

PURPOSE AND INTEGRATION WITH BROADER PLANNING

The comprehensive program review captures the longer-term strategic plan for a program. It allows the program to document its vision. The CPR alerts the campus of the program's mid- to long-term goals and describes the means for achieving those goals. The CPR is the touchstone for creating and reviewing annual program goals and student learning outcomes. CPR information may also be used to inform college planning including: the strategic plan, education plan, facilities plan, strategic enrollment plan, including scheduling, budget, sustainability and equity efforts, etc., see AP/BP 3260.

Items that may be included in a program review:

1. Analyze data on key performance indicators, such as enrollment, retention and completion rates, and findings from student learning outcome assessments and degrees and certificates awarded.
2. Highlight and analyze program activities, and accomplishments.
3. Identify and document program weaknesses and strengths.
4. Develop program objectives and goals.
5. Discussion of relevant program compliance with Federal and State law, Title 5, Student Equity, VTEA, matriculation (including prerequisite and co-requisite standards), ADA (American with Disabilities Act), and other legal or certification requirements. (applicable to specific programs)

Academic program review is an integral part of educational planning and enables the college to meet the accreditation standards of the Accreditation Commission for Community and Junior Colleges (ACCJC).

CPRs will be submitted per the schedule developed and communicated by the Strategic Planning Committee. Instructional CPRs will be reviewed and summarized within the Council on Instruction and used to inform leadership of program health and needs and to provide a vehicle for linking CPRs to other planning documents (e.g., Education Plan). Additionally COI will route specific portions of the CPR to shared governance committees for review. For example, a CPR that had a facilities need could be communicated/routed to Facilities Committee.

PROGRAM LINK TO COLLEGE MISSION

Feather River College provides high-quality, comprehensive student education as well as opportunities for learning, workforce preparation, and achievement in a small college environment. The College provides general education, associate and bachelor's degrees, certificates, transfer programs, and life-long learning for a diverse student population by serving local, regional, national and international students through traditional face-to-face instruction as well as distance education. The College also serves as a cultural and economic leader for all communities that lie within the District and embraces the opportunities afforded by its natural setting.

PROGRAM VISION AND GOALS

1. Describe the goals of the program and how these relate to the FRC Mission.

The Environmental Studies Department provides a hands-on, broad-based, science-oriented curriculum designed to prepare students for a variety of careers related to solving environmental and natural resource issues. The ENVR Department helps FRC achieve its mission by offering transfer and workforce preparation education that capitalizes on the College's natural setting and the region's workforce needs.

Goals:

- Create and offer a bachelor's degree program in Ecosystem Restoration and Applied Fire Management
- Continue to offer and increase enrollment in our A.S. in Environmental Studies degree program
- Continue to offer and increase enrollment in our A.S. in Environmental Science degree program
- Continue to offer and increase enrollment in our certificate programs: Biological Science (i.e. wildlife/botany) Tech, Fire and Fuels Cert, Forestry Cert, Hydrologic Sciences Cert, Hatchery Cert., and Ecological Farm Cert.
- Improve campus forest health and fire resilience AND significantly increase our ability to offer fuels and prescribed fire training opportunities to students through hands-on learning experiences on our campus and in our region.
- Improve advising and mentoring for students in our program to improve graduation rates and job placements
- Build better connections with regional employers to improve student and alumni work placement
- Improve relationships with our local Maidu community as we attempt to educate students about ethical and sustainable land management

2. What have been some program accomplishments since the last program review?

Since the last program review, the Environmental Studies Department has achieved several significant milestones and accomplishments. These accomplishments demonstrate our commitment to advancing our program and meeting the evolving needs of our students and the field of environmental studies and our community via commitments to workforce development.

Bachelor's Degree in Ecosystem Restoration and Applied Fire Management: One of our major achievements has been the approval of a new bachelor's degree program in Ecosystem Restoration and Applied Fire Management. This program addresses the growing demand for professionals skilled in ecosystem restoration and fire management, which are critical areas in contemporary environmental studies. This new degree option enhances our program's academic offerings and provides students with specialized knowledge and skills.

Faculty and Staff Expansion: We have made important additions to our faculty and staff with the hiring of three key positions.

- 2020 - Jon Dvorak has joined our team as the Forest Health and Fuels Manager. His expertise and experience in forest management and environmental health contribute significantly to our department's research and teaching capabilities.
- 2021 – Dana Flett was hired to replace Darla after her retirement. Dana extensive experience working in Sierra Nevada ecosystems, and managing large watershed restoration projects are a welcome addition to the ENVR program as well as the ORL program.
- 2023 – Hayden Lampe is the most recent addition to the ENVR team as an Instructional Assistant 100% funded through the Good Jobs grant, further enriching the educational experience for our students and supporting our academic initiatives.

Grants: ENVR faculty and staff have worked hard to secure several grants and partnerships that have improved and expanded learning opportunities for students within our program. While these grant undoubtedly improve campus safety, forest health, and learning opportunities, it should be noted that they also increase workload for program faculty as well as our VPI and Business Office.

- 2017 – SNC – Watershed Improvement Grant
 - 300k for Forest Health Work
 - Allowed FRC to hire Forest Health and Fuel Coordinator Position
 - Allows FRC to contract for important fuels reduction projects on campus
- 2022 – EDA Good Jobs Grant – CA Resilient Careers in Forestry
 - 500k for training in prescribed fire and fuels management
 - Allowed FRC to hire Instructional Assistant, Hayden Lampe, to help improve instructional quality and safety, and to assist faculty and staff in other expanding program tasks.
- 2022– SNC – Resilient Communities – Curriculum Development
 - 50k for Fuels Management Planning Curriculum Planning in coordination with Maidu Summit Consortium
 - Allowed FRC development fire, fuels, forestry, and environmental planning curriculum for community colleges with partners CSU Chico, Shasta College and MSC.
- 2022 – CAL FIRE Higher Education Fire Training (HEFT)
 - 1.2 million through partner Chico State University
 - Allows FRC to pay students for time they spent working on fuels reduction and prescribed fire projects as well as time they spent in prescribed fire training specific course.
 - Allows us to waive fees for students enrolled in NWCG wildland fire certification course
 - Allows Chico State and FRC to hire a crew supervisor position that will work both on the FRC campus under the supervision our Forest Health and Fuels Coordinator as well as on the Chico State Reserves properties helping to lead student workers during forest health and fuels reduction projects and trainings.

Partnerships: ENVR staff and faculty have worked hard to develop regional partnerships to improve training opportunities and job placement for students.

- **TREX** – FRC has built a robust partnership with the TREX, the prescribed fire training exchange program, in order to host regional prescribed fire training events in 2020, 2021, 2022. These events and partnerships have allowed us conduct prescribed burns on our campus to improve wildland fire resilience and campus safety and to train 100s of regional community members and dozens of full-time FRC students in prescribed fire skills.
- **Forestry Hub** – The Forestry Hub is a group of northern CA and Sierra foothill Community Colleges with forestry, fuels management and fire programs along with the CCCs, UCANR, and other associated groups organized under the Good Jobs grant that meet to coordinate regional education and workforce development goals in this industry. This group in the grant under which it formed are focused on job placement from alums of “training programs” and have encouraged us to form more formalized job placement relationships with program alumni.
- **USFS - NWCG Partnerships** – We are currently working with the Plumas National Forest to develop a formal agreement through which FRC will be able to host and certify National Wildfire Coordinating Group (NWCG) trainings.

Paid Internship Program: FRC faculty have worked hard to reinstate, expand, and improve a 10-week, full-time, paid summer and other part-time internships work experiences for students in our program. Students have been employed by the Plumas National Forest and the Feather River RCD over the last two summers and some continued work into the fall semesters. This jobs have help focus can clarify students’ career trajectories, given them valuable work experience and field skills, and help build connections between our program and local employers.

Curriculum: We have worked with Lori get all of our Technician Certificates approved by the state and transcribable certificates of achievement and have also aligned our Environmental Science A.S. degree with the new state Environmental Science TMC to create an AS-T.

3. **What support does the program need to assure its continued success? Explain by referring to specific program goals and objectives.**

Faculty: In pursuit of our program's continued success and to fulfill our program goals and objectives effectively, it is crucial that we address the **need for an additional faculty member in ENVR**. Our priority is to provide high-quality education and opportunities to our students, and recent developments within the department, most notably the addition of another bachelor’s degree, necessitate additional resources to maintain and enhance this commitment.

As highlighted in our accomplishments since the last program review, we have successfully prepared to launch a bachelor's degree program in Ecosystem Restoration and Applied Fire Management. However, offering this new program will add ten new courses to our program (two lower division and eight upper division) which measure to approximately 42 units of faculty equated load and will

also bring about an increased workload for our existing faculty members who are actively involved in developing and teaching courses for this program. To ensure the sustained growth and quality of this program, as well as our other existing degree offerings, **we need an additional faculty position dedicated to these specialized areas.**

Hiring a new faculty member is not only a strategic investment but also essential for the Environmental Studies Department's ability to offer a Bachelor's degree program. This addition will contribute to the overall success of our students, enhance the quality of education, and support our department's ability to remain at the forefront of environmental education.

Forest Health Position: With significant grant acquisitions, new programs, and increased complexity of workload and responsibility, we have requested the this position 1)be extended beyond the end of the original SNC Watershed Improvement and 2) be restructured to reflect increased scope of the role. This position is essential in allowing us to meet many program goals, including: offering a bachelor's degree with an applied fire emphasis, increasing enrollment in our A.S. degree and our Forestry and Fire and Fuels Technician Certs., improving student mentorship, building and improving relationships with regional employers for better student and graduate job placement, improving campus forest health, and significantly increasing our ability to offer fuels and prescribed fire training opportunities to students and community members through hands-on learning experiences on our campus and in our region.

STAFFING

1. **How many full-time and part-time faculty teach in this program (in-person, online, and ISP)?**

In the Environmental Studies Department, we currently have two full-time faculty members: Bridget Tracy and Dana Flett, who both have split positions teaching ~50% of their loads outside the ENVR department, in Earth Science and Outdoor Recreation Leadership, respectively. In addition, Jon Dvorak works as the Forest Health and Fuels coordinator, and while his main job is managing the campus forest, his experience with wildland and prescribed fire has been essential to the conception and rollout of our new program, and he provides many leaning opportunities for students as an associate faculty member and also through managing student employees, coordination of the HEFT program, planning and conducting campus burns, coordinating NWCG course and partnerships with the USFS. etc. Adam Fuller acts in a roll of Instructional Assistant managing our campus hatchery. He provides leaning opportunities for students enrolled in the aquaculture, fish and GIS classes, via his associate faculty roll, as well as by managing student employees, and hosting field experiences for other courses who vis the campus hatchery. Additionally, we benefit from four Associate Faculty members: Jessie Mazar, Don Fregulia, Bethany Rouse, Michelle Fulton, and Don Helfrich.

With the exception of the COVID-19 window, nearly all courses in ENVR are taught in-person, with some having one hybrid lecture hour. We may explore more hybrid lecture models for classes and we plan to roll out bachelor's level courses. None of the courses are currently offered in a fully

online model, though Environmental Policy will be offered online in spring 2024 with Flett is on family leave. One course, Environmental Science + lab, is now offered through the ISP program.

2. **What changes to staffing, if any, could make this program more effective for course offerings and student success? Also, how could staffing changes contribute to other programs and towards improving student interest and success in the program?**

In order to enhance the effectiveness of our program and improve both course offerings and student success, it is imperative that we address our current staffing needs. The recent development of a new Bachelor's degree program in Ecosystem Restoration and Applied Fire Management has stretched our existing faculty resources. To ensure the continued success of our program and foster a positive impact on student interest and achievement, we believe that **hiring a new faculty position is essential.**

The increased workload associated with developing and delivering courses for the new degree program, as well as meeting the demands of existing programs, will place a significant burden on our current faculty members. Hiring a new faculty position is a strategic investment that will enable us to meet the evolving needs of our students, maintain a high standard of education, and contribute to the success of our program. Furthermore, it will foster collaboration across disciplines, benefiting other programs, and help us attract and retain motivated students. This staffing change is essential for the continued effectiveness and vitality of our program.

In addition, we believe that all current and future bachelor's programs at FRC should have a **Bachelors Chair position** with a stipend and small release time in order to manage the complexity of managing these programs (budget and grant management, recruitment, course scheduling, staffing, reporting, managing community and industry partnerships and work placement, etc., etc.)

Curriculum

1. **Describe the educational pathways the program offers: completion of general education, certificates, associate degrees, bachelor's degrees, and/or transfer degrees.**

Associate of Science (AS) in Environmental Studies: This program provides students with a foundational understanding of environmental issues and sustainability. It covers a broad range of topics within the field of environmental studies, preparing students for entry-level positions in various environmental organizations or for further education.

Associate of Science (AS) in Environmental Science: The AS in Environmental Science program offers a more specialized curriculum, focusing on the scientific aspects of environmental studies. Students gain in-depth knowledge of ecological principles, environmental monitoring, and scientific research methods, which can be applied to careers in environmental science or as a stepping stone to higher degrees.

Certificates of Achievement: The program offers six different Certificates of Achievement, allowing students to tailor their education to specific areas of interest within environmental studies.

These certificates provide focused training and can be completed alongside or in addition to other academic programs.

Bachelor's Degree in Ecosystem Restoration and Applied Fire Management: This four-year program is designed to provide students with advanced knowledge and skills in ecosystem restoration and fire management. It equips graduates with the expertise required for careers in managing and restoring ecosystems, particularly in fire-prone environments. This program is a significant addition that caters to the growing demand for professionals in this specialized field.

These educational pathways offer students a range of options to pursue their interests and career goals in environmental studies. Whether students are seeking a two-year associate degree, specialized certificates, or a four-year bachelor's degree, the Environmental Studies Department provides comprehensive educational opportunities to prepare them for successful careers in the field of environmental studies and related industries.

- 2. What changes and conversations have occurred in the program to incorporate equity-minded curriculum? Examples from specific courses may be included. See *the Building Equity into Curriculum and Reducing Barriers to Learning (i.e., ideas, checklist) in the appendices to guide this reflection.***

In our ongoing commitment to equity and diversity, the Environmental Studies Department has actively engaged in conversations and implemented changes within our curriculum to promote equity-minded education. We strive to reduce barriers to learning, ensure access for all students, and create a learning environment that fosters inclusivity, empathy, and cultural awareness. One step we've taken to promote equity is the introduction of the course 'Principles of Indigenous Management' into our curriculum. This course explores traditional Indigenous knowledge and practices related to land and resource management. It not only acknowledges the invaluable contributions of Indigenous communities to environmental sustainability but also highlights the importance of diverse perspectives in environmental studies. While these themes are discussed in all natural resource management courses within our program, it is very valuable to have a full course dedicated to this topic. We are working with the local Maidu community to identify an instructor for the course.

As part of our efforts to engage better with our local indigenous community, we have instituted an annual meeting we have called the Maidu Advisory Committee where we can get feedback and insights on our program and curriculum. In October we were invited to visit the Maidu Summit Consortium Board Meeting in Chester, where we spent several hours discussing how our program and curriculum can better represent, engage and outreach to Maidu and other youth from indigenous communities in our region.

The other class within our department the focuses on themes of impacts of colonialism and disenfranchisement of indigenous people, conservation refugees and displacement, environmental and climate justice is ENVR 102, Introduction to Environmental Studies. We have struggled to run this course over the last few years due to over extended faculty loads and limited student interest.

Designing equity-minded curriculum that improves student success across demographic groups is always a work in progress. The courses that have the highest academic demands, i.e., writing, mathematical analysis, or computer-based analysis, show the lowest rates of student success (i.e. Intro to Environmental Science). Providing more examples, working through things more slowly, spending more time during class working on assignment assignments, and creating more opportunities for one-on-one with instructors are all things that can improve student success. However, in the end there is only so much time, but so many skills and SLOs we are attempting to impart to students, so this balance between quantity and quality is eternal.

3. Discuss how the program incorporates sustainability efforts, goals, or conversations in its curriculum?

The Environmental Studies Department (ENVR) is deeply committed to incorporating sustainability efforts, goals, and conversations into our curriculum. Sustainability is a core pillar of our educational mission, and we actively engage in various initiatives to promote environmental responsibility and awareness both on campus and in our academic offerings.

ENVR plays a role in promoting sustainability on our campus. Our department serves as a significant part of the Sustainability Action Team, demonstrating our dedication to advancing sustainability goals within the institution.

In recognition of the importance of student involvement in sustainability efforts, we established the Student Environmental Association. This student-led club empowers students to take an active role in enacting sustainability on our campus. It provides a platform for students to organize and participate in sustainability initiatives, projects, and events.

Our commitment to sustainability is evident in our curriculum design and delivery. Sustainability is a recurring theme and perspective integrated into our courses. This means that our students are encouraged to critically examine the environmental, social, and economic dimensions of sustainability in all aspects of our program.

4. Discuss how course outlines have been reviewed, and what curricular changes have resulted from these reviews.

Many Course CORs have been reviewed in the process of attempting to first get program certificates approved into transcribable Certificates of Achievement and then later to design and submit curriculum for our bachelor's degree. Most COR edits were not significant. Some involved minor changes will SLOs based on SLOS assessment. Others involved updates to text books, and course justifications. More commonly, our experience is to notice gaps in our educational offering across our program and create new courses, for example Geospatial Concepts and Principle of Indigenous Ecology.

INSTRUCTION

1. How does the program develop course scheduling to meet student needs?

This is a struggle. We work hard to communicate within our program and across related programs (i.e. biology) to ensure that lecture and lab times for required courses do not conflict. However, due to the high lab commitment for many of our courses, it is difficult for all the puzzle pieces to come together.

This will be an even greater issue as we attempt to add upper-division courses and schedule classes for folks who may still have significant work schedules. Moving more lecture hours into hybrid models, consider some evening meeting times for non-lab hours, considering some 9-weeks course, etc. are all on our radar for attempting to meet student needs going forward.

2. Describe effective and innovative teaching strategies (activities, projects, etc.) used by faculty to increase student learning and engagement.

We spend most of our learning time doing hands-on learning, field trips, labs, active learning, project-based learning. You name it, we have it in ENVR. Obviously, students love it (unless it's raining). However, they do need to learn some fundamental in the classroom on in an independent setting (which they struggle to follow through with) first, to get the most out of the hands-on learning experiences.

Assessment

1. Describe how students have achieved Program-level Student Learning Outcomes (PSLOs). Explain how PSLOs are assessed and how assessment been used to improve student learning and/or curriculum? Please be as detailed as possible.

See Question 3.

2. How do PSLOs support college-wide SLOs (CWSLOs)? Please use the table below and example, to capture this support using the following scale: (0) PSLO does not address CWSLO; (1) PSLO scarcely touches on CWSLO; (2) PSLO addresses the CWSLO to a moderate degree; (3) PSLO strongly meets the CWSLO.

Program faculty examined how PLSOs mapped to CWSLOs and were pleased to see that while different PSLOs emphasize different desired college outcomes, in-sum the PSLOs capture the desired college outcomes in a balanced way, with CWSLOs receiving between a 13 and 16 in our ranking system (see Table 1). As a result, we think that our program is doing a good job of addressing college SLOs.

	Communi- cation	Critical Thinking	Info Literacy	Ethics	Sense of Self	Inter- personal	Responsib- ility
Knowledge (ENVR)	2	3	3	1	2	2	2
Scientific Literacy (Env Sci)	2	3	3	1	1	1	2
Application of Skills	1	2	2	2	2	2	2
Communica- tion	3	2	2	2	3	3	2
Multidiscip- linary Perspective	3	2	2	2	1	2	3
Environme- ntal Ethic	2	1	1	3	3	2	2
Understand- ing of Sustainabili- ty	2	2	12	2	1	2	3
Total Impact	15	15	15	13	13	14	16

Table 1: PLSOs and CWSLOs

3. **How do course-level student learning outcomes (CSLOs) and other program learning experiences support the PSLOs? Please use the table below and example, to capture this support using the following scale: (0) CSLO does not address PSLO; (1) CSLO scarcely touches on PSLO; (2) CSLO addresses the PSLO to a moderate degree; (3) CSLO strongly meets the PSLO:**

Since there are so many individual course SLOs, it became too complicated to try to map all course SLOs to PLSOs. Instead, program faculty mapped the overall emphasis of each course, which should reflect its SLOs, to PLSOs. Again here, we were pleased to see that while different courses emphasize different skill sets and other desired educational outcomes, in-sum the breadth of courses available to students allows students completing a degree to meet all PLSOs in a balanced way, with all PSLOs receiving between a 30 and a 40 in our ranking system (see table 2). According to our ranking, the PSLOS that were addressed the least successfully by program courses were:

1. Scientific Literacy, a PSLO for Environmental Science, a major which requires to students to take many other foundational science courses, such as chemistry, biology, physics, etc. that address scientific literacy. And,



2. Sustainability, which is an undertone in all classed that focus on understanding and managing natural resources. Our curriculum is very hands-on and skills based. Our attention to technical skills is not meant to undermine the importance of teaching students about sustainability as a value and a goal, but it may be important for us to remember not to overlook this learning outcome.

Overall, we think that we do a good job addressing the PSLOs.

	Knowledge (ENVR)	Scientific Literacy (Sci)	Application of Skills	Communication	Multi-disciplinary Perspective	Environmental Ethic	Sustainability
045	1	3	3	3	1	1	1
102	2	1	1	2	3	3	3
103	1	1	3	2	3	2	1
131-135	3	1	3	1		3	3
142	3	3	1	3	3	2	3
142L	3	3	3	1	3	2	1
160	3	2	3	2	2	2	2
180	2	0	1	3	2	2	2
201	2	2	3	2	3	0	0
210	3	3	3	2	2	2	2
220	3	3	3	2	2	2	2
240	3	3	3	2	2	3	2
230	3	3	3	2	2	3	2
250	3	2	3	3	2	3	3
251	3	2	3	2	3	2	2
264	3	3	3	2	2	2	3
266	3	2	3	2	3	2	3
280	3	0	2	3	2	2	1
299	3	3	3	3	1	1	2
Total Impact	40	30	38	33	37	31	30

Table 2: Courses to PLSOs



4. **What were the most important things your department learned from assessment? How has the program used the results of assessment to improve student learning and/or curriculum? Please be as detailed as possible.**

Assessing Course Level SLOs can help us identify specific areas that need extra attention, but our analysis of PLSOs and CWSLOs gave us confidence that students completing our programs should be in a good position to leave FRC with competency in both PL and CW SLOs.

STUDENT LEARNING AND SUCCESS

1. **What are some program goals to strengthen and/or grow this program to accomplish greater student interest, learning and success?**

Enhance Experiential Learning: Develop more opportunities for hands-on learning, internships, fieldwork, and research experiences that connect students with real-world environmental challenges. These experiences not only enrich learning but also prepare students for careers in the environmental sector.

Diversity and Inclusion: Implement strategies to promote diversity and inclusivity within the program, ensuring that it reflects the breadth of perspectives and backgrounds in the field of environmental studies. Encourage underrepresented groups to participate actively and consider their unique needs and experiences in program planning.

Professional Development: Provide students with opportunities for professional development, including resume-building workshops, networking events, and connections with alumni and industry professionals. Empower students to explore various career paths within environmental studies.

Community Engagement: Establish partnerships with local organizations, businesses, and government agencies to engage students in community-based projects and initiatives. This not only benefits the community but also provides students with practical experience and a sense of civic responsibility.

Stay Current with Technology: Keep the program up-to-date with emerging technologies and tools relevant to environmental studies. Integrate digital resources, data analysis, and GIS (Geographic Information Systems) skills into the curriculum to enhance students' technical proficiency.

2. How does the program consider or approach issues of student equity related to retention and success? This may include use of tutors and other student support services, etc.

As we move forward would like to do a better job creating mentor program with faculty and students, creating cohorts within our program, via club activity 103 course, HEFT, etc. and creating better systems of tutors. Hopefully, having some students stay for four years to complete the bachelor's program will create better systems peer tutors and general strong social and community bonds within the program.

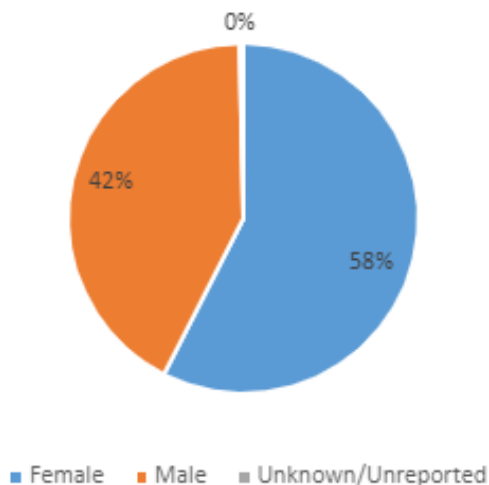
3. Describe the average student demographics of the program and discuss success rates of different student populations by mode of instruction (i.e., race, ethnicity, sex, age. Analyze data provided by the Institutional Research. *Look at enrollment, retention, and success data by delivery mode as applicable.* What are your observations?

Environmental Science Fall 2018- Fall 2022 Demographic Charts

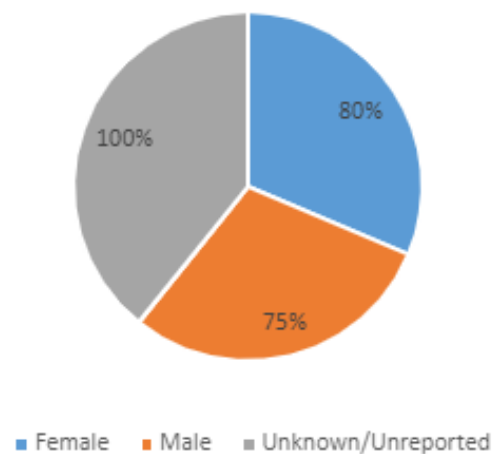
Gender

Key takeaways: There are more females enrolled than males. Females tend to have slightly higher success rates compared to males.

Total Enrollments by Gender



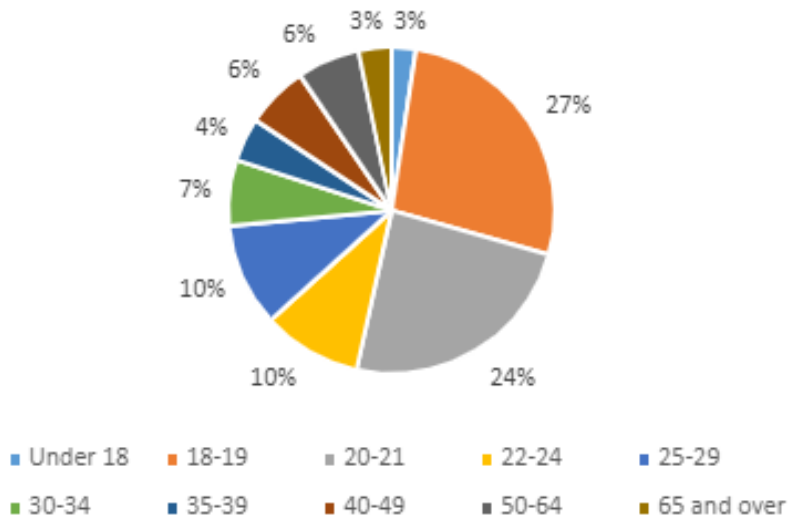
Success Rate by Gender



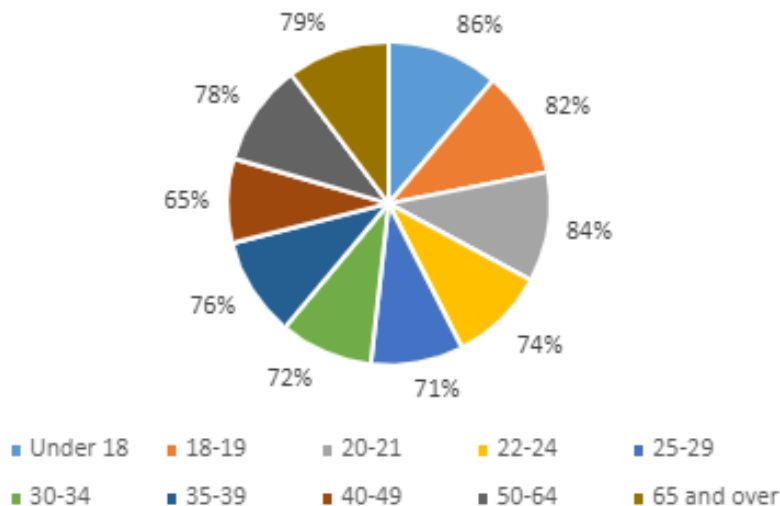
Age

Key takeaways: The highest success rates are observed among students under 18 (86%), 18-19 years old (82%), and 20-21 years old (84%). There is a trend of declining success rates as students get older, with the lowest success rates observed among students aged 40-49 (65%) and 25-29 (71%). Interestingly, there is a notable increase in success rates among older adults (50-64 and 65 and over). Both of these age groups have success rates of 78% and above, which is higher than some of the younger age groups.

Total Enrollments by Age



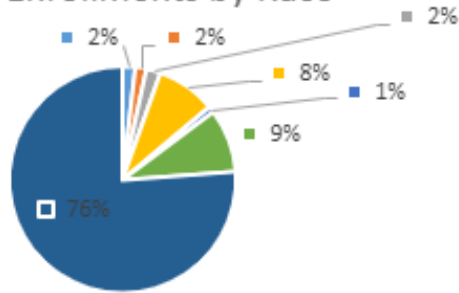
Success Rate by Age



Race

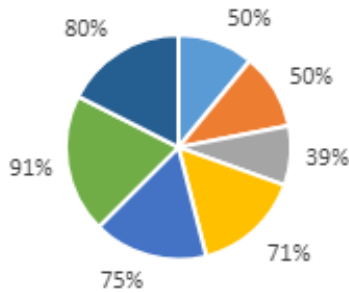
Key takeaways: Latinx students have the highest success rate at 71%, followed closely by White students at 80%. Black or African American students have a lower success rate of 39%, which is notably lower than the average success rate for all students (78%).

Total Enrollments by Race



- American Indian/Alaskan Native
- Asian
- Black or African American
- Latinx
- Native Hawaiian or Pacific Islander
- Unreported or Unknown
- White

Success Rate by Race



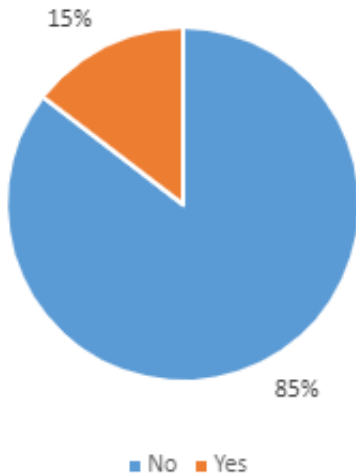
- American Indian/Alaskan Native
- Asian
- Black or African American
- Latinx
- Native Hawaiian or Pacific Islander
- Unreported or Unknown
- White



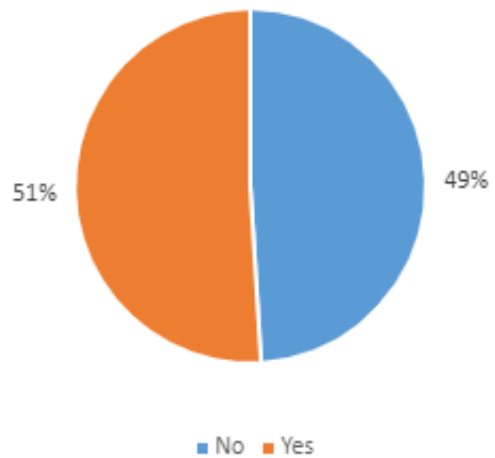
Athletes

Key takeaways: Athlete students (Y) make up a smaller proportion of the total enrollments (129 out of 885), but they have a slightly higher success and retention rate compared to non-athlete students (N).

Total Enrollments of Athletes



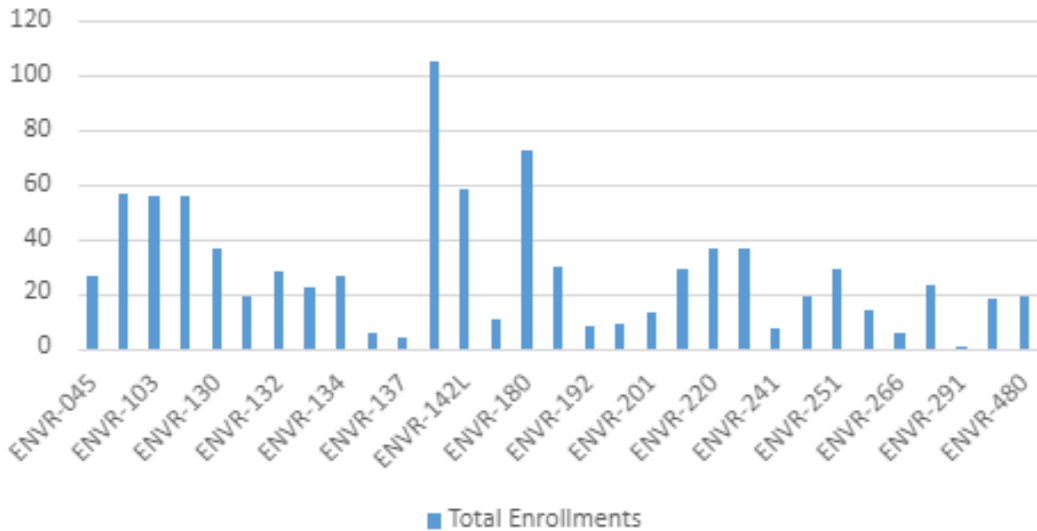
Success Rate of Athletes



Course

Key takeaways: Courses such as ENVR-045, ENVR-131, ENVR-135, ENVR-137, ENVR-241, ENVR-291, ENVR-299, and ENVR-480 stand out with 100% success rates. Courses such as ENVR 102, ENVR 142, and ENVR 250 all had success rates under 70%.

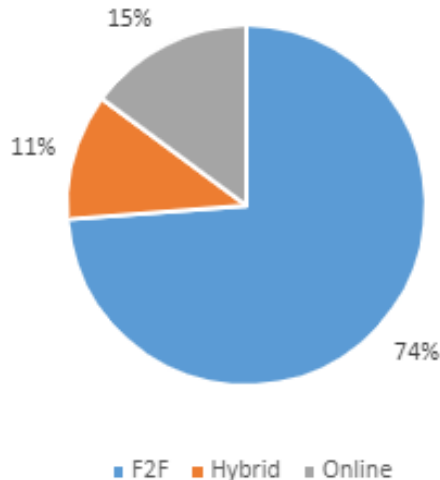
Total Enrollments by Course



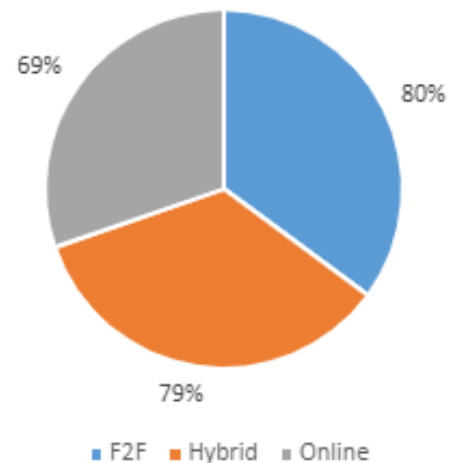
Instruction Method

Key takeaways: Face-to-Face (F2F) instruction has the highest success rate at 80%, followed closely by Hybrid instruction at 79%. Online instruction has a lower success rate of 69%.

Total Enrollments by Instruction Method



Success Rate by Instruction Method



4. Are there differences in course retention and completion rates between in-person/on campus, online/hybrid courses and ISP courses as applicable? Explain.

Face-to-Face (F2F) Instruction (80% Success Rate): The relatively high success rate for F2F instruction can be attributed to several factors. In traditional classroom settings, students have face-to-face interaction with instructors and peers, which can enhance engagement, motivation, and accountability. Students may benefit from immediate feedback, structured schedules, and the physical presence of a supportive, hands-on learning environment.

Hybrid Instruction (79% Success Rate): This approach can offer the advantages of face-to-face interaction while providing flexibility through online components. The success rate for hybrid courses is close to F2F rates, suggesting that students benefit from the mix of in-person and online experiences.

Online Instruction (69% Success Rate): Online courses often have a lower success rate due to unique challenges associated with remote learning. These challenges may include limited face-to-face interaction, a need for strong self-discipline and time management skills, and potential technical difficulties. However, online courses also offer flexibility that can accommodate students with work or family commitments.

5. What has or might be done to improve course completion and retention rates?

Student-instructor and student-student relationships very important in improving completion and retention. Overall, I think we do a good job of reaching out to students who seem to be struggling, or fall of the map. However, we are juggling lots of balls trying to roll out a new program and we do serve a disproportionate number of older, returning students within in our program. Many of these students of complicated live situation and family responsibilities that students make it difficult for them to complete a course or a semester. We hope to reinvigorate our mentorship program that started before COVID as we roll out our new BDP. Hopefully this improved one-on-one contact will help improve success and retention as well as helping students meet other life and post-educational work goals.

**6. What has been done to improve the number of degrees and certificates awarded?
Explain.**

This is an area where we have room for improvement.

We have significantly increased advertising for our program from essentially no advertising a few years ago to significant outreach by way of 1) attending high school and college fair events, 2) hosting events here on campus and in Quincy to get the word out about our new program, 3) creating program advertisement videos with the help of Nick Maffei and outside contractor, 4) we have updating our website, etc.

Once students are here on campus we hope that better communication with students, more streamlined advising, etc. will improve these metrics. For example, now in our ENVR 103 course we go over program requirements, how certificates and degree can be stacked, alternate pathways, etc. Hopefully education helps students see options.

WE also know that better summer job placements and internship programs that are connected to the college improve retention.

We also hope the four-year degree will improve cohort building and overall program retention.

PHYSICAL RESOURCES

1. Describe the facility and resource needs of the program. Link these needs to student learning and overall program goals.

Type 6 Fire Truck:

The purchase of a Type 6 fire truck is a significant investment that directly enhances student learning. It provides a hands-on, practical tool for students to gain real-world experience in conducting prescribed burns, a crucial skill in ecosystem restoration and fire management. This practical experience not only enriches their education but also prepares them for careers in this specialized field.

The acquisition of a fire truck aligns with program goals by enhancing the quality and comprehensiveness of the curriculum. It ensures that students have access to the necessary equipment and experiences to develop expertise in ecosystem restoration and fire management.

Slip-In Pump System for the Ranger:

The slip-in pump system not only enhances the safety of prescribed burns by providing quick access to water but also serves as a valuable learning tool. Students can gain practical experience with pump systems, which are vital for fire management and environmental restoration efforts.

Incorporating this equipment aligns with program goals by enriching the curriculum with hands-on learning experiences. It ensures that students are well-prepared with practical skills and knowledge related to fire management, contributing to their overall success in the program.

Fire and Fuels Non-Instructional Building + Outdoor Classroom

We hope to construct a non-instructional storage and staff office building for our fire equipment and forest health folks. Running an effective program has required and will continue to require us to procure lots of fire, forestry, safety, etc. equipment. We need more and a centralized space to effectively sort and access that equipment. In particular, facilities to house the fire truck during the winter are essential for its maintenance and longevity. By protecting the vehicle from the elements, students can continue to use it as a learning tool throughout the year, rather than it being sidelined due to weather-related damage. We also hope to construct an outdoor classroom space near this new building to allow us to hold outdoor training events on campus more successfully.

ADVISORY COMMITTEES

- 1. If there is a program advisory committee, list the names and titles of members, and the meeting dates since the last program review. Describe any advisory committee involvement in this program review.**

FRC: Bridget Tracy (Faculty), Dana Flett (Faculty), Derek Lerch (VPI), Jon Dvorak (Forest Health and Fuels Coordinator) John Sheehan (Board) Guy McNett (Board)

Partners: Ryan Tompkins (UCANR), Jonathan Pangburn (CAL FIRE), Jake Blaufuss (SPI), Don Fregulia (Plumas National Forest), Ryan Bauer (Plumas National Forest), Micheal Hall (Feather River RCD), Julia Sidman (Feather River RCD), Hannah Hepner (Plumas Fire Safe Council), Danielle Berry (Sierra Institute), Lynn Campell (SNC)

Over the last couple of years, our advisory committee has been mostly focused on providing feedback for our new bachelor's program. They have been very helpful in providing advice about necessary SLOs and certifications than should be built into a successful program.

Program Goals Moving Forward

- 1. Given the analyses and reflection in this CPR, what are the goals of this program in the coming year?**

Start a Bachelor's Degree Program

- Hire faculty
- Finalize curriculum and get curriculum approved at local and state level
- Advertise program and recruit students
- Develop BDP “application” process
- Develop advising systems and tools
- Secure equipment for teaching larger cohorts of LD courses and new UD courses.
- Continue process of professional development necessary to maintain current skills and additional skills necessary to effectively teach new, more advanced course
- Maintain and build on regional employer relationships to improve program and job placement
- Secure grants to support the program

Secure Equipment and Restructure Forest Health Position for Improved Campus Safety and Fuel and Fire Training

- Get the fire truck
- Begin process of building a new “fire and fuels” non-instructional building on campus.
- Secure grant funds to support the program