I. Pre-Authorization: Notice of Intent

BACHELOR OF SCIENCE DEGREE IN APPLIED COMPUTING

University of Wisconsin-Milwaukee
University of Wisconsin-Oshkosh
University of Wisconsin-Platteville
University of Wisconsin-River Falls
University of Wisconsin-Stevens Point

With administrative and financial support from the University of Wisconsin-Extension

A. Name of proposed degree, institutional setting, mode of delivery, and institutional contact information.

Name of Proposed Degree: Bachelor of Science in Applied Computing
Institutional Setting: Collaborative program across the UW System
Mode of Delivery: Online
Institutional Contact Information: David Schejbal, Dean
University of Wisconsin-Extension
Continuing Education, Outreach and E-Learning
Email: David.Schejbal@uwex.edu
Phone: 608-262-2478

B. Clear statement on how the program fits with institutional mission, strategic plan, and existing program array.

The collaborative, online, B.S. in Applied Computing degree-completion program contributes directly to the institutional mission of the University of Wisconsin System which defines a commitment to “discover and disseminate knowledge, to extend knowledge and its application beyond the boundaries of its campuses.” Consistent with the mission of UW-Extension, the proposed online degree program allows working adults located across the state and region to access university resources and engage in learning, wherever they live and work, through the use of technologies.

The degree also supports the institutional missions of the five partner campuses by developing the students’ competencies in communication, critical thinking, problem solving, analytical skills, leadership, teamwork, and collaboration. Furthermore, this will be a multidisciplinary degree that will help build bridges between disciplines and develops students’ abilities to think in terms of systems and interrelationships, and within complex organizations. There is consensus among the five academic partners that the B.S. in Applied Computing degree program will serve as a valuable complement to their existing undergraduate program array and will not compete with any program currently offered through their institution.

C. Program description.

The online B.S. in Applied Computing degree program represents a fixed curriculum comprising 20 three-credit courses and a one-credit capstone preparation course. The program offers a balance of coursework primarily in the areas of theoretical and applied computing and information systems to prepare students for multiple pathways into the information technology workforce or support their career advancement if already working in the field. Additional coursework in math, communications, ethics, and project management will serve to further
enhance their skills and professional competencies. The capstone course, which serves as the culminating experience in the program, will provide students with the opportunity to participate in a practical, project-based learning experience to demonstrate technical proficiency, analytical thinking and problem solving abilities, project management skills, and communication expertise. Students completing the B.S. in Applied Computing will leave the program as professionals with the following established competencies:

- Demonstrate a solid foundation in core computer science
- Demonstrate a solid foundation in software engineering practices
- Recognize and address security issues
- Implement a computing solution for a business problem
- Demonstrate effective oral and written communication skills
- Demonstrate a solid foundation in data management

It is anticipated that the online program will predominantly attract adult and nontraditional students who have completed an associate degree or equivalent credits and have a desire to continue their education toward a bachelor’s degree, primarily to expand knowledge and specialized skills in the field and for career advancement. Students will apply to one of the five partner institutions. Upon a student’s admittance, that institution will become the student’s administrative home for the degree through graduation. The program will have an academic director at each institution, and each campus will host four to five courses in the curriculum. Students will receive academic advising regarding admission and graduation requirements, and financial aid through their home institutions. UW-Extension will provide administrative and financial support to the program.

D. Need for program

Based on our research, that includes direct input from industry professionals, there is a clear and growing demand for people who can provide the technical knowledge to support an array of computer systems and applications and possess the skills needed to develop working solutions for computing challenges. In early 2014, UW-Extension commissioned the Education Advisory Board (EAB) to conduct research regarding the market demand and viability of an online bachelor’s degree in the area of computer science and information technology. The resulting Custom Research Brief (January 2015) identified strong demand in the Midwest region for professionals with this background based on a comprehensive labor market analysis with employers in the region posting nearly 80,000 job opportunities for computer science professionals from January 2014 to December 2014. Professional, technical, and scientific companies posted the highest number of job opportunities for computer science professionals as well as insurance carriers and financial corporations. Typical positions/job titles included software development engineer, software developer, business analyst, applications developer, systems engineer, web developer and database administrator.

Employment in computer and information technology occupations is expected to increase by 22 percent through 2020, according to the U.S. Bureau of Labor Statistics. The median annual wage for computer and information technology occupations nationally was $81,430 in May 2015, which was higher than the median annual wage for all occupations of $36,200. According to PayScale, an online salary database, computer and information technology related bachelor degrees consistently rate as the most popular based on high earning potential, low unemployment rates and a range of career options for graduates. The proposed B.S. in Applied Computing degree-completion program would represent a unique online offering within the UW-System.