Comprehensive Instructional Program Review Self-Study

OVERVIEW OF PROGRAM REVIEW

The Comprehensive Instructional Program Review Self-Study (CIPR), conducted every six years, is a structured opportunity to gather, analyze, and reflect on data related to individual programs or program groupings within Academic Clusters or Areas of Study. The primary purpose of the CIPR is to support continuous improvement by evaluating the overall health of a program and identifying meaningful, actionable recommendations.

In the years between CIPRs, departments engage in Annual Planning, which informs and is summarized within the Self-Study. This process aligns with the College's five-year planning model, ensuring that short-term goals and long-term strategies are integrated.

At the conclusion of each CIPR cycle, the final report is posted to the Program Review Committee (PRC) webpage and shared with the College Council. All instructional programs, whether standalone or part of a defined grouping, are required to participate. Career and Technical Education (CTE) programs with separate accreditation processes may coordinate with their dean to streamline overlapping requirements. Additionally, biennial CTE Mini-Reviews are incorporated into the CIPR.

The PRC acknowledges that the CIPR is a more in-depth and time-intensive process than the previous two-year reviews. We deeply appreciate the contributions of all faculty and staff involved, especially those serving on the Gold, Silver, and Green Teams, who help ensure each report is thorough and meaningful. Thank you for your dedication to this important work!

HOW ARE PROGRAMS SELECTED FOR REVIEW

The PRC maintains a master schedule of all programs, Academic Clusters, and Areas of Study, including a multi-year forecast of planned review cycles. Each year, the committee collaborates with Division Deans to update this schedule and determine which programs will participate in the upcoming cycle. Teams are formed in early fall, and timelines for the year-long review process are distributed.

Each fall, Comprehensive Program Review Evaluation Teams are assembled and include:

- **Gold Team** – Writing Team
- **Silver Team** – Draft Review Team
- **Green Team** – Final Evaluation Team

Important timelines and resources are available on the *Planning Support* Canvas page and in the *Program Review Handbook*, which is posted on the PRC webpage.

ABOUT THIS SELF-STUDY

Before starting your current CIPR, you will complete a brief reflection on outcomes from prior planning efforts. The CIPR is organized into five required sections, varying in depth. We recommend reviewing all sections in advance to understand the scope and how each part connects. Notably, each section's analysis should inform and lead into Section 5 (Summary and Future Plans), which synthesizes your findings and outlines future goals.

The five sections are:

1. Mission and Learning Outcomes
2. Instructional Practices
3. Program Data Analysis
4. Curriculum
5. Summary and Future Plans

Program(s) Under Review

DRAFT submission and date: 11/14/2025

FINAL submission and date: *Click or tap here to enter text.*

Check the option that applies to this CIPR:

☐ This Self-Study considers a single degree or certificate.
Enter the name of the degree or certificate:
Click or tap here to enter text.

☒ This Self-Study considers multiple degrees and/or certificates organized by Areas of Study or Academic Cluster.
List Name of Areas of Study or Academic Cluster:
Natural Resources

List each degree or certificate associated with the Areas of Study or Academic Cluster:
Agriculture-Natural Resources AS
Agriculture-Forest Science and Technology AS
Agriculture-Natural Resources Certificate

Please note: *In some sections of the Self-Study it may be appropriate to report on individual program outcomes rather than academic cluster outcomes, such as PLOs that are distinct vs shared.*

Background Information

PRIOR PROGRAM REVIEW and ANNUAL (formerly Area Plan) PLAN REFLECTION

Last Program Review Term and Year: *Click or tap here to enter text.*

1. Revisit the goals from your *last* program review and annual plans. Briefly identify which goals have been achieved, which are in progress, and what evidence demonstrates impact? List any resources your program received to support student learning improvements.

   The Forestry and Natural Resources Program has successfully applied for Society of American Foresters (SAF) accreditation. This means that students who successfully complete the program will be able to use their education at Shasta College towards the 7-years of experience required to qualify for the Registered Professional Foresters exam. The program qualifies for the accreditation due to the hiring of another full-time faculty member. This position is grant-funded, but an application for putting the position on the general fund has been submitted and is in progress.

(CTE programs may wish to include references to any external accrediting or regulatory agencies).

SAF Accreditation Handbook

Current Comprehensive Instructional Program Review

We engage in this process with the ultimate goals of enhancing program effectiveness and advancing student success and achievement. Completing the Comprehensive Instructional Program Review should be a collaborative effort, involving input from a broad range of stakeholders. Additional guidance on team roles and responsibilities is available in the *Comprehensive Instructional Program Review Handbook* and on the *Planning Support* Canvas page.

Year of Current Review: ***2025***

List Gold Team Member(s): Karine Hunt and Melissa Markee

List Silver Team Captain: Will Breitbach

List Green Team Captain: Will Breitbach

1. MISSION AND LEARNING OUTCOMES

1. *Alignment with Mission: Describe how the program contributes to the Shasta College mission. Include discussion of some of the program's successes and benefits to the students and/or community (ACCJC Eligibility Requirement 6, Accreditation Standard 1.1, 1.5, 2.9).*

As part of the SAF Accreditation process, the following "program statement of purpose" has been adopted. Similarly to the Shasta College Mission, this statement includes aspects of diversity, equity, quality instruction and student support. The statement also addressed some benefits the program provides to our students.

"The Shasta College Forest Science and Technology degree program prepares students for rewarding careers in forestry and natural resource management. Our curriculum integrates biological, ecological, social, and economic sciences, providing students with a comprehensive understanding of forest ecosystems and the complex challenges facing today's forests.

Students are trained to focus on the entire ecosystem, learning to apply ecological principles to manage forests for a wide range of values—including biodiversity, clean air and water, recreation, and wood products—while balancing various environmental, economic, and social priorities. Through coursework and field experiences, students develop the skills to address the enduring interests of community members, property owners, broader society, and the natural world, ensuring that forest management practices are sustainable, fair, and responsive to all stakeholders.

The program values both current scientific understanding and longstanding ecological knowledge from Indigenous and local communities, integrating these perspectives to foster a comprehensive approach to forest stewardship. Students gain hands-on experience in timber inventory, harvest plan layout, ecosystem restoration, wildlife surveys, and the use of modern tools and technologies such as GIS, preparing them for technician-level roles and further academic pursuits."

As discussed in the data section, the program has seen growth in enrollment and degree/certificate completion over the past 5 years. Students are regularly finding employment with local businesses, non-profit organizations, and government agencies. The work done by students in this field is critical to protecting, maintaining, and managing the abundant natural resources in our region.

2. *Describe any current or recent challenges that might hinder students in the program from reaching their goals.*

The main Shasta College campus can be a challenge for students commuting from rural communities in Trinity and Tehama counties that are highly connected to forests and natural resources. To address this issue, hybrid or fully online modality for courses is offered to make the program more accessible to students. Within the community college student body, many individuals work while taking classes and are the primary source of income and care for their families. To face this issue within the program, thoughtful course scheduling is planned to limit transportation needs and allow students to continue to work while attending school.

3. *List each PLO and write a brief narrative summary analysis discussing outcomes for each of them. If not assessing PLO's at the time of this report writing, list each PLO and attach your plan and timeline to complete assessments (Accreditation Standard 2.2, 2.9):*

   - *Assessment results should include overall success rate on assessment, and as appropriate, provide outcomes achievement data by mode of delivery by courses. Multiple years of data should be used when available.*

There are 9 program learning outcomes for the Forest Science and Technology and Natural Resources Degrees:

1. Have the appropriate coursework and field experience to pursue forestry/seasonal technician jobs or to transfer to a university in a forestry/natural resources-related field. [1,2]

- This PLO is addressed in all of the classes that are part of the Forest Science and Technology AS curriculum. Students completing the courses with passing grades satisfy this objective

2. Be able to properly identify common species of trees and shrubs native to the western US by their scientific and common names and to discuss general uses, site characteristics, and geographic distributions of these species.[1]

- This PLO is addressed through the completion of Native Plant Identification (AGNR 6) and reinforced in other courses, including Natural Resource Measurements (AGNR 50), Silviculture (AGNR 51), Forest Protection and Health (AGNR 53) and Forest Ecology (AGNR 65)

3. Be able to use a taxonomic key or field guide to correctly identify unknown species of plants, birds, mammals, and aquatic invertebrates to the level of genus.[2]

- This PLO is addressed through the completion of Native Plant Identification (AGNR 6) and reinforced in other courses, including Natural Resource Measurements (AGNR 50), Silviculture (AGNR 51), Forest Protection and Health (AGNR 53) and Forest Ecology (AGNR 65)

4. Be able to apply knowledge of the silvicultural treatments used to regulate stand, composition, regenerate stands, increase growth rates, and improve timber quality.

- This PLO is addressed through the completion of Silviculture and Fire Ecology (AGNR 51), Forest Protection and Health (AGNR 53), and Introduction to Forest Operations (AGNR 55).

5. Be able to apply skills in the safe use and maintenance of tools and equipment.

- This PLO is addressed through the completion Natural Resource

Measurements (AGNR 50), Silviculture and Fire Ecology (AGNR 51), and Introduction to Forest Operations (AGNR 55).

6. Be able to apply computer skills using forestry-related software.

- This PLO is addressed through the completion of the Shasta College computer literacy requirement (students often use Computers for Ag and Natural Resources (AGNR 52) to complete this requirement). Other classes taken throughout the program incorporate computer skills and forestry-related software.

7. Be able to select and implement an appropriate protocol following the scientific method to collect, statistically analyze, evaluate, and document original research data.[1,2]

- This PLO is addressed in all courses that are part of the Forest Science and Technology AS degree.

8. Be able to accurately navigate in the field using maps, compass, a global positioning system (GPS). Students will also be able to use GPS for field data collection and geographic information systems (GIS) for data mapping and display.

- This PLO is addressed through the completion of Maps and Geospatial Principals (GEOG 9) and Introduction to Geographic Information Systems (GEOG 10).

9. Be able to evaluate basic theory, concepts, and ecological principles as they apply to forestry, wildlife, water resources, and ecosystem restoration and will use his/her cumulative skills to think critically and to work out possible solutions to address problems facing natural resources managers today and in the future. [1, 2]

- This PLO is addressed in all courses that are part of the Forest Science and Technology AS degree.

1= Forest Science and Tech AS, 2= Natural Resources AS

2. INSTRUCTIONAL PRACTICES

1. *In this section, work on deliberative discussions with varied stakeholders and partners. Describe how your program promotes students' sense of belonging, connection, and engagement? (examples: outside learning experiences, project celebrations, and clubs) (Accreditation Standard 2.8)*

One goal of the Forestry and Natural Resources program is to foster connection amongst students within the program. We recognize that encouraging an internal support system for students and facilitating teamwork can directly impact students' success during their time within the program. The Forestry and Natural Resources Club (F/NR) has adopted the stretch of

county road in front of the college campus for trash clean-up. This event provides students with interaction outside of the classroom setting, instills a sense of pride in community and the college campus, and presents an opportunity for discussion amongst each other and those on campus around them about the importance of sustainability and being better stewards of the land.

The FNR Program has two main clubs: the Forestry and Natural Resources Club (F/NR) and the Logging Sports Club. The F/NR Club hosts weekly meetings, adopt-a-highway clean-ups, club hikes, and assists with on campus events such as FFA Field Day and Forestry Challenge, and tables at college and community events. The Logging Sports Club meets at least once a week for practices and participates in local events such as the Sierra Cascade Logging Conference.
Additionally, courses within the FNR Program are designed to foster interaction among students regardless of the modality of the course. Students often work in groups or participate in group discussions as part of their weekly coursework. Within the courses, students are also taught about the resources, organizations, clubs, and facilities available to them on campus. This helps students feel a sense of belonging and equips them with the resources necessary to help navigate the challenges and stresses they may face.

Students can be featured in the Forest Health End of Year Report or on the social media pages. This recognition fosters inclusion and gives students a sense of pride in the work they are doing and accomplishments they have made. The Agriculture and Naturals Resources Programs hosts a “Chill and Grill” event each spring to celebrate the students that are graduating from the division’s programs. At this event, students and family attend a dinner with faculty and staff to celebrate the upcoming graduation. Following dinner, an awards ceremony is held, and each program recognizes a student for their outstanding achievement.

Students within the FNR Program are encouraged to join the California Forest Mentorship Program (Forestry & Natural Resources Career Mentorship Program). The goal of the program, whether mentee or mentor, is to connect students and professionals to foster an engaging network amongst individuals from diverse backgrounds and increase retention of new professionals.

2. *Explain how collaboration between this program and academic support and student services takes place* (*Accreditation Standard 2.7, 2.8*).

The FNR Program has numerous employees that offer support to students and faculty. These include our full-time Program Coordinator for Outreach and Recruitment, full-time Student Services Specialist, full-time Student Success Facilitator, and three full-time Administrative Professionals. These positions provide numerous services including but not limited to services to students to improve retention, completion, graduation, and/or transfer rates, assisting students with enrollment, connecting students to resources (financial, academic, technology, health and wellness, and personal support), matriculation, and answering questions general questions regarding the campus and FNR Program.

Although not part of the BACTE division, there are two interest area academic councilors, Nickie McGarry and Haley Carter, with a focus on advising students in the Earth and Environment area, which includes forestry and natural resources students. These counselors assist students with education planning, recommended classes, degree requirements, and registration for courses.

Students are encouraged to reach out to these support service staff to ensure their success and to provide guidance for their time within the program.

3. *Describe institutional partnerships with other schools, businesses, or organizations* (*Accreditation Standard 2.2*).

The FNR Program has an Advisory Committee that is made up of individuals from industry and government agencies. This committee oversees the program and meets with the program's faculty and staff for annual meetings. During these meetings faculty and staff can address issues and request feedback on curriculum changes. Advisory Committee members can provide concerns and suggestions for improvement within the program.

Through these meetings, the faculty and staff in the FNR Program can deliver on needs within the industry and facilitate networking relationships amongst those within the forestry and natural resources profession. Additionally, these members of the Committee can connect with faculty to relay job and internship opportunities to students which in turn benefits the students directly. Job postings are frequently shared with faculty and passed along to students. This is done through online course postings, in class announcements, and a physical jobs bulletin board. As more students from the FNR Program enter the workforce and establish themselves as capable professionals, the program continues to gain more confidence and respect from local and regional employers.

In recent years, the program has participated in cultivating relationships with the Maidu Summit Consortium, attending field trips to learn about tribal land management and gaining field experience in CEQA protocols.

Courses often invite guest speakers to provide diverse prospectives on forest management. Speakers include representatives from federal government agencies (USFS, NPS and BLM), state government (California Department of Forestry and Fire Protection), industrial timberland managers (Sierra Pacific Industries, W.M. Beaty and Associates), tribal land stewards (Maidu Summit Consortium), Logging Contactors (Creekside Logging) and others.

Shasta College also has a Memorandum of Understanding with Sierra Pacific Industries that provides the FNR Program with the ability to take field trips on the 71,673 acres of Sierra Pacific Industries Lassen District.

In addition, the FNR program possesses a Memorandum of Understanding with the California Department of Forestry and Fire Protection (Cal Fire) Shasta-Trinity Unit that allows field trips and learning opportunities on the LaTour Demonstration State Forest. In June of 2025, Shasta College and the Shasta-Trinity Unit signed an amendment to the agreement to include the department's newly acquired Demonstration State Forests of Big Bend, Miller, and Noble, increasing the acreage of available "outdoor laboratories" to the program.

4. *Describe* collaboration between *full-time, part-time faculty, and dual enrollment partners that promote student achievement and learning within the program.*

Course shells for AGNR 1 and 60 have been shared with part-time and dual-enrollment instructors to improve the consistency of material being taught. Similarly, course shells,

coursework and other teaching materials are actively shared amongst full-time faculty.

Introduction to Natural Resources (AGNR-1) and Environmental Science (AGNR-60) have been dual-enrolled with Anderson, Central Valley, Corning, Hayfork, Shasta View Academy and Trinity High Schools. Having three classes dual enrolled with local high schools provides an exciting opportunity to recruit new students into the Forestry and Natural Resources area.

5. *When multiple sections of the same courses are taught in varied modalities (e.g., online, hybrid, f2f) and by different instructors, explain the processes and strategies used to establish and maintain academic standards and consistency.*

The two full-time Forestry and Natural Resources faculty actively share materials, syllabus layout and formatting, textbooks, activities and lab assignments to ensure a cohesive learning experience for students. This also rules out the chance for repetition to happen in courses. The program also actively shares coursework design, class coursework schedules, and course materials on Canvas to ensure that the same courses taught my different instructors are consistent and in line with curriculum.

Like above, faculty compare and utilize similar course design (syllabi, activities, discussion posts, labs, field trips, etc.) to ensure consistency. The two full-time faculty maintain similar course policies within their syllabus to keep courses as consistent and stable for students as possible. This ensures students' comfort and understanding of policies and expectations. Faculty try to utilize free course resources to keep costs down for students and ensure accessibility to all.

Consistent collaboration among faculty within the program has been relied upon heavily and has contributed to the success of students and faculty alike.

6. *Describe how faculty ensure online courses are accessible (ex., Accessibility Check, and universal design) and maintain regular and substantive interaction with students in their online classes to promote engagement and learning. (ACCJC Distance Education Policy, Standard 2.6)*

Faculty ensure RSI requirements are met by interacting with students at least twice weekly through announcements, discussion posts, and feedback on assignments. In addition, faculty members are encouraged to participate in RSI check ins with Shasta College Online Learning staff to evaluate the RSI in courses. Likewise, faculty have access to accessibility and RSI trainings at FLEX Day and both full-time faculty have participated in these events. Ongoing work is being done to minimize the use of PDFs and use of the accessibility checker (UDOIT) to continuously improve accessibility of online content.

3. PROGRAM DATA ANALYSIS (Standard 1.3)

Relevant data is found on the Institutional Research Intranet page within the "Instructional Program Review" folder. Strong narrative responses will reflect a clear understanding of the data and identified trends. When discussing contributing factors, focus on those within the department's sphere of influence—such as pedagogy, curriculum design, instructional modality, course location, short-term or late-start offerings, and alignment with general education requirements.

Proposed strategies and interventions should be data-informed, actionable at the department level, and accompanied by measurable outcomes. They should also include realistic short-term timelines and align with broader, aspirational goals. These goals should be clearly articulated in Section 5 (Summary and Future Plans).

Program Completion (*Dashboard Tabs: Awards, Award Demographics, Time to Degree) (Accreditation Standard 2.5):* Identify challenges and opportunities for the program. Proposed strategies/interventions should be informed by the data, within departmental control, have measurable outcomes, and include practical short-term timelines and aspirational goals. **These goals should be reflected in Section 5.**

1. *Review the number of degrees and/or certificates awarded. If fewer than 10 were conferred for any award, identify possible factors contributing to the low number. Describe any planned actions the program will take to improve completion and increase the number of graduates. If an individual award has had fewer than 10 completers annually for each of the past five years, discuss the potential for program discontinuance with your area dean and summarize the outcome of that discussion in your response. (Accreditation Standard 1.3)*

The number of students completing degrees and certificates in forestry and natural resources has historically not exceeded 10 students per year. This is a small program, and many students are not aware of career opportunities in the sector. Between 2020 and fall 2023, there were some courses we were unable to offer due to staffing. The addition of a second instructor (hired spring 24) and consistent course offerings may be responsible for recent increases. Another problem has been students who transfer without applying to graduate from Shasta College. We have discussed how to work on promoting the completion of graduation application in class and encouraging transferring students who may be missing a Shasta College course to transfer their units back so they can have both their AS and BS degrees.

Degree/Certificate	*2020-21*	*2021-22*	*2022-23*	*2023-24*	*2024-25*
AS: Natural Resources	*1*	*4*	*3*	*3*	*6*
AS: Forest Science and Tech	*2*	*6*	*5*	*3*	*4*
CERT: Natural Resources	*0*	*2*	*0*	*13*	*2*

2. ***Equity:** Does the program's award distribution reflect Shasta College's student population? Which groups are over or under-represented? What will the department do to improve the equity of the awards conferred? (Accreditation Standard 1.3)*

There is very little difference between the Shasta College demographics and those found in AGNR classes. The one place where there is notable variation is for gender, with the award demographic being slightly higher than college wide for females. This is surprising to see given that the workforce is forestry and natural resources is male-dominated and not what is observed by instructors in individual classes. We will be looking into this issue and some of the pertinent resources on the success of males in higher education to see what approaches would fit for our courses and program.

	Race/Ethnicity	*Gender*	*Age Group*						
	Hisp.	*White*	*Other*	*F*	*M*	*18-*	*25-*	*30-*	*40-*

						24	*29*	*39*	*49*
College Demographic	*19.9*	*61.3*	*18.8*	*59.0*	*40.6*	*46.4*	*10.4*	*20.3*	*8.9*
Award Demographic	*17.4*	*64.1*	*18.4*	*63.5*	*36.3*	*46.1*	*12.2*	*19.2*	*8.6*
All values reported as percentages									

3. *Is the median time to a degree within a three-year window? If so, what do you contribute to timely completion? If not, what factors within the program's control can help improve median time to completion (e.g., rotation schedule for required courses, identifying and reducing bottlenecks, limiting the number of excess units)? (Accreditation Standard 2.5)*

Data is only available for 2022-2023 and the Natural Resources certificate. This data captures 2 students (the third student is not represented in the data set). This is not enough data to evaluate the time to degree completion as one student had a completion time of 2.2 years, and the other was 8.8 years.

In the past two years, with the addition of a second full-time instructor, classes have been offered on a consistent schedule, which should improve timely completion of degrees.

Enrollments *(Dashboard Tab: Enrollments and Demographics)*

4. *Discuss program enrollment growth and decline trends (reflect enrollment data at the course and section level). What interventions will be implemented to increase enrollment?*

Both headcount and enrollment have shown consistent annual growth over the past 5 years. There have been no recent years with a decline in enrollment. Consistent course offerings and greater awareness of the importance of natural resource management (largely due to catastrophic wildfires) are possible explanations for the growth observed.

	2020-21	2021-22	2022-23	2023-24	2024-25
Headcount	349	416	440	458	485
Enrollment	493	565	578	649	691

CTE Programs Only

(For the following questions cite your sources for data. Examples of data sources can include Perkins Core IV, DataVista - Strong Workforce data. Also, any other review of relevant external databases. https://www.shastacollege.edu/faculty- staff/institutional-effectiveness/research-reports/ Institution-set Standards under Outcomes Reporting. CTEOS data under Career Education)

- *Summarize current labor market trends and data that demonstrate demand for graduates in this field. If the labor market trends have consistently declined, and/or the number of individual awards conferred has been less than 10 annually for the past five years, discuss the option of program discontinuance with your area dean and summarize the discussion in the response.*

The job market in forestry and natural resources is anticipated to have a workforce shortage and continued demand in the future. Two relevant data points were found on labor market data trends and are included below:

"The emerging climate-resilient landscapes sector has the potential to grow into a $39 billion industry with 177,000 jobs in California. There are projected shortages of 6,000 fire managers, 4,000 conservation scientists and foresters, 7,000 loggers, and 1,500 utility line clearance technicians, which are well-paying jobs with benefits. The magnitude and urgency of the need for skilled workers and the potential for growth calls for disruptive innovation in how workforce training programs collaborate with industry."

Source: Foundation for California Community College, California Resilient Careers in Forestry

Table 1. Long-Term Occupational Projections (2018-2028) in California, 2018.

Occupation	Base	Projected	Change	% Change	Avg. Annl. Openings
Conservation Scientists	2,000	2,300	300	15	240
Environmental Science and Protection Technicians, Including Health	3,700	4,100	400	10.8	510
Environmental Scientists and Specialists, Including Health	15,000	16,600	1,600	10.7	1,860
Firefighters	33,800	35,100	1,300	3.8	2,470
First-Line Supervisors of Fire Fighting and Prevention Workers	3,000	3,100	100	3.3	200
Forest and Conservation Technicians	6,800	7,100	300	4.4	860
Forest and Conservation Workers	2,800	2,500	-300	-10.7	440
Logging Equipment Operators	1,800	1,700	-100	-5.6	270
Soil and Plant Scientists	3,300	3,800	500	15.2	440
Surveyors	4,600	4,900	300	6.5	370
Woodworkers, All Other	2,500	2,600	100	4	330
Woodworking Machine Setters, Operators, and Tenders, Except Sawing	4,600	4,500	-100	-2.2	620

Source: Forest Sector Workforce Study Report, November 2021

- *Using current data metrics available, compare program outcomes to Institution-Set Standards for job placement and address hiring percentages.*

We were not able to find job placement data for our programs in DataVista or Perkins reports.

Course Retention and Success Rates *(Dashboard Tabs: Success/Retention, Success/Retention by Course, DI Demographics)* Identify challenges and opportunities for the program. Proposed strategies/interventions should be informed by the data, within departmental control, have measurable outcomes, and include practical short-term timelines and aspirational goals. **These goals should also be reflected in Section 5.**

A note about Disproportional Impact (DI): Occurs when a subgroup of students is achieving an outcome at a rate/percentage substantially lower than those in the other subgroups.

5. ***Retention Rate:***

A. *How does the program's retention rate compare to the college average?*
The retention rate for the forestry and natural resources area has an average of 86.8%, which is nearly identical to the college's 5-year average of 86.7%

Year	*2020-21*	*2021-22*	*2022-23*	*2023-24*	*2024-25*
Retention Rate	***82.8%***	***83.4%***	***85.9%***	***89.5%***	***90.0%***

B. *Discuss the program's 5-year retention rate growth or decline trends (reflect on data at the course and section level).*
The retention rate has been increasing over the past 5-years. A likely explanation is the return to face-to-face and hybrid classes after the pandemic.

C. *What interventions will be implemented to increase retention rates overall?*
We do not feel anything are needed at this time in increase retention beyond current practices.

D. ***Equity:*** *Do the Disproportionate Impact Indicators (DI indicators) show any groups having retention rates in program courses disproportionately below their peers? What specific strategies/interventions will the program employ to move these groups out of DI? (Accreditation Standard 1.3)*
There were no disproportionate impacts indicated for the retention of any groups.

6. ***Success Rate:***

A. *How does the program's success rate compare to the college average and Institution-set Standard?*
Except for 2021-22, the area has slightly exceeded the institutional set standard of a 72% success rate.

Year	*2020-21*	*2021-22*	*2022-23*	*2023-24*	*2024-25*
Success Rate	***75.6%***	***71.5%***	***73.6%***	***76.8%***	***74.3%***

B. *Discuss the program's 5-year success rate growth or decline trends (reflect on data at the course and section level).*
The program success rate has been consistent over the past 5-years, which is surprising given the impacts of the pandemic in 2020-2022. The only course with a notable lower success rate is Environmental Policy and Law (AGNR 12). This is a fully online course and has had issues with fraudulent students that may be impacting the data. It is also possible that Forestry and Natural Resource students would do better in a face-to-face course, which tends to be their preferred modality.

C. *What interventions will be implemented to increase success rates overall?*
We will continue to foster a sense of belonging of all students in our forestry and natural students. We are currently working with a handful of club members to develop ways to get more student involvement in the club, which should build a sense of community and strengthen student relationships with each other. We will continue our involvement with the California Foresty Mentorship Program to connect students with career professionals. We are also modifying courses to include diverse perspectives on natural resource management, including traditional ecological knowledge and indigenous land management practices.

D. *Equity: Do the Disproportionate Impact Indicators (DI indicators) show any groups having success rates in program courses disproportionately below their peers? What*

specific strategies/interventions will the program employ to move these groups out of DI? (Accreditation Standard 1.3)

No Disproportionate Impact Indicators were identified for age or gender for both success and retention rates. For race/ethnicity, there was not a Disproportionate Impact Indicators for retention, but action was advised under the success rate for black of African American students. This impact is not identified when AGNR 60 (Environmental Science) is removed from the dataset. The impact my be addressed by practices such as normalizing help-seeking, notification of resources available, such as the writing center, especially for online course, including the Umoja program when presenting support resources to students.

4. CURRICULUM

Although courses are reviewed as they come due, independent of associated inclusion in programs every 5 years, PRC recommends a review of all courses in a program as part of this Self-Study. Below are the minimum recommendations for this report.

1. **Challenges to offering key courses**
   Briefly explain any challenges to offering key courses in order for students to complete their degree or certificate in a timely fashion. (Accreditation Standard 2.5)

Some of the challenges the program experiences offering key courses (AGNR 6, 50) are limited instructor availability to teach multiple sections due to increased enrollments and faculty load limits, limited time space and classroom conflicts amongst courses for the program, and daytime course scheduling that limits working students' ability to take the program courses.

Within the FNR Program, we are examining the possibility of building out a new, alternative schedule that would accommodate students that are unable to attend classes during the week and would offer the ability to take and complete course labs on weekends.

Program Design

2. *Are there any unnecessary or bottleneck courses that prevent students from completing the program? Could those courses be made optional? For example, there could be a required course with low interest (based on enrollment). This would prevent students from completing an award. Alternatively, legacy math and English requirements could no longer be appropriate.*

Work Experience Education (AGNR 94) may be a problem. We have discussed the course with our advisory committee, and they feel that the work experience is highly valuable for students and critical to workforce preparation and understanding the demands of forestry and natural resources work. We are planning to add alternative option for a field studies class for shorter-term commitment and removes the need for finding a workplace.

3. *How will the program be changed to allow for stacked certificates/awards without adding units? Reach out to Interest Area Counselor for suggestions and alternative approaches. Include timelines and action items.*

The current Natural Resources Certificate stacks with the Natural Resources AS degree. In the upcoming curriculum cycle, we will investigate modifying the certificate so that it also stacks with the Forest Science and Technology AS.

4. *Review the "Course Schedule" tab on the dataset and identify the courses in your program that have not successfully run in 2 or more years. Justify keeping the course active or note the course for deactivation. (ACCJC Eligibility Requirement: 20)*

   The only course identified in the data set that has not been deactivated is Environmental Ethics (AGNR-11), which has not been offered in eleven years. It is not required for any degrees or certificates. This course has not been deactivated as it is being evaluated for meeting CalGTCE requirements. If it is not approved for CalGTCE, we will be deactivating the course for the 2027-2028 catalog.

5. *In consultation with your dean, describe how our current course scheduling helps or hinders efficient program completion (Accreditation Standard: 2.5)*

The current course scheduling is designed in a way to allow students to progress through the program while gaining the necessary foundational concepts and background knowledge to be successful in both the field and future courses. Many of the lectures and labs are offered in-person, hybrid, or fully online. In-person courses are offered throughout the week on a daytime schedule.

In the Forestry and Natural Resources Program, we are examining the ability to offer an alternative schedule that could accommodate students that are unable to attend courses during the week and would offer a weekend in-person lab schedule.

Credit for Prior Learning Opportunities (https://www.shastacollege.edu/counseling/credit-for-prior-learning/)

6. *Which courses within your program lend themselves to CPL opportunities? What is the plan to develop or expand the existing CPL opportunities?*

Credit for Prior Learning opportunities are evaluated on a case-by-case basis. Students can request CPL for previously taken classes and for work experience. Faculty may evaluate the student's knowledge and understanding of the course materials. There is a significant CPL opportunity within the Work Experience (AGNR-94) within the program. There are a lot of opportunities for students who have previous fieldwork experience to fulfill the Work Experience courses through CPL.

7. *What support or resources would faculty in your program need to implement or expand CPL opportunities? Identify any challenges or concerns you anticipate in implementing CPL in your discipline (e.g., academic integrity, workload, transferability).*

The Forest Science and Technology AS is designed specifically to transfer to Cal Poly Humboldt as seamlessly as possible. CPL opportunities within this specific degree could be concerning for transferability as the courses are specific for transfer to Cal Poly Humboldt and courses in forestry and natural resources are highly variable amongst programs.

Program Map *(Accreditation Standard 2.2 and 2.5):* Program maps represent one possible

pathway to complete a program. Attach a copy of the program map to the final CIPR.

8. *Review your program map with your program's Interest Area counselors and explain how the program map supports timely course completion.*

The program map for the Forest Science and Technology AS and the Natural Resources AS is designed to encourage students to take courses in an order to build upon foundational concepts. This particular program map sequences courses to ensure that students' are receiving the necessary background information to be successful in future courses. In the world of forestry and natural resources, these foundational background concepts are critical for real-world application and for continued education within the program.

☒ Please check this box once you have attached Curriculum Map(s) and Program Map(s). These documents will be updated throughout this review process.

5. Summary and Future Plans

This section serves as the foundation for your Annual Plans leading up to the next Comprehensive Instructional Program Review. All program improvement and resource (funding) requests (formerly called Initiatives) must be clearly linked to the goals outlined in this Self-Study.

For additional guidance and planning tools, refer to the Planning Support Canvas page.

Note: Using a six-year planning model ensures alignment with the College's Annual Planning process. Once completed, the final Self-Study will be posted on the Program Review Committee webpage, and Section 5 goals will be highlighted at College Council.

1. *Drawing on the analysis provided in Sections 1–4, identify both short-term and long-term goals for the program over the next six years. For each goal, outline strategies to achieve them, including a proposed timeline, estimated budgetary needs, and responsible individuals or roles. (Aligned with ACCJC Eligibility Requirement 19 and Accreditation Standards 1.2, 1.3, 1.4, 3.4, 3.5, 4.3)*

The program intends to continue to strive for SAF accreditation and expects to be notified of candidacy status by late November 2025. Upon achieving candidacy status, the next steps are to complete the review report, facilitate the SAF review committee's visit to campus, and complete the final requirements for SAF accreditation. It is likely that if all goes according to plan, SAF accreditation could be awarded to the Shasta College Forest Technician program within the next 2-3 years. Full-time faculty, Melissa Markee and Karine Hunt, will be dedicated to completing all the required reports, review committee meetings, and any other requirements for SAF accreditation.

The program has seen a trend in increased student enrollments and degree awards. It is likely that with the current trajectory of enrollment numbers, an additional full-time faculty may be required within the next 4-6 years to facilitate the increasing number of students. An additional full-time faculty member would assist with offering more sections of courses, more diverse scheduling of courses (night and weekend courses), and provide growth opportunities within the program.

2. *Any other information/reflections from the Self-Study the Gold Team would like to share:*
   Click or tap here to enter text.

3. *As a result of this Self-Study, please share what the program is most proud of:*
   - Trend of increasing enrollment
   - Data found only one disproportionate impact
   - Progress being made towards long term goal of SAF accreditation

End of the CIPR. Thank you, Gold Team!

TO BE COMPLETED by PROGRAM REVIEW COMMITTEE

See Instructional Program Review Bylaws for additional information.

Green Team Summary: *Please give an overall summary of the program highlights and CIPR strengths.*
The AGNR program has experienced significant enrollment growth. Faculty are thoughtfully exploring ways to improve impact and should be commended on accreditation candidacy, enrollment growth, and student engagement. The team is encouraged to work with the Research Office to identify hidden bottlenecks or barriers to program completion.

Recommendation for program disposition: If disposition is “with qualification” please add rationale and any recommendations for improvement. If disposition is “discontinuance,” please provide explanation.

☒ Without qualification
☐ With qualification
☐ Discontinuance