DEMAND ANALYSIS TO ACCOMPANY NOTICE OF INTENT FOR NEW OR EXTENDED DEGREES

The information from this form will be used:
- In summary form in the Notice of Intent
- In the Financial Analysis spreadsheet
- In the New Degree Proposal form
- In the submission for accreditation to the Northwest Commission on Colleges and Universities after approval by the Board of Regents

Using the information you developed in the Demand Analysis Workbook, please complete the form below and submit with your Notice of Intent. You do not need to submit the Workbook itself.

Proposed Degree	Computer Science	Location:	Everett

1. **Employer Demand**

    If you are extending a degree, or have a related existing degree, briefly summarize the employment outcomes for your graduates.
    What is the state and regional employment demand for this degree?
    Is long-term employer demand expected to grow, remain stable, or decline?
    What is your evidence?

Answer here:
Graduates with a degree in Computer Science generally have strong employment outcomes. For example, alumni from similar programs including WSU Pullman have secured positions at leading tech companies such as Amazon, Apple, Boeing, Cisco, Google, Intel, and Microsoft. These roles include software development, hardware design, network engineering, and data science, reflecting the versatility and high demand for computer science skills.   In Washington state, the demand for computer science professionals is robust. The tech industry in the Seattle metropolitan area, which includes Everett, is a significant driver of this demand. According to the U.S. Bureau of Labor Statistics, the employment of computer scientists is projected to grow by 10% from 2018 to 2028. This growth is driven by the increasing reliance on technology across various industries, including aerospace, healthcare, and manufacturing, all of which are prominent in Washington state.   Long-term demand for computer scientists is expected to continue growing. The CompTIA State of the Tech Workforce report indicates that tech occupation employment will grow at about twice the rate of overall employment across the economy over the next decade. This growth is fueled by ongoing digital transformation initiatives and the need for advanced computing systems in various sectors.   Additionally, Litecast data suggests that Snohomish, Skagit, and King Counties show strong occupational demand for Computer Science roles, particularly Software Developers, along with Computer Systems Analysts; Computer and Information Systems Managers; and Computer User Support Specialists. Across the three-county region, net demand for Computer Science occupations declined by 2.1% from 2022-2024. However, much of this is being driven by declines within King County. Within the same period, demand for Software Developers grew by 5.7% in Skagit County and by 11.8% in Snohomish County, precisely where the Everett campus is located.

2. Competitors

Who are your competitors? What is their competitive advantage? Are competitor-institutions planning to introduce similar programs/expand existing ones? Why is your department/school able to provide the proposed new degree better than other WSU departments/schools or other universities?

Answer here:

Competitors:
- **University of Washington (UW)**: UW offers a highly regarded Computer Science program with strong industry connections and extensive research opportunities. UW's competitive advantage lies in its extensive research facilities, high-ranking faculty, and strong industry connections, particularly in the Seattle tech hub.
- **DigiPen Institute of Technology**: Known for its focus on video game and animation careers, DigiPen offers specialized programs that attract students interested in these fields. DigiPen's niche focus on video game development and animation provides a unique appeal to students interested in these specific career paths.
- **Seattle University**: Offers a comprehensive Computer Science program with a strong emphasis on hands-on learning and industry partnerships. Seattle U. emphasizes practical experience and industry partnerships, providing students with ample internship and job placement opportunities

Many institutions are continuously evolving their programs to stay competitive. For example, UW is known for regularly updating its curriculum to incorporate the latest technological advancements and industry needs

WSU Everett's Unique Strengths
1. **Industry Partnerships and Internships:** WSU Everett has strong industry-university partnerships that provide students with valuable internship opportunities and real-world experience. This hands-on approach ensures that graduates are well-prepared for the job market.
2. **Comprehensive Curriculum:** The Computer Science program at WSU combines elements of computer science, software engineering, and cybersecurity, providing a well-rounded education that prepares students for various career paths. The underlying degree programs on which the Computer Science curriculum relies on are already well established on the Everett campus.
3. **Accreditation and Quality:** The program is accredited by the Engineering Accreditation Commission of ABET, ensuring that it meets high educational standards and provides a quality education
4. **Community and Support:** WSU Everett offers a supportive community with resources such as free tutoring, study groups, and access to well-equipped laboratories. This environment fosters collaboration and academic success.

3. Student Demand

Describe the target market in light of regional population trends, especially in the target age group.
What is the current number of students in existing programs in the proposed market area in this field? What is the potential number of students forecasted?
What are the key characteristics of the market segment you seek? How will your degree serve their needs?

Answer here:

The target market for the Computer Science bachelor's degree at WSU Everett primarily includes high school graduates and young adults aged 18-24. According to the Washington State Office of Financial Management, the state's population is growing steadily, with significant increases in the central Puget Sound region, which includes Everett. The region's population reached 4.48 million in early 2024, with a notable proportion of this growth occurring in the target age group.

At WSU, the School of Electrical Engineering and Computer Science currently enrolls approximately 1,094 undergraduate students across its four campuses. Specifically, the Everett campus has seen enrollment in related programs such as Software Engineering, which had 56 students in Fall 2021 prior to the Covid pandemic. This indicates a strong interest in computer related programs at the Everett campus.

Given the steady population growth and the increasing demand for tech professionals, the potential number of students for the Computer Science program at WSU Everett is promising. The overall enrollment in computer science and engineering programs at WSU increased by 10% from 2013 to 2021. With the tech industry's continued expansion, it is reasonable to forecast a similar or higher growth rate for the new program.

The target market segment includes:
- High School Graduates: Students from local high schools looking to pursue a career in technology.
- Community College Transfers: Students from nearby community colleges seeking to complete their bachelor's degree.
- Working Professionals: Individuals in the workforce looking to upskill or transition into tech roles.

The degree can serve the needs of this target market by providing accessibility, industry-relevant curriculum, career opportunities, and a supportive environment. Offering the program at the Everett campus makes it more accessible to students in the northern Puget Sound region, reducing the need for relocation. The program will provide a comprehensive education in computer science, covering additional coursework in topics such as AI and cybersecurity, which are highly sought after by employers. Strong industry partnerships will offer students internships, job placements, and networking opportunities, enhancing their employability. WSU Everett's resources, such as tutoring and study groups, will support student success and retention.

Expected FTE					
Year 1	10	**Year 2**	15	**Year 3**	20

How did you arrive at these numbers? How do they compare with your current enrollments in an existing degree or option, or related degree?

Answer here:
These numbers are based on gauged student interest from local community colleges as well as recruitment fairs. These numbers are comparable to enrollments in similar degree options that are more established, focusing on a steady state cohort size of 20-30 students. The Computer Science degree will pair nicely with the existing electrical engineering and software engineering degrees available on the Everett campus and will help bolster class sizes for courses already on the schedule for these existing programs.

4. **Recruitment Plan**

How and where are students going to find out about this program? Who will represent this department in its promotion activities? What specific venues can you use to promote an awareness of this new program? What means will be used to access and educate businesses, industry, agencies, and/or institutions about this offering?

Answer here:
The WSU Everett website and social media channels (e.g. Facebook, LinkedIn) will be primary platforms for promoting the new Computer Science program. Regular updates, student testimonials, and success stories can attract prospective students. Partnering with local community colleges and high schools to provide information sessions, workshops, and participation in college fairs can help reach potential students directly. Establishing transfer pathways and holding information sessions at nearby community colleges can attract students looking to

complete their bachelor's degree. Utilizing targeted online ads on platforms like Google, Facebook, and LinkedIn can reach a broader audience interested in tech and engineering careers.

Program coordinators and faculty from EECS at WSU Everett will participate in outreach events and information sessions to provide insights into the program. The admissions team at WSU Everett will play a crucial role in promoting the program through campus tours, open houses, and one-on-one meetings with prospective students. Additionally, the admissions team and faculty will participate in local and regional college transfer fairs and career expos can help raise awareness among community college students as well as high school students and their families. Faculty and staff participate and present at local tech conferences, hackathons, and tech meetups additionally to spread name recognition and attract students interested in the field. Additionally, WSU Everett has significant community engagement by hosting community events, such as a Girls Explore STEM event and a variety of workshops, which can help promote the program to a wider audience.

We will leverage community college partnerships, professional associations and corporate outreach regarding the degree. WSU Everett is intent on collaborating with local community college faculty and leadership to create pathway opportunities, hire adjunct faculty, and facilitate joint research and academic programs. WSU Everett EECS faculty engage with professional associations like local Seattle section chapters of IEEE and ACM to share information about the program through their networks and events. WSU Everett staff provide outreach to HR departments and training managers at tech companies to inform them about the program and potential collaboration opportunities.