**New Undergraduate Degree Program Proposal:**

**Bachelor of Science in Software Engineering**

Oregon State University – Cascades, College of Engineering

**Overview:**

Oregon State University - Cascades proposes the creation of a new four-year degree program in Software Engineering. The program meets a significant market demand, enhances the portfolio of programs within the College of Engineering, demonstrates innovative curriculum design, and reflects the mission and values of Oregon State University.

The software engineering degree offers a more focused experience than the general computer science degree, emphasizing the processes, technologies, tools, methodologies, design, architecture, and theory of building long-lasting, scalable software systems. The proposed software engineering program achieves its learning outcomes through an innovative, team-based, project-driven curriculum delivering a cohesive four-year learning experience. Compared to the general computer science degree, which covers a broad variety of topics, the software engineering degree provides a more specialized learning experience.

**Location, Modality, Start Date, & Enrollment:**

The OSU-Cascades campus will deliver the Software Engineering program as a face-to-face, on-campus program in Bend, while housed within the OSU College of Engineering. The program is expected to launch Fall 2019. We anticipate an initial enrollment of approximately 12 students, growing to a headcount of approximately 73 in year 5 and beyond.

**Mission Alignment:**

Strategically, one priority for the OSU-Cascades campus is to distinguish itself with innovative, world-class, “destination degree programs” not offered at most institutions. The Software Engineering program exemplifies these qualities, following the success of the existing Energy Systems Engineering program and co-existing with other innovative new programs such as Outdoor Products.

OSU-Cascades is a critical player in the social and economic development of Central Oregon and cannot serve the needs of the students and employers of the region without further expansion of academic programs and degrees. In addition, Central Oregon Community College’s role cannot be understated, where over 86% of all Central Oregon students in higher education are enrolled. The Software Engineering program capitalizes on the lower division preparation provided by COCC to remote communities to recruit diverse students. By working in partnership with COCC, we have created a pathway to the undergraduate degree that can be started at either institution.

Within the state of Oregon, software engineering shares a presence with computer science programs at numerous Oregon universities, include OSU (Corvallis), Portland State, and University of Oregon. The Oregon Institute of Technology campus in Klamath Falls is the only Oregon institution that offers a similar program, Software Engineering Technology. We are engaged in a collaborative dialog with Oregon Institute of Technology regarding the software engineering program. While similar in name, the OIT program meets different ABET criteria, has different learning outcomes, and consists of a different curriculum. We intend to share our experience of the new software engineering program, and learn from OIT’s experience, to help define what works well and what does not.