

Applied Baccalaureate Degree Program

Statement of Need

Shoreline Community College Bachelor of Applied Science Dental Hygiene February 11, 2019

COVER SHEET STATEMENT OF NEED

Program Information

Institution Name:	Shoreline Community College	
Degree Name:	Bachelor of Applied Science in Dental Hy	vgiene CIP Code: 51-0602
Name(s) of existing	g technical associate degree(s) that will serve a	s the foundation for this program:
Degree: Assoc	ciate Degree in Dental Hygiene CIP C	Code: <u>51-0602</u> Year Began: <u>1968</u>
Degree:	CIP C	Code: Year Began:
Proposed Start Imp	lementation Date (i.e. Fall 2014): Fal	1 2020
Projected Enrollme	ent (FTE) in Year One: 48	at Full Enrollment by Year: 2023
Funding Source:	State FTE: 🛛 Self-Sup	port: D Other: D
Mode of Delivery	7	
Single Campus De	livery: Shoreline Community College,	Shoreline, WA
Off-site:	N/A	
Distance Learning:	No.	
Statement of Nee	d: Please see criteria and standard she	eet. Page Limit: 20 pages
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Buyth /	Vice President for Stude	nt Learning March 25, 2019 Date

STANDARD CRITERIA 1. Relationship to institutional role, Describe how the proposed program reflects and support the role mission, and program priorities. and mission of the institution and reflect program priorities. 2. Support of the statewide Describe how the program will support SBCTC Mission goals strategic plans. outline in the Mission Study and WSAC policies and goals for higher education as articulated in the Strategic Master Plan for Higher Education. 3. Employer/community demand •Employer demand must exceed regional supply of graduates for graduates with baccalaureate with relevant degrees. level of education proposed in •Demand must be based on data sources including but not the program. limited to local employer survey, traditional labor market data, industry data, trade associated data, and other transactional data. Please provide evidence of the gap between the numbers of program graduates verses the number of job opening locally and regionally. Refer to attached supply/demand gap rubric for additional guidance. Describe the existing professional and technical degree program 4. Applied baccalaureate program that will be used as the foundation for applied baccalaureate builds from existing professional program. Include how long the program has been in existence and technical degree program and the enrollment history of the program over the past five offered by the institution. years. 5. Student demand for program Evidence of student interest and demand from multiple sources, within the region. such as but not limited to: students graduating with technical associate degrees in the region, survey of students within region, demand in excess of opportunity to enroll in related traditional bachelor's programs, and changes in industry standards. Include enrollment projections for each year over the next five years. 6. Efforts to maximize state •Describe how program will serve place-bound working adults. resources to serve place-bound •Identify similar program offered by public or independent students. institutions in the region. •Describe options that have been explored for collaboration with other public baccalaureate institutions, businesses, and /or community organizations considered in the development of the proposal and include a brief description of initial conversations. •Describe collaboration with similar CTC BAS programs and related CTC Centers of Excellence. •Describe unique aspects of the proposed program that differentiate it from similar programs and/or describe why

expansion would be desirable or necessary.

APPLIED BACHELOR'S DEGREE STATEMENT OF NEED CRITERIA

Table of Contents

Bachelor of Applied Science Dental Hygiene Statement of Need

Introduction
BASDH Program objectives and outcomes
About Shoreline Community College7
Relationship to institutional role, mission, and program priorities7
Priorities of Shoreline's Dental Hygiene Program
Support of statewide strategic plans
Support of statewide strategic plans
Supporting WSAC policies and goals for higher education
Employer/community demand
Employer survey
Local and national demand
Regional supply12
Existing professional and technical degree program
Student demand for program14
Student survey
Changes to industry standards15
Bridge program15
Efforts to maximize state resources
Serving place-bound working adults
Collaboration with colleges and industry
Further collaborations, support, and innovations19
Conclusion
References
Appendix I
Appendix II

Bachelor of Applied Science Dental Hygiene Statement of Need

Introduction

Shoreline Community College (Shoreline) seeks approval to offer a Bachelor of Applied Science degree in Dental Hygiene (BASDH), its first bachelor's degree, beginning in fall of 2020. Transitioning the Associate in Applied Arts and Sciences (AAAS) degree to a BASDH will reflect the academic standards and credit requirements of the current program while also addressing 21st century industry standards.

The proposed transition to a Bachelor of Applied Science degree in dental hygiene meets the expressed needs of both current and past community college students. For those currently in the program, the prospect of obtaining a bachelor's degree would become a reality. They will not have to postpone and or forego employment opportunities because of their educational goals; rather, they will be able to obtain their bachelor's degree within the same time frame as their fellow dental hygienists from other institutions of higher education. Furthermore, they will not have to spend more money and two extra years to obtain a bachelor's degree. For those holding a terminal AAAS degree, this transition will open an opportunity to fulfil their educational goals and dreams. The BAS program will give them a pathway to further their education attainment and increase their job marketability.

Offering a BASDH will address changes to industry standards. Both the National Governors Association and The American Dental Hygienists' Association (ADHA) have proposed the baccalaureate degree as the entry-level education for dental hygiene.^{1,2} In 2013, the Washington State Dental Hygienists' Association (WSDHA) enacted a policy to support "efforts of all Washington State accredited dental hygiene programs to award graduates a bachelor's degree upon successful completion of the curriculum and related competencies as the entry level into the profession."³

Health care practices are evolving to meet community health needs. Dental hygienists holding an AAAS are required to practice under the supervision of a dentist. However, with a BASDH, hygienists can serve a large percentage of the population who need preventive services and for whom the traditional route of private dental practices is not an option.

Demand for dental hygienists is strong, both nationally and regionally. Graduates of BAS programs are better equipped not only to serve labor market demands, but also provide pathways for career advancement. Shoreline has a responsibility to provide students high-value degrees and to prepare the future workforce to meet industry expectations. Students will benefit from earning a credential that commands a higher wage and employers will benefit from an employee with skills that meet or exceed industry standards.

Graduates with a BASDH degree will be qualified for jobs in areas outside of the typical dental practice. Employment opportunities for BAS hygienists exist in all six roles of the profession: public health, education, research, leadership, practice management, advocacy, and other dental health and business-related fields.

BASDH Program Objectives and Outcomes

As a result of the expanded BASDH education, successful graduates of the Shoreline Dental Hygiene program will be prepared to:

- 1. Successfully meet the essential competencies as outlined in course outcomes approved by the Western Regional Examining Board for dental hygienists.
- 2. Successfully complete all licensing exams required to practice in the 15 western regional participating states, including Washington State, and attain an entry-level position as a dental hygienist.
- 3. Assess, diagnose, plan, implement, and evaluate the provision of optimal evidencedbased, and patient-centered dental hygiene care in all aspects of dental hygiene practice, including community-based oral health programs, disease prevention activities, and health promotion.
- 4. Follow industry standards for professionalism and make appropriate decisions guided by ADHA ethical principles and core values.
- 5. Communicate effectively and professionally, using verbal, non-verbal and written language with patients, colleagues, the public, diverse populations, and other healthcare providers.
- 6. Demonstrate the skills necessary to stay current in the profession with a rigorous and robust emphasis on current research and changes in the field.
- 7. Integrate the roles of clinician, educator, advocate, manager, and researcher to prevent oral disease and promote health.
- 8. Successfully meet entry requirements for dental hygiene graduate programs and advance in other academic and industry programs.

Shoreline Community College was Washington State's first community college to offer an AAAS in Dental Hygiene. Since 1968, the program has supplied the community with muchneeded dental hygienists and provided dental care through its on-campus clinic to students and the local community. As the standard for the profession moves toward four-year credentials, Shoreline is ready to provide this needed student pathway to produce more baccalaureate candidates for future dental hygiene careers.

Providing a BASDH degree at Shoreline will allow current and prospective students to obtain a bachelor's degree within the same time frame as their counterparts at other colleges and universities without having to relocate and incur additional cost. Students will enter their chosen field sooner, with less financial strain, and be prepared for additional employment opportunities.

About Shoreline Community College

Located 10 miles north of downtown Seattle, Shoreline is one of the most strikingly beautiful college campuses in Washington. Twenty-six buildings constitute the 83-acre campus. These include an award-winning automotive training center, a visual arts building, nursing program, computer centers, STEM and health care laboratories, a student center, a theater, a well-equipped gymnasium, a child care center, a sophisticated multimedia center and the Ray W. Howard Library/Technology Center. The grounds once served as a special place to the Duwamish Tribe for gathering traditional foods in ways that increased the bounty of the land.

 Relationship to institutional role, mission, and program priorities. 	Describe how the proposed program reflects and supports the role and mission of the institution and reflects program priorities.
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Vision

"We are recognized for inclusive excellence in teaching and learning, student success, and community engagement."

Mission

"We serve the educational, workforce, and cultural needs of our diverse students and communities."

Ensuring that Shoreline's degrees provide career advancement and job opportunities is integral to the College's Mission to "serve the educational, workforce, and cultural needs of our students." Offering a BASDH will open new career opportunities to graduates. A Shoreline BASDH graduate will not be limited to clinical practice—she or he will have opportunities to progress into research, public health, education, sales, or pursue graduate studies. Providing a BASDH aligns with evolving industry standards and unlocks new career opportunities to the College's graduates, thus supporting Shoreline's Mission and Vision.

To serve the educational and workforce needs of Shoreline's students, the Program must adapt to industry changes and an evolving labor market. Shoreline's Dental Hygiene program has been a leader in education, community engagement, and job placement. The major professional bodies that govern the field of dental hygiene, the ADHA and the Washington State Dental Hygiene Association (WSDHA), recommend that a BASDH become the entry level education for dental hygienists.^{1,3} To ensure student success and meet the evolving workforce needs of the state, it is critical for Shoreline to offer a BASDH.

Priorities of Shoreline's Dental Hygiene Program

Shoreline's Program priorities ensure that graduates are ready for successful careers in dental hygiene. The following highlights the program's priorities and their alignment with the proposed BASDH degree.

Education

Not only will Shoreline BASDH graduates meet the evolving industry standards in the dental hygiene profession, but their career advancement opportunities and career paths will greatly expand.

Patient care

Elevating the AAAS to a BASDH will help graduates better serve patient needs and be prepared for changes in new treatment technologies.

Research, scholarly activity, and community service

The new Program will foster a rigorous academic environment that encourages scholarly research. It will also offer opportunities that expose students to a wide breadth of career options and community service opportunities.

Facilities

The proposed BASDH will complement the Programs planned new clinic and skills lab. Together, these upgraded facilities will lay the foundation for enriching educational experiences and patient treatment.

The needs of Dental Hygiene in Washington and around the country are changing. It is important that graduates have the knowledge and skills to meet these increasingly complex demands. A BASDH will equip graduates with the necessary skills, knowledge, and training to meet the evolving dental hygiene needs of the surrounding communities and wherever career opportunities may take graduates.

2. Support of the statewide strategic plans.	Describe how the program will support SBCTC Mission goals outline in the Mission Study and WSAC policies and goals for higher education as articulated in the Strategic Master Plan for Higher Education.
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Supporting the SBCTC Mission Study goals

The SBCTC Mission Study (2010) states that: "our state's most urgent need is to educate more people to higher levels of skill and knowledge. This is the only way we can hope to sustain a prosperous economy that will provide opportunities for all of us, and for our children."⁴ The following outlines how Shoreline's proposed BASDH helps to achieve the goals expressed in the SBCTC Mission Study.

Goal #2. Close the statewide skills gap for technically trained workers.

Shoreline's BASDH pathway closes the skills gap by extending dental hygiene students the same opportunities offered at other colleges and universities. The BASDH will also provide the necessary technical skills for careers in dental hygiene.

Goal #4. Contribute to the production of more baccalaureate degrees.

The proposed BASDH will produce more baccalaureates in two ways. First, the new program will expand BAS access to place-bound students in Shoreline's service area. Second, starting in 2022, the Bridge Program will begin for licensed AAAS dental hygienists to obtain a BAS degree. The BASDH will save time and reduce overall tuition cost. Current Shoreline students complete 181 credits and receive an AAAS. To complete their bachelor's degree, students take an additional 61 credits through the EWU online bachelor completion program. Therefore, the BASDH Program will allow students to complete their bachelor's degree more quickly than current Shoreline students. Time and cost savings alone make a BASDH degree at Shoreline very attractive to students.

Goal #7. Invest in sustaining faculty and staff excellence.

Shoreline values professional development and faculty excellence. Shoreline is committed to providing continued support and funding to help faculty maintain licensure, certifications, and advance their education. By teaching advanced courses, faculty will further develop their areas of expertise.

Goal #8. Build a 21st century learning infrastructure.

Shoreline will continue to invest in hardware and software to provide up-to-date technologies for teaching and learning in today's classrooms. The students' primary clinical education consists of the treatment of periodontal patients, which exposes students to the most challenging clinical cases. Courses will be supported with current technology including: multi-media, online resources and a student friendly Learning Management System (LMS). Distance technologies will be supported by the campus e-learning team. The program will also have a new skills lab that will provide students with the latest standards in clinical simulations and pre-clinical training.

As part of the College's next major capital project, Shoreline plans to open a new dental hygiene clinic in the Pagoda Union Building (PUB), which will provide the program with better space and lighting. Its proximity to bus routes and parking will allow for easier community access. The new clinic will include dental chairs with more privacy to patients, greater functionality, a higher level of technology, and an open, professional, and friendly environment.

Supporting WSAC policies and goals for higher education

Shoreline's Dental Hygiene program is committed to advancing WSAC's priorities. Shoreline's BASDH aligns with WSAC's 2019-2021 goals in the following ways.

Create Affordable, High-Quality educational pathways

Offering a BASDH at Shoreline will streamline the pathways to a career in dental hygiene. Compared to the current route for AAAS students who wish to obtain a BASDH, the new Program will save students time and money. Moreover, dental hygiene is a growing career field, and its median wage of \$92,479 exceeds Washington's median wage of \$56,835.⁵

Close Opportunity Gaps

Currently, local students lack access to the same degree options that most other dental hygiene programs at community colleges provide in the state. A BASDH at Shoreline will extend the same opportunities to those in Shoreline's service area.

Reconnect Adult Learners

The Bridge Program will allow individuals with an AAAS to obtain a BASDH at Shoreline. Not only does this close opportunity gaps and create affordable, high-quality pathways, but it also engages adult learners who wish to advance in their careers.

3. Employer/community demand for graduates with baccalaureate level of education proposed in the program.	 Employer demand must exceed regional supply of graduates with relevant degrees. Demand must be based on data sources including but not limited to local employer survey, traditional labor market data, industry data, trade associated data, and other transactional data. Please provide evidence of the gap between the numbers of program graduates verses the number of job opening locally and regionally. Refer to attached supply/demand gap rubric for additional guidance.
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Using the supplied rubric (The Supply/Demand Rubric is located in Appendix I), this section provides supply and demand data and demonstrates that the entry-level degree standards for the occupation of dental hygiene are changing to a BASDH. Although the Commission on Dental Accreditation minimal education requirements for a dental hygienist currently remain an associate's degree, the ADHA has declared that it intends to make the BAS the entry degree-level for dental hygienists. The ADHA states:

"The American Dental Hygienists' Association declares its intent to establish the baccalaureate degree as the minimum entry level for dental hygiene practice in the future and to develop the theoretical base for dental hygiene practice."¹

Colleges in the region have responded to the ADHA's intent to change the entry level for dental hygiene to a BASDH. The colleges closest to Shoreline's service area, Lake Washington Tech and Seattle Central College now both offer BASDH degrees. Shoreline is one of only two Washington state community and technical colleges that doesn't offer a BASDH— as a result, its students are likely to be at a disadvantage in the coming years when competing for the same position with students who have earned a bachelor's degree.

This is indicative in employer survey responses in which 61% agreed that "all other things being equal, a dental hygienist with a bachelor's degree would be a more competitive applicant for a position within their practice compared to an applicant with an associate's degree." In this survey question, 14% were "neutral," 18% "disagreed," and 7% "strongly disagreed."

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)

Employer survey

To better understand the level of demand in the region, Shoreline conducted an employer survey among local dental hygiene clinics. Of the 28 responses, 27 came from private practice and one came from a community clinic. Survey results suggest that due to both a tight labor market and the lack of highly qualified workers, demand is high for hygienists. 61% of respondents agreed or strongly agreed that a bachelor's degree is most appropriate for entry-level hygienists. In the same question, only 7% "strongly disagreed," none "disagreed," and 32% were "neutral" regarding the appropriateness of a BAS for dental hygienists. It needs to be noted that, in the above text, "appropriate entry-level" is intended to capture the changes to industry standards. The Commission on Dental Accreditation requires dental hygienists to have earned an associate's degree.

In addition, 71% agreed or strongly agreed that a bachelor's degree is necessary for career advancement, while 21% were "neutral" and a little over 7% "disagreed" or "strongly disagreed." Of the employer respondents, nearly 68% "agreed" or "strongly agreed" that Shoreline should add a bachelor of applied science in dental hygiene, 25% were "neutral" and 7% "strongly disagreed."

Respondent comments also indicate strong demand and lack of supply. One respondent states: "[There is] lack of a sufficient pool of applicants relative to demand, it's not the quality it's the quantity." Another employer writes: "Not all hygiene schools are graduating hygiene students with the appropriate level of training and preparation."

A number of other respondents argue that higher levels of training and education (i.e. a BASDH) make dental hygienists more employable and open possibilities for advancement. For instance, one respondent comments:

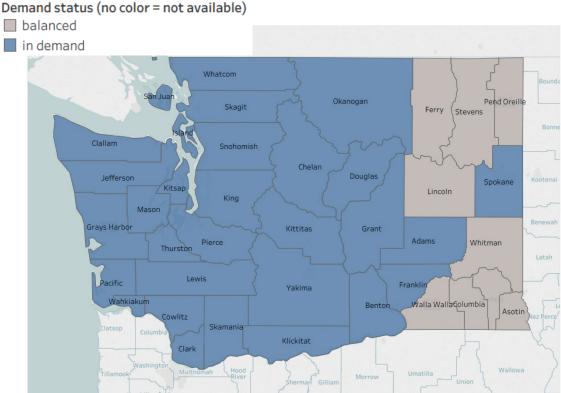
"While there seem to be applicants around, many lack the well-rounded education that comes with higher education degrees. Their interpersonal skills and ability to relate and emphasize with patients can be subpar."

Speaking to need for a BASDH, respondents say that the breadth of knowledge built into a BAS degree will resolve the skills gap in the current labor market. One respondent explains: A bachelor's degree calls individuals up to a higher state of learning and self-reflection. It can help to provide more well-rounded clinicians that are in touch with the world around them." Another respondent states:

"Such an undergrad requirement would help an applicant become better rounded especially with regard to advanced computer technology, general aptitude, communication, mathematical, science background and critical thinking as well as life context." However, not all respondents are receptive of Shoreline changing to a BAS. For instance, one comment reads: "[Some new dental hygienists have] poor skills, but having a bachelors will not improve hygiene skills." Other comments suggest that a BAS degree won't satisfy what employers see as a skills gap. Shoreline recognizes that skills gaps exist. The Dental Hygiene program is committed to working with local employers to ensure that no matter the credential—AAS or BAS— graduates of all programs possess the needed skills to thrive in their positions.

Local and national demand

According to the U.S. Bureau of Labor Statistics, in 2016, there were nearly 208,000 dental hygienists in the U.S. Between 2016 and 2026, the occupation is projected to grow by 20%, and its current mean salary is \$94,870.^{6,7} Dental hygienists are "in demand"^{*} throughout Washington State as well. The image below indicates the occupation is growing in most Washington counties.⁸ Job demand is for anyone with dental hygiene credentials regardless of earning a bachelor's or an associate's degree.



Occupational demand for dental hygienists in Washington

(WA Employment Security Department)

*According to WA Employment Security Department, "in demand" refers to occupations that have positive growth.

Several data sources identified the level of demand for dental hygienists in King and Snohomish Counties. EMSI, a labor-market analytics company, estimates that the region has as many as 267 annual openings between 2018 and 2022. EMSI compiles labor force data from a wide variety of government sources and job postings. Data from the Washington Employment Security Department, indicates annual demand to be at 124 openings, and a projected annual growth rate at around 2% through 2026.⁵

Projections for Shoreline's service area

County	Employment 2026		Annual openings
King	3123	2.0%	104
Snohomish	626	1.8%	20

(WA Employment Security Department)

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).
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Regional supply

The National Center for Education Statistics (NCES)** indicates an annual supply of dental hygienists (CIP code 51.0602) to be at least 102 and at most 151 for Shoreline's service area. The range stems from Eastern Washington University's online degree program, and therefore reflects an unknown number of graduates that become employed in Shoreline's service area.

Reviewing figures from O*NET, an occupation information portal sponsored by U.S. Dept. of Labor, and the Bureau of Labor Statistics (BLS), there is a growing trend of dental hygienists obtaining BAS degrees. According to O*NET, in 2010 79% of hygienists had an associate's degree and 22% had a bachelor's degree or higher. Reviewing BLS data for 2016-17 (their most recent posted data), the percent of hygienists with an associate's degree fell to 50% and those with a bachelor's degree or higher increased to 37.9%. (Please note that O*NET only collects this type of data every decade, thus using two different data sources was needed to make this comparison). Using these two data sets, there is a national trend for hygienists to enter the workforce with a BASDH. It is likely that this trend is affected by colleges responding to industry bodies intending to establish the baccalaureate degree as minimum entry-level education. Moreover, with most colleges in Washington State converting to a BASDH this trend will only intensify.

Consequently, Shoreline's AAAS-DH students will likely be at a disadvantage in the job market. This is seen in the employer survey in which 61% agreed: "all other things being equal, a dental hygienist with a bachelor's degree would be a more competitive applicant for a position within their practice compared to an applicant with an associate's degree."

The table below details the 2016-17 supply of associate and baccalaureate level graduates for dental hygienists from programs in King and Snohomish County. Note that Eastern Washington University, Lake Washington Institute of Technology, and Seattle Central College now all offer bachelor's degrees.

Dental Hygiene programs in Shoreline's service area	2016-17 graduates
Eastern Washington University (4-yr; 100% online)	49*

Lake Washington Institute of Technology	34
Pima Medical Institute (Seattle)	26
Seattle Central College	20**
Shoreline Community College	22

*Only a fraction of the total EWU graduates apply for Dental Hygiene positions in Shoreline's service area.

**The NCES system reported zero graduates from Seattle Central College in 2016-17, however this figure was obtained from the Program's Director.

In conclusion, based on regional labor market data, there is strong evidence of high demand for dental hygienists in Shoreline's service area, with an estimated growth rate of 2% through 2026. Various labor market sources estimate between 124 and 267 openings annually in King and Snohomish counties, and regional programs produce between 102 and 151 graduates annually. Local employers confirm this supply gap and support the need for dental hygienists to earn BASDH.

4. Applied baccalaureate	Describe the existing professional and technical degree program
program builds from existing	that will be used as the foundation for applied baccalaureate
professional and technical	program. Include how long the program has been in existence
degree program offered by	and the enrollment history of the program over the past five
the institution.	years.

Established in 1968, the Shoreline Dental Hygiene Program grants an AAAS, and was the state's first community college to offer a Dental Hygiene program. From the program's beginning, the on-campus dental hygiene clinic has served Shoreline students and the regional community. The program has met the needs of students, evolved to meet industry standards, and maintained its accreditation status with the Commission of Dental Accreditation (CODA).

Shoreline's current program accepts twenty-four (24) students each year, and has maintained near full enrollment since inception. The seven-quarter program educates two classes (48 students) at the same time, 1st year and 2nd year. Approximately 100-140 candidates apply each year for 24 positions. Prior to application a minimum of 60 credits of dental hygiene prerequisites are required by the end of Winter Quarter's application year and 65 credits prior to eligibility into the program. Once accepted in the program, students complete seven quarters (116 credits) of dental science, didactic courses, laboratory courses, pre-clinical courses, and clinical courses at the on-site dental clinic. Including prerequisites, the current AAAS degree requires four years of study and contains the total number of credits to earn an AAAS in Dental Hygiene (181 credits).

Since the required CODA curriculum for entry-level dental hygiene is the same for an associate and a baccalaureate degree, the course content is already commensurate with a BASDH. To ensure academic rigor and follow recommendations of the ADHA, the program will expand the research, leadership, and inter-profession educational components of curriculum with the conversion to a BASDH.⁹

Shoreline strives to adapt its education system to industry standards. Students practice among a variety of clinical chair styles and delivery systems. Graduates have reported, in exit surveys, the

different delivery system to be beneficial by preparing graduates when beginning in the private sector. New technology has been implemented throughout the years to align with advancements in education and the dental field, such as patient management software (Dentrix), advanced imaging in radiology, and innovative quality management patient tracking systems.

The program will also offer a newly developed simulation and materials lab (skills lab). This new lab enables students to practice pre-clinical techniques and procedures, which simulate real patient conditions. The lab includes custom-made dental hygiene workstations, radiology workstations, and five (5) fully-equipped dental chairs for practice and training. Because dental hygiene students use the skills lab on continuing basis, they will develop skills earlier and be better prepared to face the challenges found in clinical situations.

The table below shows the past eight years of students admitted, graduation numbers, and board results. Students must take three written and three clinical examinations prior to becoming licensed in the state of Washington. Shoreline graduates consistently pass the licensure exams. The following is a chart of the completion/graduation rates of the students in the program.

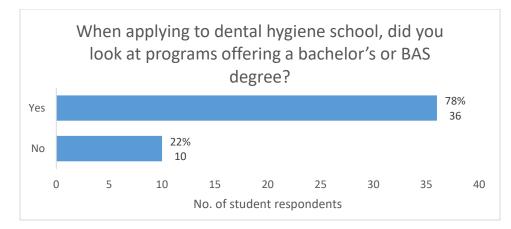
Year	Applicants	Accepted	Graduated	National Board Results	Clinical Board Results WREB
2018	119	24	24	23-Pass	24-Pass
2017	120	24	23	23-Pass	23-Pass
2016	112	24	24	24-Pass	24-Pass
2015	53	25	25	25-Pass	25-Pass
2014	34	26	24	24-Pass	24-Pass
2013	103	26	25	25-Pass	25-Pass
2012	156	24	24	24-Pass	24-Pass
2011	137	24	24	24-Pass	24-Pass

5. Student demand for program within the region.	Evidence of student interest and demand from multiple sources, such as but not limited to: students graduating with technical associate degrees in the region, survey of students within region, demand in excess of opportunity to enroll in related traditional bachelor's programs, and changes in industry standards. Include enrollment projections for each year over the next five years.
	years.

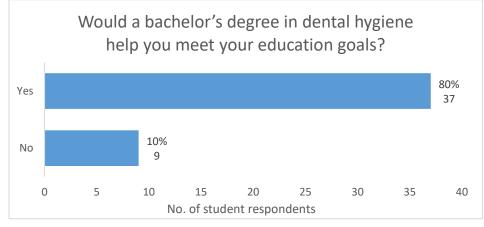
Student survey

Shoreline conducted a survey of Shoreline Dental Hygiene students to determine interest in a BASDH. The survey results indicate high demand for the proposed Program. Out of a total of 48 students who responded, 36 stated that when they were deciding on a program they had researched a BASDH degree (see Question 1). Of the respondents, 80% (37 out of 48) said that a bachelor's degree would meet their career goals (see Question 2).

Question 1, student survey



Question 2, student survey



Respondents were asked to provide their thoughts on a BASDH at Shoreline. The vast majority of comments were supportive of the proposal. One respondent states: "Having a BA in Dental hygiene will open more career opportunities." This comment captures a number of student responses, which indicates Shoreline students want more career options that accompany a bachelor's degree. The following comment also summarizes the sentiments of many student respondents.

I think it's important to have alternative career options within the dental field and a bachelor's degree would help facilitate that. The need for a bachelor's degree is becoming a requirement for job placement in some areas.

Since 2017, Shoreline has surveyed applicants who decline acceptance in its Dental Hygiene program. In the survey, they were asked why they declined, and of the two years of data, most said they wanted to enroll in an institution that offers BASDH degrees. In 2017, of those who declined, six out of eight, or 75% chose to attend BAS over AAAS. In 2018, all five, or 100%, of those who declined chose BAS over AAAS program.

The survey results demonstrate that students understand the importance of a BAS in Dental Hygiene, and that offering a BASDH at Shoreline would help students achieve their career goals.

Changes in industry standards

Washington State has always been a leader in dental hygiene education. Elevating Shoreline's program to a BASDH will retain its standing, but it will also align with the evolution of industry standards and the recommendations of the industry's professional bodies. The American dental hygienists' Association (ADHA) and Washington Dental Hygiene Association (WSDHA) are working to expand the roles and practice activities of dental hygienists in Washington State and across the country.^{1, 3}

It is the goal of the Dental Hygiene faculty to provide a broad educational experience that can support the delivery of health care as it changes to meet the demands of the community. There is a growing consensus within the dental hygiene community that a BAS is the future. This is indicated in a recent article in the Journal of Dental Hygiene, in which Boyleston and Collins state:

An entry-level bachelor's degree will move dental hygiene closer to the norm of other health professions. Similar to respiratory therapy in the 1980s, dental hygiene has experienced curriculum creep, squeezing too much information into dental hygiene curricula at the expense of the advancement of the profession. Accordingly, the rigor of the dental curriculum should be made equivalent to the degree granted.¹⁰

Bridge Program

Shoreline will offer a Bridge Program for those who earned their dental hygiene degree or certificate in Washington State in 1973 or after from a college accredited by CODA. Shoreline will accept Washington State dental hygiene degrees, certificates, and licenses that are active and in good standing. The Bridge Program will accommodate approximately 40 of the 60 upper division credits to meet BASDH requirements. Because the Bridge Program will accept licensed practitioners, it will not add to the overall supply of regional dental hygienists. In addition, Shoreline anticipates using distance learning as the mode of instruction because it is expected that Bridge students will be working. Shoreline will phase in the Bridge Program beginning Fall, 2022, capped at 30 students. The following year, 2023, Bridge Program capacity will increase to 60 students.

Based off current student enrollment, the student survey, and changes in industry standards, the table below provides Shoreline's five-year enrollment projections.

	2020-21	2021-22	2022-23	2023-24	2024-25
Dental Hygiene (BASDH)	48*	48	48	48	48
Bridge Program (AAAS	Not offered	Not offered	30	60	60
to BASDH)					
Total enrollment	48	48	78	108	108

*This number represents 2 cohorts of 24 students each, totaling 48 students per year.

6. Efforts to maximize state	•Describe how program will serve place-bound working adults.
resources to serve place-bound students.	•Identify similar programs offered by public or independent institutions in the region.

•Describe options that have been explored for collaboration with other public baccalaureate institutions, businesses, and /or community organizations considered in the development of the proposal and include a brief description of initial conversations.
•Describe collaboration with similar CTC BAS programs and related CTC Centers of Excellence.
•Describe unique aspects of the proposed program that differentiate it from similar programs and/or describe why expansion would be desirable or necessary.

Serving place-bound working adults

Several programs that offer BASDH degrees in the surrounding region are listed in the table below. However, for a variety of reasons, many students in Shoreline's service area are either unable or unwilling to relocate to pursue a BASDH. Traffic congestion is a daily problem that students take into consideration when deciding where to attend college. Relocating to pursue education is not feasible for many students. Not only can relocation be cost-prohibitive, but many Shoreline students have local jobs, homes, and/or family members to take care of. These life circumstances make it challenging for students to relocate. Offering a BASDH at Shoreline would extend the same opportunities to others who are unable to relocate to achieve their educational goals.

Table of similar programs offered in the Shorenne region		
College	Program	
Eastern Washington	Bachelor of Science in Dental Hygiene	
University (online)		
Seattle Central College	Bachelor of Applied Science in Allied Health Dental	
	Hygiene	
Lake Washington Institute	Bachelor of Applied Science in Dental Hygiene	
of Technology		

Table of similar programs offered in the Shoreline region

The new program would also allow students to enter their career field faster, reduce the financial burdens of relocating, reduce tuition expenses, and complete a BASDH more quickly. If students are successful in earning a BASDH upon graduation, they will experience increased job opportunities without having to expend additional resources, leave their families, or leave the area to complete the degree elsewhere.

Collaboration with colleges and industry

Currently, AAAS graduates can complete a bachelor's degree in dental hygiene through articulation agreements with Eastern Washington University. This program requires an additional 40 semester credits after completion of a rigorous dental hygiene curriculum. Historically, Eastern Washington University has collaborated with Shoreline and other community colleges (Lake Washington Institute of Technology, Clark College, and Pierce College) to create face-to-face learning opportunities locally. All satellite programs closed in 2013 with only a fully online option available today. Since there are few options for Shoreline students to earn a bachelor's degree without relocating, Shoreline has discussed the value of providing a BASDH with its Dental Hygiene Advisory Committee. Advisory members, who are local employers in King and Snohomish county, support the idea of a BASDH as the terminal degree for Shoreline graduates. The Advisory Committee weighs the time and credits students take in their training for each degree.

When designing the BASDH program, the Shoreline Community College Dental Hygiene faculty plan to collaborate with members of the Northwest Dental Hygiene Educators Association. Shoreline's faculty actively participate in the annual conference where all nine dental hygiene programs across the state share ideas and resources. Cooperation among faculty and directors allow for optimal solutions to current issues facing programs. Faculty have already engaged conversations around lessons learned when transitioning to a BASDH program and how best to augment pedagogy around research needed in a BASDH program. The directors of all nine programs in the state have expressed support for Shoreline's proposal. During meetings, directors extended their support and commitment to Shoreline in our transition to a BASDH program.

Each year, regional dental hygiene educators meet in the spring for Northwest Dental Hygiene Educator's Conference. The directors conduct a meeting to discuss all aspects of the dental hygiene programs in the state. This year, the directors' meeting was held on March 1, 2019 at the Bellevue Red Lion. Shoreline's Dental Hygiene Director discussed the proposed BASDH. At the meeting, all of the directors agreed that conversion to the BASDH degree will benefit students, the community, and the dental hygiene profession.

Shoreline has reached out to community colleges in the region to both inform them on the intent to establish a BASDH and to get their feedback. Feedback from all respondents was supportive of Shoreline's proposal to transition to a BASDH. Responses were received from Bellingham Technical College, Lake Washington Institute of Technology, and Pierce College Fort Steilacoom. Those responses are located Appendix II.

Further collaborations, support, and innovations

The University of Washington's Oral Biology Master's program and Pacific University's Dental Hygiene program (Hillsboro, Oregon) have both agreed to review Shoreline's completed curriculum to consider its merits for graduates pursuing advanced degrees. Eastern Washington University has stated it will welcome Shoreline graduates to apply to their Master of Dental Hygiene program, as well.

A BASDH program will also enhance the innovation of the AAAS program. Shoreline's Dental Hygiene Program was selected to collaborate with the newly developed University of Washington Health Resources and Services Administration (HRSA) Grant, titled: *The Early Childhood Oral Health Training Program (EChOTrain)*. The overall purpose of this program is to improve access to oral health care for young children (ages 0-5) in rural and/or other underserved populations. This will be accomplished through development and delivery of an innovative didactic and clinical pediatric training program for dental hygiene students.

The Shoreline Dental Hygiene program is the only dental hygiene program in the state participating in this externship opportunity. In its pilot year, Shoreline's Dental Hygiene students

will receive novel pediatric dental curriculum geared toward restorative dental hygienists; increased exposure to pediatrics in restorative dental hygiene practice at the Center for Pediatric Dentistry; and practice restorative dental hygiene within external rotations at Shoreline Community College's affiliated site, the Community Health Center of Snohomish.

Since 2011, Shoreline has shown innovation by offering Dental Hygiene students a study abroad opportunity in Bolivia. The Program partners with Smiles Forever Dental Hygiene School in Cochabamba to offer students firsthand experience with a unique humanitarian model, which won the 2013 Andrew Heiskell Award for Innovation in International Education. Through this opportunity, students and faculty see the impact of social, economic, political, and environmental forces that determine the quality of life and the oral health for people in impoverished communities.

Conclusion

Shoreline is excited to work with SBCTC to establish its first BAS program, the BASDH. Shoreline's mission is to serve the educational, workforce, and cultural needs of its diverse students and communities. Transitioning the AAAS program to a BASDH helps to achieve this goal. As the field of dental hygiene evolves, employers increasingly seek hygienists with a BAS degree. Industry standards have also indicated that a BAS will serve changing oral health and patient-care needs. Moreover, dental hygienists in Washington State and in Shoreline's service area are in high demand. Offering a BASDH at Shoreline will align the appropriate degree with regional workforce demands. For all these reasons, Shoreline is ready to provide students with the necessary credentials for a successful career in dental hygiene.

References:

1. *American Dental Hygiene Association Policy Manual 2015* p. 22. Retrieved from <u>https://www.adha.org/sites/default/files/7614_Policy_Manual.pdf</u> on October 12, 2018.

2. National Governors Association, *The Role of Dental Hygienists in Providing Access to Oral Health Care* January 2014 p. 1 Retrieved from: <u>https://classic.nga.org/files/live/sites/NGA/files/pdf/2014/1401DentalHealthCare.pdf</u> *on Dec. 15, 2018.*

3. Washington State Dental Hygienists' Association, Policy Manual 2015, p.2. Retrieved form <u>www.wsdha.com</u> on March 16, 2018.

4. WA State Board for Community and Technical Colleges Mission Study, May 2010. p. 1.

5. Washington State Employment Security Department. Retrieve from: <u>https://esd.wa.gov/labormarketinfo/median-hourly-wages</u> on Jan. 7 2019.

6. United States Department of Labor, Bureau of Labor Statistics (2014).Retrieved from http://www.bls.gov/ooh/healthcare/dental-hygienists.htm#ab-4

7. United States Department of Labor. Retrieved from <u>https://www.bls.gov/ooh/healthcare/dental-hygienists.htm</u> on Jan. 5, 2019.

8. WA Employment Security Department. Retrieved from: <u>https://esd.wa.gov/labormarketinfo/LAAO</u> on Jan.

9. American Dental Hygienists' Association, Transforming Dental Hygiene Education and the Profession for the 21st Century white paper, p.3, 18-19.

10. Boyleston, E., Collins, M. Advancing Our Profession: Are Higher Education Standards the Answer? *Journal of Dental Hygiene* 2012; 86(3): 168-175.

Appendix I Supply/Demand Gap Rubric

College Name: Shoreline Comn	College Name: Shoreline Community College		
Program Name: BAS Dental Hy	giene		
Select one: Existing Occupation	\boxtimes or Emerging Occupation \square		
If local demand/supply i	nformation is available for the specified degree program and target occupation(s),**		
	Annual openings (for hygienists with a BAS or AAAS)		
	According to WA Employment Security Department:		
	King county: 104		
	Snohomish county: 20		
	Total: 124		
For demand: Provide	According to EMSI:		
local/regional demand data for the targeted occupation	Regional demand: 267		
job title(s) from traditional labor market data, industry	Total annual demand Range: 124-267		
data, trade association data,			
or other transactional data.	Growth projections		
(Provide absolute numbers,	King county: 2%		
not just percentages)	Snohomish county: 1/8%		
	Projected employment 2026		
	King county: 3123		
	Snohomish county: 626		
	Total: 3,749		

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).	 Dental Hygiene supply in Shoreline's service area, 2016-17 graduates: Eastern Washington University (4-yr university; 100% online), 49* Lake Washington Institute of Technology, 34+ Seattle Central College, 20+** Pima Medical Institute (Seattle), 26 Shoreline Community College, 22 +Now a BAS granting program *Only a fraction of the total EWU graduates apply for Dental Hygiene positions in Shoreline's service area. **The NCES system reported zero graduates from Seattle Central College in 2016-17, however this figure was obtained from the Program's Director. Demand estimates are between 124 and 267 openings annually in King and Snohomish counties. Regional programs produce between 102 and 151 graduates annually. Supply minus demand ranges between 22 and 167.
OR, if demand i	nformation 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</u> <u>requirements are listed</u> <u>below</u> .	Quotes from Shoreline employer survey: "Such an undergrad requirement would help an applicant become better rounded especially with regard to advanced computer technology, general aptitude, communication, mathematical, science background and critical thinking as well as life context." "A bachelor's degree calls individuals up to a higher state of learning and self-reflection. It can help to provide more well-rounded clinicians that are in touch with the world around them."

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</u> <u>listed below</u> .	According to Shoreline's employer survey: Question: "A bachelor's degree is most appropriate for entry-level hygienists." 61% "agreed" or "strongly agreed," 32% were "neutral," and 7% "strongly disagreed." Question: "all other things being equal, a dental hygienist with a bachelor's degree would be a more competitive applicant for a position in their practice than one without." Nearly 61% "agreed" or "strongly agreed," 14% were "neutral," nearly 18% "Disagreed," and 7% "strongly disagreed." Question: "A bachelor's degree is necessary for career advancement." 71% "agreed or "strongly agreed," 21% were "neutral," and 3.6% "disagreed" and another 3.6% "strongly disagreed."	
OR, if based on a statutory or accreditation requirement, **		
Select one: Statutory Requirem	ent \square or Accreditation Requirement \square	
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	 The American Dental Hygienists Association states that it: "The American Dental Hygienists' Association declares its intent to establish the baccalaureate degree as the minimum entry level for dental hygiene practice in the future and to develop the theoretical base for dental hygiene practice." The ADHA still "supports all aspects of formal dental hygiene 	
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.	 The ADHA still supports all aspects of formal dental hygiene education which includes certificate, associate, baccalaureate, and graduate degree programs." (Source: American Dental Hygiene Association Policy Manual 2015 p. 22.) 	

For supply gap: Provide	Shoreline employer survey results:	
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	71% of respondents said that they would have between 1 to 3 openings for dental hygienists in the next three years. Nearly 4% said that they would have 7 or more openings. (Note: This is for both AAAS and BAS hygienists)	
available to fill jobs with the new requirements. <u>Survey</u> <u>requirements are listed</u> <u>below</u> .	It is important to note that the coming changes to degree standards means that associate's level dental hygienists will be at a disadvantage in the coming years as more positions open.	
	Survey respondents state:	
	"While there seem to be applicants around, many lack the well-rounded education that comes with higher education degrees. Their interpersonal skills and ability to relate and emphasize with patients can be subpar."	
	"Not all Hygiene schools are graduating hygiene students with the appropriate level of training and preparation."	
* Demand is defined by state law as "an occupation with a <u>substantial</u> number of current or projected employment opportunities."		
	rmation related to more than one option (i.e., labor market data to support the local	
	a local employer survey to support that there is a gap in the number of qualified	

Appendix II

The following are email comments in support of the Shoreline Dental Hygiene program proposal to offer a BASDH.

Bellingham Technical College:

Bellingham Technical College Dental Programs are in full support of Shoreline Community College offering a Bachelor of Applied Science in Dental Hygiene. We wish the program every success and hope to follow in your footsteps.

Alisa Wollens, RDH, CDA, MBA

Program Coordinator Dental Hygiene, Dental Assisting and EFDA Programs Bellingham Technical College 3028 Lindbergh Ave. | Bellingham, WA 98225

Call: 360.752.8570 | Office: B8b



Lake Washington Institute of Technology:

The dental hygiene program at Lake Washington Institute of Technology fully support Shoreline CC in seeking to change the current Associate degree dental hygiene program to a Bachelor of Applied Science degree.

All programs in the State of Washington have to meet the accreditation standards through the Commission on Dental Accreditation (CODA), and as long as Shoreline CC maintains full accreditation status and meets and/or exceeds the basic education requirements for a Bachelor degree, it will definitely benefit the students Shoreline CC serves.

Cindy Ko

Cindy Ko, RDH, MA

Interim Associate Dean, Dental Programs

Lake Washington Institute of Technology

11605 132rd Avenue N.E.

Kirkland, WA 98034-8506

Pierce College Fort Steilacoom: Excellent! Wishing you the best! Kind Regards,



Monica L. Hospenthal

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