, and Sociology, expanding the cross-disciplinary electives, campus partnerships, and mentorship available to our students.

**B. Describe priorities for faculty positions. Explain how these priorities and future hiring plans relate to relevant changes in the discipline; student enrollment and demographics; the career objectives of students; the planning of the University; and regional, national, or global developments.**

Our priority is to support our current faculty, deepen their engagement with this cross-disciplinary program, and continue to invite interested CSUF faculty from diverse disciplines to join our ENST advisory board, especially those whose research agendas are in the natural sciences, engineering, or health & human development. Because we are housed in the College of Humanities & Social Sciences, our former dean has required that our Coordinator and Grad Advisor be members of H&SS. As we transition to a new dean, we may explore eventually bringing in program leadership from other colleges, to best serve student interests in scientific research and balance our program across CSUF's colleges.

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

As a cross-disciplinary program, all the tenure-line faculty who teach for us, advise our students' projects, serve on our committees, and serve as affiliated faculty also have homes in other departments. Faculty who teach for us receive release time from their home departments. Our [47 affiliated faculty](#) represent 18 different departments from 5 of CSUF's colleges: Business, Education, Engineering & Computer Science, Health & Human Development, Humanities & Social Sciences, and Natural Sciences & Mathematics. The bulk of our affiliated faculty have expertise in the social sciences or environmental humanities. As noted in 4.B, our leadership in recent years has been exclusively drawn from H&SS.

Our adjunct professors are also working professionals in the fields of environmental assessment (Thienan Pfeiffer), environmental education (Angel Piñedo), environmental law (Martin McCarthy), environmental planning (Frank Haselton), and habitat restoration (Trina Ming), helping to connect our students to up-to-date practical skills, real-world examples, and networking opportunities. Most semesters, we offer one course taught by one of those adjuncts: approximately 25% of ENST's course offerings. That can vary depending on the availability of tenure-line faculty; some semesters we have no classes taught by adjuncts.

As a grad-only program, we have no teaching assistants, but we encourage our students to find on-campus employment, so ENST students have recently served as teaching assistants in undergraduate courses in CSUF's departments of Biology, Chicana/o Studies, and Public Health, helping our students to deepen their own networks and qualifications. Our graduate students also work in other capacities across campus, especially in the Center for Sustainability and the Fullerton Arboretum Learning Farm and Apiary managed by the U-ACRE Project.

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

See 1.D, above.

## V. Student Support and Advising

**A. Briefly describe how the department advises its majors, minors, and graduate students and the effectiveness of this advising structure. Describe the support from outside the department that is necessary for students to receive additional information that they need.**

Our Graduate Advisor, Nicole Seymour, responds to prospective student inquiries, serves on our admissions committee, updates the orientation handbook and provides an orientation presentation (with the chair) to every incoming cohort, communicates with students about important deadlines, guides each student to craft their individual study plan, meets with students regularly each semester, updates advising notes on TitanNet, assists with obtaining registration permits, monitors any students on academic probation, connects students to campus resources, updates the list of cross-disciplinary electives, reviews Grad Checks, updates student TDAs as needed, attends the campus-wide Grad Advisor retreats, writes the annual assessment report, administers our comprehensive exam, convenes our capstone project presentations, and writes letters of recommendation for students upon request. She also assists the Program Coordinator with recruitment, the clothing swap, and other tasks as needed. Her intensive advising has led to impressive graduation rates, explained in 2.C, above.

In 2021 and 2022, CSUF's Office of Grad Studies surveyed graduate students across the university and the results gave us a lot to be proud of. According to this survey, 75% of our ENST students found our graduate advisor "very helpful and supportive," the highest percentage in the College of H&SS. One hundred percent of our students agreed with the statement, "Peers in my program are friendly and supportive", again the highest in H&SS, tied with two other grad programs. We were glad to see that 94% of our students agreed with the statement "The university/program values diversity," and 88% agreed with the statement "My program challenges me to think in new and complex ways about my field." In other admirably high satisfaction rates, 75% of our students reported being on track to graduate in the timeframe they had expected, 72% found our level of academic rigor appropriate, and 78% agreed with the statement, "My program is providing me with the knowledge & skills I need to succeed in my career."

We encourage our students to seek support from beyond our program, regularly informing them of the services offered through CSUF's Office of Grad Studies, the Graduate Studies Center, Career Center, Center for Internships & Community Engagement, Writing Center, Athletics, Associated Students Inc., Counseling & Psychological Services, Diversity Initiatives and Resource Center, and Extension & International Programs. Most of our students remain centered in our program. Our students' major support from beyond our program comes from those who find on-campus jobs, especially the wonderful learning opportunities provided by CSUF's Campus Garden and the Learning Farm at the Fullerton Arboretum.

We work proactively with new tools that allow us to serve students even better. In spring 2023, the Graduate Advisor received training to switch from the old study plan model of tracking students to the online graduate TDA (Titan Degree Audit) and TitanNet, allowing both students and the advisor to have a clear record. We eagerly await the Graduate Academic Planner, which Graduate Studies will roll out in 2024. Our program volunteered to be part of the pilot for this tool to help our students effectively plan their graduate careers.

In the past 3 years, we have also established new traditions to help our students & faculty feel connected to each other, deepening program community and increasing program visibility. These include:

- August welcome-back hike at Bolsa Chica Ecological Reserve, led by an interdisciplinary group of faculty and targeted especially to our incoming students.
- October and April clothing swap on campus, in partnership with the undergraduate-led Fullerton Fashion Club as well as CSUF's Sustainability Office, to serve students' needs, increase program visibility, reduce the environmental impact of fast fashion, and share the joy of sustainable community.
- Spring-semester trip to the CSU Desert Studies Center at Zzyzx, open to our whole program while also connected to at least one of our ENST classes.
- May capstone project presentations for our graduating students, open to family, friends, and fellow students.

**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 made available and accessible to students? List the faculty and students participating in each type of activity and indicate any plans the department has for increasing these activities.**

Our high-impact practices include frequent field trips, a robust program of internships and independent studies, and intensive advising to support all students. We have established an active ENST Student Canvas page to frequently publicize opportunities for internships, jobs, scholarships, community collaborations, student research opportunities, and more.

At least half of ENST courses include opportunities for field trips and community-based learning, including at Back Bay Science Center and Newport Bay Conservancy, Bolsa Chica Ecological Reserve, CSU Desert Studies Center in Zzyzx, and the Fullerton Arboretum. Many of our students also do research at U-ACRE, the Learning Farm and Apiary at the Fullerton Arboretum. Our students have recently participated in study abroad trips to analyze ecotourism in Bali and to monitor turtle nests in Costa Rica (the latter trip was through UCSB). Our faculty worked closely with CSUF's office of risk management to make ours the first programs in H&SS to hold field trips after the coronavirus shutdowns in spring 2020.







Images of experiential learning in 2023. From top left: Students in our Habitat Restoration class practice quadrant analysis at Upper Newport Bay, Tuffy Titan poses with students at our Clothing Swap, our students join other U-ACRE fellows to conduct research at the apiary at the Fullerton Learning Farm, students in our Environmental Education class observe *Paramecium caudatum* (a protist species used in water bioremediation), the Environmental Justice club tours Orange County Water District's groundwater replenishment system, and students learn about native plants at the CSU Desert Study Center.

Each semester, up to 7 ENST students enroll in our internship course, ENST 596, supervised by our program chair. Recent student internship sites include Dudek Planners & Engineers, the Fullerton Arboretum, Inland Empire Utilities Agency, La Brea Tar pits, OC Sanitation, OC Water Board, and the cities of Chino, Fullerton, Santa Ana, and Newport Beach. The students who completed internships in 2022-23 are Anmol Anmol, Brittany Abujudeh, Ashley Alamo-Spradlin, Avalon Andrews, Sarah Franklin, Alex Lewandowski, Steven Mendoza, Bryan Nguyen, Calvin Nguyen, Andrew Scott Williams, and Ifeyani Williams. To support these internships, we have recently designed a Canvas page for all ENST 596 students and instituted mid-semester check-ins as well as more flexible end-of-semester reflection options. In the future, we plan to distribute a list of recommended internship sites, to help students understand their best options.

Approximately two-thirds of our students choose to do a research project as their exit option, partnering with faculty to conduct original research. In collaboration with TitanShops, we offer a small scholarship each semester to help fund one student research project. Our 2022 and 2023 student projects and these were:

- Avalon Andrews, “The Alleopathic Potential of Sweet Potato Cultivars: Suppressing Invasive Weeds with Agroecological Farming” with Prof. Sara Johnson
- Steve Anticono, “Proportional Analysis of Adult Daughters to Founder Mother Mites as a Possible Early Warning System in the Management of *Varroa destructor* in *A. mellifera* Colonies” with Professors Sara Johnson, Scott Hewitt, and Elaine Lewinnek
- Hannah Batchelor, “Rose Gardens of the Rich and Powerful: What Do Roses Signify?” with Prof. Sara Fingal
- Nathalie Carrillo, “Determining the Genetic Structure and Diversity of Restored Eelgrass (*Zostera marina*) Beds in Newport Bay” with Prof. Jennifer Burnaford
- Mayra Chavez-Tobar, “Food Waste Diversion from Landfills through Food Pantries” with Prof. Justin Tucker
- Aimee Frappied, “Eco- and Sustainable Branding: A Case Study of Sustainability Assessments and Effects on Consumer Behaviors” with Prof. April Bullock
- Christina Furio, “A Comparative Analysis of Site Management Plans to Assist in the Recovery of Wintering and Breeding Western Snowy Plovers at Balboa Peninsula, Newport Beach, California” with Prof. Tony Bomkamp
- Prasad Galhena, “Per- and Polyfluoroalkyl Substances in the Environment: An Overview of the Occurrence, Distribution, and Remediation” with Prof. Sudarshan Kurwadkar
- Leon Garoyan, “Overview of Municipal Solid Waste Options” with Prof. Justin Tucker
- Karolina Guerrero, “Decolonial Research: Exploration of Human-Environmental Relationships and Indigenous Epistemologies” with Prof. Sarah Grant
- Amy Heil, “Foraging Behavior of Mammalian Herbivore in Response to Predation Risk” with Prof. Sara Johnson
- Alex Lewandowski, “Habitat Restoration and Maintenance Plan for the California Native Meadow at the Fullerton Arboretum” with Prof. Trina Ming
- Steven Mendoza, “Site Restoration Using the Pleistocene Plants of California” with Prof. Trina Ming
- Calvin Nguyen, “Vermiculture Community Connections” with Prof. Sara Johnson
- Jase Oesterblad, “Challenging the National Wetland Plant List Indicator Status of Tree Tobacco (*Nicotiana glauca*)” with Prof. Tony Bomkamp
- Martika Orozco, “Dinosaurs in Los Angeles County: A Photo-Ethnography of Oil Wells” with Prof. Sarah Grant
- Avery Patterson, “Shore Bird Reaction to Oyster and Eelgrass Restoration” with Prof. William Hoese
- Aelna Sakamoto, “Mojave River Forks Dam Habitat Management Plan” with Prof. Justin Tucker
- Mike Ventri, “A Disaster-Resistant Building Design: Sustaining a Minimal Ecological Footprint” with Prof. April Bullock
- Andrew Scott Williams, “Remote Sensing of a Wetland” with Prof. Rich Laton
- Ifeyani Williams, “Are California Native, Edible/Medicinal Pollinators More Effective at Attracting Pollinators than Non-Natives?” with Prof. April Bullock

## VI. Resources and Facilities

**A. Itemize the state support and non-state resources the program/department received during the last seven years (see instructions, Appendix E).**

See Appendix, table 10. We generally offer 4 classes each semester, use \$1000 in consolidated course fees each academic year, and offer small stipends of \$200 each to the faculty who serve on our major committees or advise our students' capstone projects, because this is in addition to their service to their own departments. Our program coordinator and grad advisor each receive 3 WTU course release per semester.

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

The program shares office and storage space in H-424 with the Department of Geography and the Program in Aging Studies. The program primarily uses one classroom, LH-304, generally in the evening hours. Our close alliance with CSUF's [Center for Sustainability](#) and the [Learning Farm](#) at the Fullerton Arboretum helps many of our students find scholarships, employment, and research opportunities.

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

The Pollack Library's databases, archives, and book collections have been a welcome resource for Environmental Studies, including their library instruction sessions and digitization programs. We do not anticipate any new library needs, other than course's access to the increasing number of excellent documentary films around issues of environmental studies.

## 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 F).**

We plan to focus on recruitment, increasing our program's visibility by deepening partnerships across campus and our region. This includes reaching out through our alumni and the College of Education to invite local high school teachers of AP Environmental Science to consider our program. We will measure success by the number of students who apply and enroll.

We also hope to foster a deeper sense of community and collaborative governance in this cross-disciplinary program. We will refine our governance structures, including advocating for increased stipends and/or release time for faculty who contribute to ENST. We will explore ways to better include faculty outside the college of H&SS as we continue to balance our program's interdisciplinary reach across the social sciences, natural sciences, and the environmental humanities. We will also explore ways to offer ENST courses in intersession and summer session, in order to expand our course offerings and better serve student needs, as well as rewarding faculty for their program involvement. We will measure success in this area by the diversity of our course offerings and the range of our students' capstone projects created in collaboration with faculty mentors.

Finally, we will continue to ensure the rigor of this program by reflecting on syllabi, pedagogy, the design of capstone projects, and systems of support for student research. In this area, we will see success through our program assessment reporting and our students' capstone projects.



**B. Explain how the long-term plan implements the University’s mission, goals, and strategies, as well as the unit’s mission and goals.**

Our enriching multidisciplinary education cultivates critical thinking about the social responsibility to sustain our planet, in direct correlation with CSUF’s mission and goals. Our students benefit from experiential learning and vibrant co-curricular experiences in a culturally diverse environment, learning scholarly inquiry and critical and creative thinking that emboldens them to emerge as effective and ethical leaders of sustainability in southern California and the world.

**C. Explain what kinds of evidence will be used to measure the unit’s results in pursuit of its goals, how the unit will collect and analyze such evidence, and the timeline against which progress toward those goals will be measured.**

Application and enrollment numbers measure our recruitment efforts. Course offerings and students’ faculty-mentored projects measure our success at balancing our cross-disciplinary program. Exit surveys, faculty engagement, and our assessment plan measure our sense of community as well as the depth of the scholarly inquiries we inspire.

**D. Describe the resources (internal and external) that may be necessary, available, and/or attainable to meet the unit’s priorities. Describe new funding that may be needed to maintain educational quality. Discuss the appropriate balance between state-supported and external funding. Discussion in this section should address the needs identified in areas I-VI above, with the understanding that the ability to meet strategic goals depends on available resources.**

We especially welcome help with recruiting students and publicizing our program. That is our highest priority. Streamlining the graduate admissions process would contribute to this goal, including shortening the often months-long delay in processing international transcripts. Most years, we lose international applicants when the university transcript-verification process pushes their official admission too late for visa processing.

Our program chair and grad advisor are overburdened, so we would appreciate additional funding to reward faculty service to our program, on top of their service to their home departments, in order to broaden our program’s leadership beyond only the chair and grad advisor.

Because many labs that our students are interested in joining often have funding only for graduate students in their own departments, not our cross-disciplinary program, we welcome sources of funding to support our student’s research.

**Conclusion**

Our cross-disciplinary program is a campus hub, connecting faculty and students across colleges and departments. Our program reflects the interconnectedness of the environment itself. As John Muir observed, “When we try to pick out anything by itself, we find it hitched to everything else in the universe.” That interconnectedness is our strength. We are proud of our unusually dedicated faculty leaders, focused advising, broad network of alumni, and diverse student body, as we educate the next generation of leaders addressing sustainability in our region and world.

## VIII. Appendices

### 2023-2024 PPR Tables: Environmental Studies MS

Office of Institutional Effectiveness and Planning

#### APPENDIX B. GRADUATE DEGREE PROGRAMS

Table 5. Graduate Program Applications, Admissions, and Enrollments

Table 5. Graduate Program Applications, Admissions, and Enrollments

Fall	# Applied	# Admitted	# Enrolled
2016	33	29	22
2017	37	30	19
2018	26	24	18
2019	20	18	15
2020	27	22	14
2021	33	22	13
2022	21	16	10

Table 6. Graduate Program Enrollment by Headcount and FTES

Table 6. Graduate Program Enrollment by Headcount and FTES

Academic Year (Annualized)	Headcount	FTES	FTES per Headcount
2016-2017	100	64.25	0.64
2017-2018	101	64.58	0.64
2018-2019	93	58.58	0.63
2019-2020	75	50.92	0.68
2020-2021	65	45.67	0.70
2021-2022	59	41.92	0.71
2022-2023	50	33.83	0.68

Table 7. Graduate Student Graduation Rates

Table 7-A. Graduation Rates for Master's Programs

All Master's Entered in Fall:	Cohort	% Graduated		
		In 2 Years	In 3 Years	In 4 Years
2015	22	63.6%	81.8%	95.5%
2016	22	50.0%	77.3%	86.4%
2017	19	68.4%	84.2%	84.2%
2018	18	55.6%	77.8%	94.4%
2019	15	60.0%	93.3%	100.0%
2020	14	64.3%	78.6%	N/A
2021	13	61.5%	N/A	N/A

Table 8. Master's Degrees Awarded

Table 8. Graduate Degrees Awarded

College Year	Degrees Awarded
2016-2017	23
2017-2018	21
2018-2019	20
2019-2020	19
2020-2021	17
2021-2022	19
2022-2023	13

## APPENDIX C. FACULTY

Table 9. Full-Time Instructional Faculty

Table 9. Faculty Composition<sup>1</sup>

Fall	Tenured	Tenure-Track	Sabbaticals at 0.5	FERP at 0.5	Full-Time Lecturers	Actual FTEF
2016	N/A	N/A	N/A	N/A	N/A	N/A
2017	N/A	N/A	N/A	N/A	N/A	N/A
2018	2	1	0.0	0.0	0	1.1
2019	1	0	0.0	0.0	0	1.3
2020	1	0	0.0	0.0	0	0.6
2021	2	1	0.0	0.0	0	1.0
2022	3	1	0.0	0.0	0	1.0

<sup>1</sup> Headcount of tenured, tenure-track, sabbaticals at 0.5, and FERP at 0.5 includes full-time and part-time faculty. Headcount of lecturers only includes full-time faculty, as consistent with the IPEDS HR definition. It does not represent the number of full-time lecturer lines assigned to the department.

Table 10

Fiscal Year	Budgeted FTEF	Target	Actual FTES
AY22/23	1.90	24.70	11.77
AY21/22	2.00	23.50	14.70
AY 20/21	2.00	26.00	15.88
AY 19/20	2.00	26.00	18.45
AY 18/19	2.00	26.00	21.10

## **6. Curriculum Vitae of Faculty**

See attached file.