



**STATE BOARD FOR COMMUNITY
AND TECHNICAL COLLEGES
NOVEMBER 2022
STATEMENT OF NEED
BACHELOR OF APPLIED SCIENCE
ENVIRONMENTAL SCIENCES
*CLOVER PARK TECHNICAL COLLEGE***

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Cover Page — Statement of Need

Program Information

Institution Name: Clover Park Technical College

Degree Name: Bachelor of Applied Science – Environmental Sciences

CIP Code: 03:0104

Name(s) of existing technical associate degree(s) that will serve as the foundation for this program:

Degree: Associates of Applied Science – T Environmental Sciences and Technology

CIP Code: 15.0507

Year Began: 1993

Proposed Start Implementation Date (i.e. Fall 2014): Fall 2023

Projected Enrollment (FTE) in Year One: 10

Projected Enrollment (FTE) by Year: 12 by year 5

Funding Source: State FTE

Mode of Delivery

Single Campus Delivery: Lakewood campus

Off-site: Potential internship/capstone

Distance Learning: Face to face, hybrid, and online

Statement of Need

*Please see criteria and standard sheet. **Page Limit: 20 pages***

Contact Information (Academic Department Representative)

Name: Dr. Thomas Broxson

Title: Vice President for Instruction

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Telephone: (253) 589-5510

Email: thomas.broxson@cptc.edu

Chief Academic Officer signature

The Statement of Need must be signed. To sign, double click on the signature line below.



Recoverable Signature

X

Thomas Broxson

Chief Academic Officer

Signed by: cc9b5c15-799f-494e-88d1-6e47efd3ecc9

10/31/2022

Criteria 1

Relationship to institutional role, mission, and program priorities.

Institutional Role

The role of a technical college is serving the community as an open admission educational resource that responds to needs of both students and businesses. The BAS: Environmental Sciences program will uniquely provide that service to our community. As the first comprehensive applied Environmental Sciences program in the state, the BAS-ENV will fulfill the needs of place-bound, working practitioner adults needing a four-year degree to progress in their field, as well as regional graduates of other natural resource/environmental science associate programs. Our Advisory Committee, composed of representatives from local businesses reflecting the business needs of our role, is highly supportive of this proposed degree. Similarly, our AAS-T students have been asking for an in-house baccalaureate option to continue their studies.

Currently, our students only have our more general and management focused Operations Management program to continue to a bachelor's level degree unless they transfer. If students want more specific, environmental content, they have no affordable local options that would lead to bachelor's degree completion in two years. There are options outside of Pierce County including The Evergreen State College (30 miles away through a major traffic corridor) and at Skagit Valley College (100 miles away through a major metro area.) University of Washington (Tacoma), while closer, offers a BA in Environmental Studies and a BS in Environmental Science but our program graduates could not complete those degrees in two years. There are also private schools available, but the cost is prohibitive and specific undergraduate prerequisites can make completion difficult. A Clover Park Technical College (CPTC) BAS-ENV would be responsive to our students' needs and fulfill our institutional role.

Mission

The Bachelor of Applied Science – Environmental Sciences (BAS-ENV) supports CPTC's mission of "Educating Tomorrow's Workforce" by producing graduates supporting a transition to an environmentally just and sustainable economy. Washington state is a leader in environmental protection and green jobs. As defined by the Bureau of Labor Statistics, a green job:

- produces goods or provides services that benefit the environment or conserve natural resources. OR
- where duties involve making their establishment's production processes more environmentally friendly or use fewer natural resources. (*Measuring Green Jobs BLM*)

In their *Global Green Skills Report (2022)*, LinkedIn stated "We cannot wait any longer to address climate change. We have to green the economy and activate the jobs, companies and policies that will power it. By capitalizing on this unprecedented moment of change to

redirect human talent to accelerate the green transition, we'll have a fighting chance of meeting the climate challenge. But achieving this requires moving toward an economy that transitions workers into jobs beyond those currently considered green.”

The BAS-ENV will help provide workers with hands-on skills to address environmental problems and fill the jobs of the emerging green jobs economy.

Program Priorities

The CPTC Environmental Sciences and Technology program has one priority. Prepare students to enter the workforce as highly adaptive employees with the technical and life-long learning skills needed for an environmental career. The proposed program supports this priority. Graduates awarded the BAS-ENV degree will be well prepared to thrive in tomorrow's workforce.

BAS-ENV graduates, though still well qualified for technician positions, would have expanded options for scientist and supervisory level positions. This should move them up the pay scale initially and position them for future promotion without the need for additional training. The BAS-ENV program will achieve this preparation by including higher-level skills, equipping graduates with advanced communication, quantitative, work-based learning, and reasoning skills.

BAS-ENV will provide a high-quality, hands-on program vetted by our program advisory committee. CPTC's Environmental Science program employs highly skilled faculty and will utilize the unique 110-acre outdoor laboratory and the College's increased student support already in place for existing BAS students. The BAS-ENV will take advantage of components and collaboration with the College's existing accredited BAS programs ensuring excellence from the start. This proposal builds on CPTC's existing high standards for increasing equity within workforce educational pathways.

Criteria 2

Support of the statewide strategic plans.

Washington Student Achievement Council (WSAC) deems four areas essential to achieve the educational attainment goal of 70% of 25–44-year-olds in the state to have a post-secondary credential. Those areas are affordability, enrollment, completion, and student support (**Figure 1**).

The BAS-ENV program provides both the affordability and student support aspects. In the 2022-23 school year, a student enrolled in 12-credits of the proposed BAS-ENV would pay \$2,331 per quarter in tuition. Tuition at UW-Tacoma for a student enrolled in 12 credits is \$4,153 per quarter. Tuition at The Evergreen State College is more comparable at \$2,532 per quarter but also would include expenses related to a lengthy commute or moving out of the Pierce County area. Student support is provided through college traditional models of

services such as financial aid, counseling and advising, veterans services, and student life. In addition to these services, CPTC students have access to a BAS Specialist. This position serves students as they seek information in all BAS offerings, enter instructional programs, move towards completion, and explore career connected learning experiences. The position helps the individual student navigate to the correct support resources within student success and college systems. The specialist also expands BAS outreach efforts and supports faculty involvement with the relevant student support services.

The WSAC 2022 Strategic Action Plan (SAP) identifies gaps in affordability and student supports. The BAS-ENV helps to close those gaps. Affordability increases enrollment. Well-developed student supports leads to higher completion. Higher completion leads to a more equitable future for our program graduates and our community.

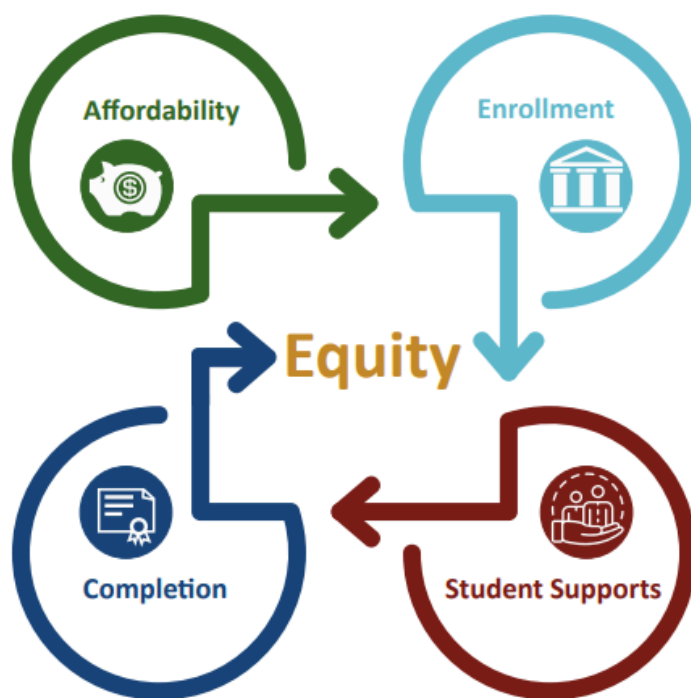


Figure 1. WSAC Strategic Cluster Areas

Environmental justice is also an important factor in developing this program. A “Key Takeaway” from the Strategic Action Plan is “Racial and ethnic disparities appear throughout educational pathways.” This is especially true for environmental sciences – identified as one of the least diverse fields in STEM. While people of color are underrepresented in the environmental workforce and degree programs, they are more likely to be vulnerable to environmental pollution and the detrimental impacts of climate change (Diverse, 2020). According to the 2020 US Census, Lakewood is a minority-majority community and is poorer than many other communities in the state. According to CPTC’s Institutional Research Data, from 2016-2021 CPTC was 56% non-white and 27%

economically disadvantaged. Developing a BAS-ENV program can help close the diversity gap found in the environmental sciences and provide living wage jobs to those living in the community (see Figure 3).

Criteria 3

Employer/community demand for graduates with baccalaureate level of education proposed in the program.

Per CareerOne Stop, in Washington state, demand for Environmental Scientists and Specialists is projected to be 500 openings per year. Demand for Environmental Science and Protection Technicians is projected to be 240 openings per year. Net gain from 2020-2030 is projected at 812 and 270 respectively.

According to the National Center for Education Statistics College Navigator, in the 2020-21 school year, Washington state colleges and universities graduated 591 environmental science/studies majors in baccalaureate programs. That is a gap of 149 openings. The Evergreen State College is not included as they do not have declared majors. The Washington Employment Securities Department also projects increased job openings from 2025-2030 (Figure 2).

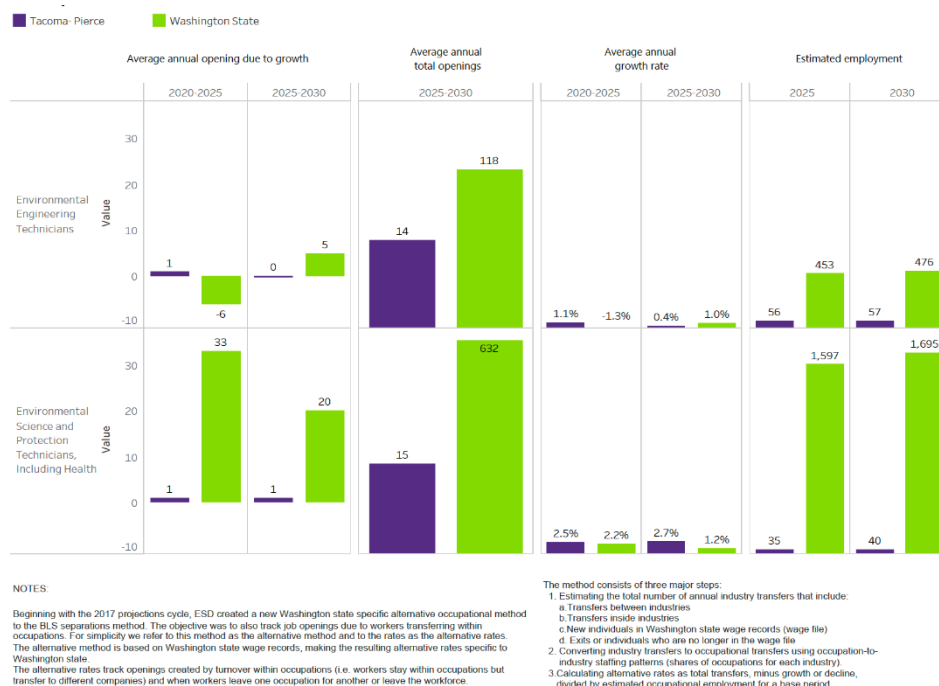


Figure 2: Environmental Technician Occupation Growth 2020-2030



Figure 3: Environmental Technician Occupation Wages

On October 19, 2022, program faculty performed a job search on the Employment Security website for the job titles “Environmental Scientist” and “Environmental Technician”. Faculty excluded engineer positions and the “Environmental Services Technician” in health care. In the Puget Sound region, 113 unique positions were posted in that 30-day period (**Table 1**).

Table 1: Unique jobs posted to Employment Security in the 30 days prior to October 19, 2022

City	Unique Postings
Bellevue	3
Bothell	2
Issaquah	2
JBLM	3
Lacey	33
Lakewood	1
Olympia	27
Puyallup	2
Seattle	26
Snohomish	1

Tacoma	11
Tumwater	2

In the 2020-21 school year, 591 students graduated with Environmental Science/Studies bachelor's degrees. Most graduates (410) came from two schools, Western Washington University and University of Washington (Seattle). Both schools present a distance barrier for our associate program graduates.

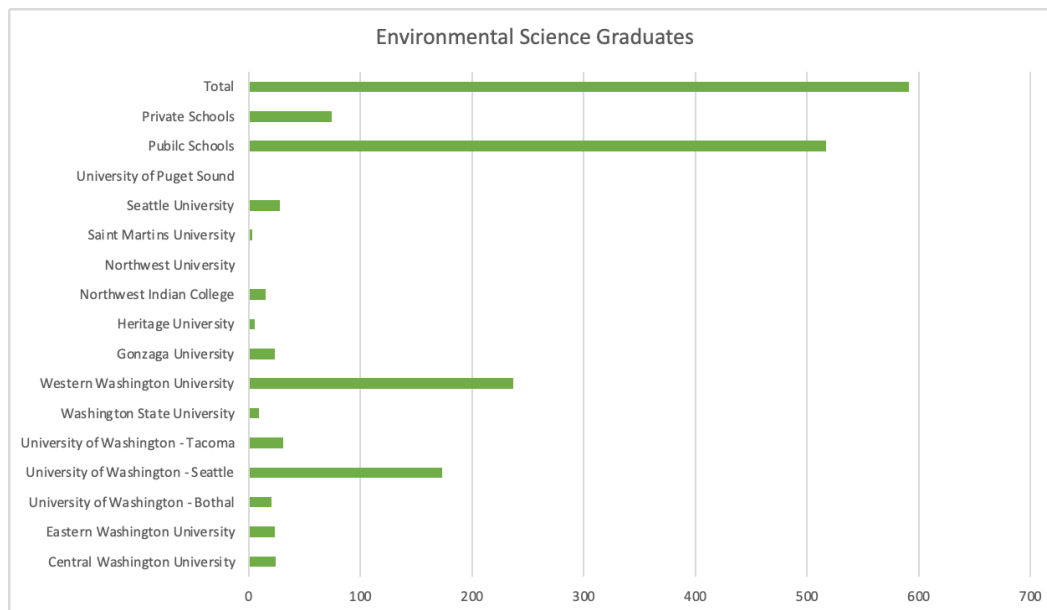


Figure 4: Environmental Science/Studies Bachelor's Graduates (source NCES 2020-21)

Additional evidence of the demand for a BAS-ENV program at CPTC came from the Sustainability Coordinator at JBLM, Catherine Hamilton-Wissmer (a member of our program advisory committee.) She stated that environmental services positions “are held by Government Civilians who work through contracted companies on a very specific job

description known as a 'task list'. There is no training period, no cross training, or deviation from your job responsibilities. There is no on-site management or professional development provided by the contracting companies. Requirements for these positions require a Bachelor's degree in environmental science or related field, or higher. This is a recent (2020) change due to new contracting requirements.” Previously, students graduating from our associate’s program were employed and lost their employment due to new degree credential requirements.

Criteria 4

Baccalaureate program builds from existing professional and technical degree program offered by the institution.

In 1993, CPTC started the Environmental Sciences and Technology associates degree program to retrain loggers and other timber workers affected by the inclusion of the Northern Spotted Owl on the federal Endangered Species List. The program covers a broad range of environmental technologies from habitat restoration and conservation to hazardous wastesite cleanup, and a variety of topics in-between.

Enrollment for the last five years has been challenging due to the accidental death of a long-term faculty member followed by the COVID-19 epidemic (**Figure 5**). All numbers below are FTE.

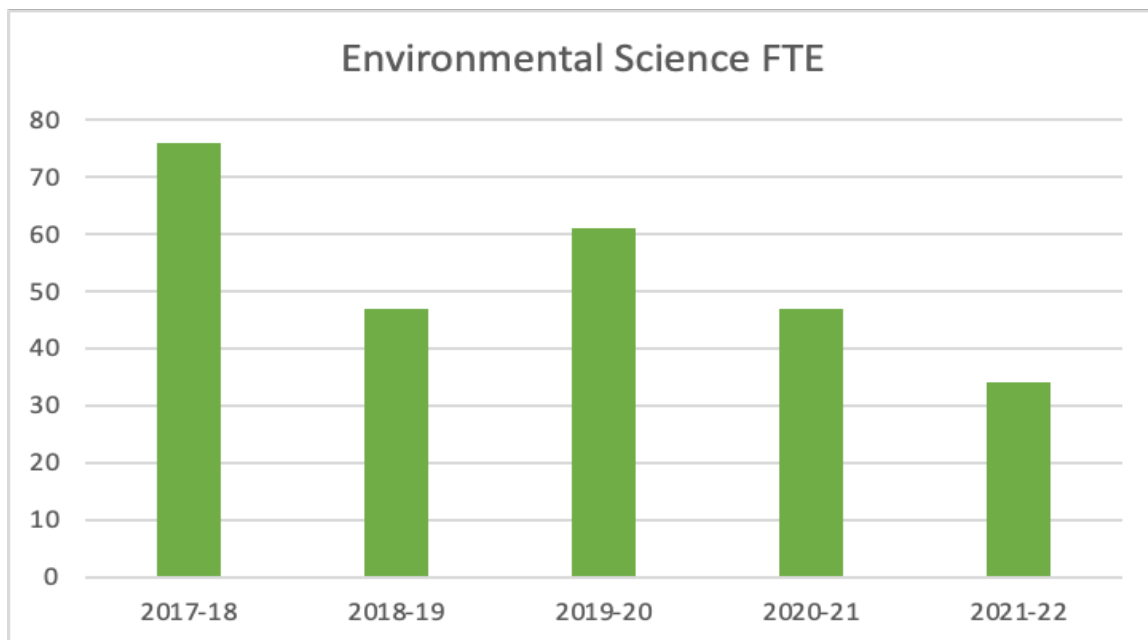


Figure 5: CPTC Environmental Sciences & Technology program FTE

The Environmental Sciences and Technology program students are getting younger (**Figure 6**). Where historically most program students were older students seeking retraining, we now have more students coming either directly or a few years outside of high school. These students may be more likely to continue to a BAS-ENV program.



Figure 6: Enrollment change by age from 2017-2022

CPTC partners with the City of Tacoma and Goodwill Industries in offering short-term environmental training under the Environmental Workforce Development and Job-Training grant offered by the U.S. Environmental Protection Agency (the Brownfields program.) This program provides grants and technical assistance to communities, states, tribes and others to assess, safely clean up, and sustainably reuse contaminated properties (brownfields website). The training is targeted to community members who live in environmentally degraded areas providing them with skills and job placement assistance that will eventually help them clean-up their physical environment. These students also feed into our associate's degree program and may be an additional pipeline for the BAS-ENV.

Criteria 5

Student demand for program within the region.

We conducted a survey of current students and graduates (2010 and after) of CPTC's Environmental Sciences & Technology program (AAT and AAS-T degrees). The survey was sent to 170 individuals, of which 45 responded (26.5% response rate). Of the respondents, 22% were current students and 78% were graduates. About half (19) of the program graduates indicated they are working in an environmental sciences field, with a variety of job titles (e.g., biological science technician, engineering designer, sustainability outreach coordinator, stream survey technician) and employers (e.g., National Park Service, Mason Public Utility District, Ageiss/JBLM, WDFW). Our students and graduates are satisfied with their experience in the program with 76% "Very satisfied" and 18% "Somewhat satisfied" for overall level of satisfaction (**Figure 7**) and 35 of 45 respondents giving a 8, 9, 10 out of 10 for likelihood of recommending the program (**Figure 8**).

Despite the broad satisfaction with our current associate degree programs, 42% expressed interest in pursuing additional educational opportunities. Individuals surveyed indicated strong interest in an Environmental Sciences BAS program at CPTC with 56% saying "yes"

and 23% saying “maybe” they would be interested in enrolling. Of those interested in enrolling, 49% were extremely likely, 16% very likely, and 12% moderately likely (**Figure 9**). Of our 18 current students, the 10 students that completed the survey indicated they were very likely or extremely likely to enroll in the BAS program. This interest is driven by the educational requirements of jobs in the field (61%) and familiarity with CPTC and the program instructors (25%).

8. Please rate your overall level of satisfaction with your experience in the Environmental Sciences & Technology program at CPTC.

[More Details](#)

[Insights](#)

Very satisfied	34
Somewhat satisfied	8
Neither satisfied nor dissatisfied	1
Somewhat dissatisfied	1
Very dissatisfied	1



Figure 7. Satisfaction with Environmental Sciences & Technology program at CPTC

9. On a scale from 0 to 10, how likely are you to recommend the Environmental Sciences & Technology program at CPTC to a friend, family member, or colleague?

[More Details](#)

0- Extremely unlikely	1
1	0
2	1
3	1
4	1
5 - Neutral	3
6	0
7	3
8	9
9	6
10 - Extremely likely	20

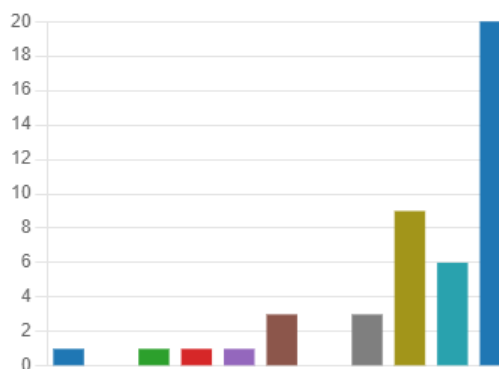


Figure 8. Likelihood to recommend Environmental Sciences & Technology at CPTC

11. If CPTC were to offer a bachelor of applied science (BAS) program in environmental sciences, how likely do you think you would be to enroll?

[More Details](#)

Not at all likely	9
Slightly likely	2
Moderately likely	5
Very likely	7
Extremely likely	22



12. If CPTC were to offer a bachelor of applied science (BAS) program in environmental sciences, would you be interested in enrolling?

[More Details](#)

[Insights](#)

Yes	25
No	9
Maybe	11



Figure 9. Interest and likelihood to enroll in a BAS program in Environmental Sciences at CPTC

Industry standards for environmental technician and other similar positions have changed. Students, instructors, and program advisory committee members have all noticed that many of these positions now require a bachelor's degree. For example, upon the change of contract with Agiess, a federal contractor at JBLM terminated employees who did not hold a bachelor's degree. Although graduates of our associate degree programs often have the required skills and meet all other job requirements, the educational requirements serve as a barrier to being qualified for more positions with a living wage. In the Fall of 2021, our program advisory committee unanimously voted in favor of pursuing the development of a BAS program.

Based on survey results from program graduates, current students, and other input received from industry professionals, we predict a five percent increase in our full-time equivalent enrollment over the next five years (**Table 2**).

Table 2: Projected FTE enrollment BAS-ENV 2023-2028

Academic Year	Full-Time Equivalent Enrollment Projection
2023-2024	10
2024-2025	10.5
2025-2026	11
2026-2027	11.5
2027-2028	12

Criteria 6

Efforts to maximize state resources to serve place-bound students.

Place-bound working adults

The BAS in Environmental Science will allow Pierce County students to pursue a bachelor's degree without leaving the area. The most closely related BAS program in western Washington is Environmental Conservation at Skagit Valley College in Mt Vernon, 100 miles away.

The BAS-ENV will offer program content using online, hybrid, and in-person modalities meeting the needs of working students. Offering classes outside of traditional working hours is also a possibility to meet the needs of the working student.

Similar Programs

University of Washington – Tacoma (UW-T) offers a BA in Environmental Sustainability and BS in Environmental Science.

The Evergreen State College (TESC) has environmental programs available but no declared majors.

Pacific Lutheran University (PLU) has an Environmental Studies degree.

Collaboration Efforts

In 2010, CPTC entered into an Articulation agreement with UW-T for the Interdisciplinary Arts and Sciences Program Environmental Studies and Environmental Science degrees. CPTC students were able to transfer to UW-T two credits short of junior status. For the BA program, transferring students were able to complete in two years, while BS students needed three years to complete prerequisites for the science degree. In 2016, UW-T changed the BA program from Studies to Sustainability and set up focus pathways. This greatly complicated the articulation agreement as there was no longer a clear path to completion. The BS program was still a potential transfer option but the additional year plus of prerequisites is a

barrier. CPTC and UW-T revisited the articulation in 2017 and faculty met to discuss updating the agreement in early 2018. Both groups recognized the focus pillars as a barrier to transfer students completing. In October of 2019, CPTC program faculty were informed the articulation agreement was in the hands of the Vice Chancellor at UW-T and then heard nothing else.

The Evergreen State College accepts CPTC transfer students as juniors and those students can complete in two years. It is about thirty miles from Lakewood through a major transportation corridor. This can be a barrier to some students.

CPTC and PLU set up an articulation agreement in 2011. The cost of this private university is a barrier to completion. Also, transferring students are required to take lower division religious studies general education courses which would make it difficult for those transferring to complete the required number of upper division courses in two years.

The most closely related BAS program is at Skagit Valley College which is designed to meet the conservation and natural resource demands. The distance presents a barrier for our students. Also, the BAS-ENV will be broader in scope than the Skagit Valley program. CPTC's program has local demand for additional skills outside of conservation and natural resources. We have not actively collaborated with Skagit Valley but are open to doing so.

Unique aspects of the proposed program

There are no comprehensive Environmental Sciences BAS degrees in Washington state – the BAS-ENV program outcomes meet the needs of a broader workforce demand including Environmental Science Protection Technicians, Hazardous Materials supervisors, Laboratory Technicians, and Spill Responders. The applied, hands-on focus on environmental technical skills which will be prevalent in our program outcomes and distinguishes this program from other schools like UW-T or PLU with more theoretically based program outcomes.

Our program advisory board recommends expansion as many job postings require bachelor's degrees for technician level positions. Also, expansion would provide a local and more affordable option for a different student population and provide more targeted and hands-on development training than a regional university.

Criteria 7

Promoting equitable opportunities for students, including historically marginalized students.

CPTC is committed to a data-driven institutional planning process that is centered on student success for the diverse communities within its service district. This commitment is stated in the overall mission of the college, strategically carried out in educational activities, analyzed using disaggregated data and emphasized annually in the strategic planning process and assessment activities.

It should also be noted, the demographic trends in Pierce County, a substantial portion of the College's students are low-income students (defined as "economically disadvantaged")

which includes Pell eligible or benefits recipients) and students of color (44% and 50% respectively). CPTC students are 28 years old, on average, and more than half work while they attend; 30% have children and 8% of the student body are veterans, as CPTC is located next to the largest military installation on the west coast (JBLM). The College's students bring a diverse set of identities and challenges with them. The following table describes CPTC's student demographics from 2016-2021.

Table 3: CPTC student demographics according to CPTC Institutional Research Data

Demographics 2016-17 to 2020-21	% of All Students	Number of All Students
Black/African-American	12%	1,943
Hispanic/Latinx	15%	2,318
Asian	8%	1,225
Multi-racial	10%	1,563
White	44%	6,844
Economically disadvantaged	27%	4,310
Student-parents	28%	4,503

In Fall 2019, the CPTC Board of Trustees voted to add Equity as the College's fourth core theme in recognition of the responsibility the College has in promoting equitable outcomes for its students. In addition, the college identified Equity, Diversity, and Inclusion (EDI) as an institutional priority through policy and personnel.

CPTC has set the following strategic statements to move the needle on EDI recruitment and support of BIPOC and low-income students:

1. Establish a productive learning environment by identifying high impact practices that build relationships, embrace diversity, help students persist, and create an environment that supports learning.
2. Use active learning strategies that promote and leverage active learning as well as to plan and facilitate engaging discussions.
3. Promote higher order thinking strategies that deepen learning and help students take greater ownership of their studies.
4. Assess to inform instruction and promote learning methods of formative and summative assessment to promote learning and refine teaching.
5. Increase recruitment, retention, and promotion of BIPOC faculty and students.
6. Support faculty in the work of imbedding additional student supports such as tutoring, counseling, and student services within programs and classes to better

serve students by bringing these services to the classrooms, labs, and online courses they are taking.

7. Increase work-based learning opportunities across the colleges' programs by providing increased training and support for faculty.

With equity at the forefront of college efforts, new positions were created to impact this work: First, an Associate Vice President for EDI, responsible for conducting the college's EDI Institutional Climate Assessment, developing a Strategic Plan, and creating a culturally responsive training series; second, a Student Diversity Recruiter assisting in the development and implementation of student diversity outreach and recruitment efforts/events designed to create a diverse student population, with a specific focus on attracting traditionally underserved students; and third, a Student Diversity Programs Manager to oversee the MOSAIC (Student Access, Inclusion, and Community) Center for students and provide student programming. In addition to the EDI office, in 2019 a BAS student specialist position was created to conduct recruitment, provide hands on consulting for student applications and navigate career pathways our growing number of BAS offerings.

The CPTC's strategic equity goal aims to create an inclusive institutional culture and campus climate by valuing diversity and promoting equitable opportunities for all, with an emphasis on eliminating achievement disparities. This overarching principle of equity drives the motive for this BAS program proposal by providing our current Environmental Sciences and Technology associates degree students with an affordable option to expand their career opportunities and advancement.

Resources

Bureau of Labor Statistics, U.S. Department of Labor. *Occupational Outlook Handbook*. Environmental Science and Protection Technicians. Retrieved from

<https://www.bls.gov/ooh/life-physical-and-social-science/environmental-science-and-protection-technicians.htm>

Diverse: Issues in Higher Education. (2020) “Why Environmental Studies is Among the Least Diverse Fields in STEM.” Retrieved from:

<https://www.diverseeducation.com/institutions/hbcus/article/15106248/why-environmental-studies-is-among-the-least-diverse-fields-in-stem>

LinkedIn. (2022). *Global Green Skills Report*. Retrieved from

<https://economicgraph.linkedin.com/en-us/research/global-green-skills-report>

National Center for College Education Statistics College Navigator (2021) Retrieved from

<https://nces.ed.gov/collegenavigator/?s=WA&p=03.0104+03.0103&l=93>

Washington Student Achievement Council. (2022). *Strategic Action Plan 2022*. Retrieved from:

<https://wsac.wa.gov/sites/default/files/2022-08-31-0141-Strategic-Action-Plan.pdf>

ATTACHMENT A: Applied Baccalaureate Degree Supply/Demand Gap Rubric for Colleges

The goal of this rubric is to help you build a program that will meet the needs of your community. We have given you options about the information you can use to support the need for your new program. Also, the guidelines for estimating the supply/demand gap are similar to the ones we use for other program applications. We hope this makes the rubric more familiar to you. If not, contact the Director of Transfer Education at SBCTC for further information.

The application needs to show the information below for program approval:

- employers demand* the level of technical training proposed within the program, making it cost-effective for students to seek the degree;
- lead to high wage-earning jobs; and
- the proposed program fills a gap in options available for students because it is not offered by a public four-year institution of higher education in the college's geographic area.

College Name: Clover Park Technical College	
Program Name: Environmental Sciences	
Select one: Existing Occupation <input checked="" type="checkbox"/> or Emerging Occupation <input type="checkbox"/>	
If local demand/supply information is available for the specified degree program and target occupation(s),**	
For demand: Provide local/regional demand data for the targeted occupation job title(s) from traditional labor market data, industry data, trade association data, or other transactional data. (Provide absolute numbers, not just percentages)	Per CareerOne Stop, demand for Environmental Scientists and Specialists is projected to be 500 openings per year. Demand for the Environmental Science and Protection Technicians is projected to be 240 opening per year. Net gain from 2020-2030 is projected at 812 and 270 respectively.
For supply gap: Provide data on the number of programs and the number of annual program graduates for all four-year colleges that supply your region. Is the number of current annual graduates insufficient to meet current and projected demand? (The result of demand minus supply).	Per NCES, in the 2020-21 school year, Washington state colleges and universities graduated 591 environmental science/studies majors in baccalaureate programs. That is a gap of 149 openings.
OR, if demand information is not available or it is a new/emerging/changing occupation, **	

For demand: Provide employer survey results for local demand for the targeted occupation job title(s) to support the demand and education level for the program. <u>Survey requirements are listed below.</u>	N/A
For supply gap: Provide employer survey results for local supply for the targeted occupation job title(s) to support that there is a gap in the number of qualified applicants available to fill jobs. <u>Survey requirements are listed below.</u>	N/A
OR, if based on a statutory or accreditation requirement, **	
Select one: Statutory Requirement <input type="checkbox"/> or Accreditation Requirement <input type="checkbox"/>	
For demand: Provide labor market information on the current education requirements for the job, including evidence of recent openings for requiring or preferring bachelor's degrees or above. Cite the statute or certifying body, your proposed program is based upon that has specified a bachelor's or above in the field is needed.	N/A
For supply gap: Provide employer survey results for local supply for the targeted occupation job title(s) to support that there is a gap or that employers anticipate a gap in the number of qualified applicants that will be available to fill jobs with the new requirements. <u>Survey requirements are listed below.</u>	N/A
<p>* Demand is defined by state law as “<i>an occupation with a <u>substantial</u> number of current or projected employment opportunities.</i>”</p> <p>**Applications may include information related to more than one option (i.e., labor market data to support the local demand for the occupation and a local employer survey to support that there is a gap in the number of qualified applicants available to fill jobs).</p>	

Survey Requirements:

To verify/support supply demand your survey should include at least 25 individual employer responses. If there are not 25 employers in the area, you should cover the employers who comprise at least 75% of the identified employment base. Provide a copy of the survey with the aggregated results as an appendix. The survey must address the following general questions (you may edit the wording to suit your survey):

- (1) Do you have anticipated demand for application job title(s)? (If this is a new or emerging job title, include a brief description of specific job duties.)

- (2) If there is demand, how many positions do you currently have open? How many do you anticipate having open in the next 3 years?
- (3) Is a bachelor's degree a requirement or preference for this position? Requirement: Y or N Preference: Y or N
- (4) Do you have difficulty finding Bachelor's degree level applicants for this position? (If yes- explain)
- (5) Will the proposed program assist you in finding qualified applicants to fill the position(s)?

ATTACHMENT B: Current Student and Graduate Survey – Summary of Results

n = 45 responses to survey

N = 170 individuals invited to survey

Response Rate = 26.5%

1. Are you a current student or a graduate of the CPTC Environmental Sciences & Technology program?

78% graduate

22% current student

2. If you are a graduate, when did you graduate?

Graduates were from 2006 to 2022.

3. If you are a graduate, are you working in the field of environmental sciences. Who is your employer? What is your job title?

19 of 35 graduates are working in the field of environmental sciences. Employers and job titles are diverse, which represents the broad scope of our environmental sciences program.

4. If you are a graduate, are you working on a Bachelor's degree? If so, where and is it within the field of environmental sciences?

4 of 35 program graduates have a bachelor's degree and only one is currently working on one.

5. In your last quarter as a student at CPTC, were you a full-time or part-time student?

91% full-time

9% part-time

6. What were your initial goal(s) for attending college? Please select all that apply

78% earn a certificate or degree

69% prepare for getting a job

62% prepare for a career change

58% transfer to a 4-year college/university

47% pursue personal interests

18% improve existing job skills

2% earn a high school diploma

2% other
0% learn English

7. Originally, what motivated you to enroll Environmental Sciences program at CPTC?
Please select all that apply.

84% specific program or major offered

44% location

29% other

20% CPTC's reputation

18% recommendation from a family member, friend, or teacher

18% tuition

7% flexibility with course schedule

7% availability of online courses

8. Please rate your overall level of satisfaction with your experience in the
Environmental Sciences & Technology program at CPTC.

76% very satisfied

18% somewhat satisfied

2% neither satisfied nor dissatisfied

2% somewhat dissatisfied

2% very dissatisfied

9. On a scale from 0 to 10, how likely are you to recommend the Environmental
Sciences & Technology program at CPTC to a friend, family member, or colleague?

0-Extremely unlikely = 2%

1 = 0%

2 = 2%

3 = 2%

4 = 2%

5-Neutral = 8%

6 = 0%

7 = 7%

8 = 20%

9 = 14%

10-Extremely likely = 45%

10. Do you have any plans to enroll at another college or university in the near future?

31% Yes

27% No

42% Unsure

11. If CPTC were to offer a bachelor of applied science (BAS) program in environmental
sciences, how likely do you think you would be to enroll?

20% Not at all likely
4% slightly likely
11% moderately likely
16% very likely
49% extremely likely

12. If CPTC were to offer a bachelor of applied science (BAS) program in environmental sciences, would you be interested in enrolling?

56% Yes
20% No
24% Maybe

13. If CPTC were to offer a bachelor of applied science (BAS) program in environmental sciences, why would you be interested in enrolling?

61% I would meet the educational requirements of more jobs in the field if I had a bachelor's degree.
25% Familiarity with CPTC and its instructors
8% Other
3% I need a bachelor's degree to advance with my current employer.
3% CPTC's reputation

14. If you could add one class/topic to a bachelor of applied science program in environmental sciences, what topic would it be?

A variety of responses were provided. Select examples include:

- Botany
- Environmental law
- GIS
- Land management practices
- Wildlife conservation

15. Please provide any additional comments or suggestions that you think may be helpful as CPTC develops a bachelor of applied science program in environmental sciences.

A variety of responses were provided. Select examples include:

- Provide an online format with classroom twice a week for labs
- I would greatly enjoy having a BAS program at CPTC for Environmental Sciences, I would be able to attend CPTC instead of Evergreen or UW-T at a much closer location for a much lower tuition.
- Keep doing what yall did with us, and it'll be perfect
- Please maintain the emphasis on earning certifications, hands-on experience with a variety of equipment, and making students desirable candidates for environmental jobs.

16. What is your gender identity?

40% Man
36% Woman
9% Non-binary
9% Prefer not to respond
4% Transgender
2% Androgenous
0% Gender neutral
0% Other

17. Are you Hispanic or Latinx?

2% Yes
9% No
89% Prefer not to respond

18. What is your race/ethnicity? Please select all that apply.

76% Caucasian/White (Non-Hispanic)
16% Prefer not to respond
9% Black or African American
4% American Indian or Alaska Native
4% Asian
0% Native Hawaiian or other Pacific Islander