

November 2011

Bachelor of Applied Science in Healthcare Technology and Management Bellevue College

Introduction

Bellevue College proposes to offer a Bachelor of Applied Science in Healthcare Technology and Management beginning Fall 2012. This self-supporting degree will articulate with Washington community and technical college information technology-related applied associate degrees, and information and records management applied associate degrees. Enrollment is projected to be 30 FTE (47 headcount) students in 2012, increasing to 61 FTE (90 headcount) students by 2015. By 2015, 28 students are expected to graduate annually.

Relationship to Institutional Role and Mission and the Strategic Master Plan for Higher Education in Washington

The proposed program will support the college's mission of advancing "the life-long educational development of its students while strengthening the economic, social, and cultural life of its diverse community" by offering an educational path that will provide new career and career advancement opportunities for associate degree holders in a field that is among the fastest growing in the nation. In doing so, the proposed program also directly supports the *Strategic Master Plan for Higher Education's* goals to increase educational attainment and promote economic growth.

Program Need

Healthcare technology and management is an emerging field that is not currently tracked by the U.S. Bureau of Labor Statistics (BLS). However, BLS does project employment to grow in the related fields of medical records and healthcare information and medical and health service managers by 20 percent and 16 percent respectively. In Washington, Workforce Explorer Labor Market and Economic Analysis predicts that the average annual openings for medical records and health information technicians are expected to grow 22 percent by 2018¹.

¹<http://www.workforceexplorer.com/cgi/databrowsing/occExplorerQSDetails.asp?searchCriteria=medical+records&careerID=&menuChoice=occExplorer&geogArea=5301000000&soccode=292071&search=Explore+Occupation>

The proposed program will be unique in Washington by training individuals to manage and perform the customization, implementation, integration, and maintenance of healthcare information systems, data, and components. The bachelor's degree in Health Informatics and Health Information Management at the University of Washington focuses on managing health records, rather than healthcare data systems. Western Governor's University offers a degree similar to the University of Washington program. Eastern Washington University offers a bachelor's degree in Health Services Administration focused on healthcare information technology, but does not accept students with professional or technical degrees. The proposed program will provide a pathway for students holding professional or technical degrees.

Program Description

The proposed 183-185 quarter credit applied baccalaureate degree program will prepare students for the healthcare information technology workforce. The curriculum combines information technology (IT) systems infrastructure, analysis, implementation, and operations in the unique context of healthcare. A full-time student will enter as a junior and be able to complete the program in two years. Depending on the number of credits a part-time student takes, s/he should be able to complete the degree in about three years.

Admission Requirements

Students seeking admission to the program will be required to possess an associate degree in an IT-related field or an associate degree in health records or management. Students also must have basic computer skills including basic personal computer file management, Internet navigation, and Microsoft Office program experience. Students with a healthcare background will acquire essential IT skills by completing three prerequisite IT courses: networking basics, introduction to programming, and business data management tools. Similarly, students coming into the program with an IT background will gain important knowledge about working in healthcare by completing courses in medical terminology; healthcare policies and delivery systems; and healthcare safety, quality, and legal environment, prior to enrolling in the core courses.

General Education Requirements

Students will be required to complete 60 quarter credits to meet the general education requirements for the proposed program. This includes 35 quarter credits expected to be satisfied through the associate degree. These credits encompass 10 credits of written communication skills, including English 101; five credits of quantitative skills; five credits of humanities; five credits of social science, including a communications course; and 10 credits of natural science, including one life science course and one lab course. The remaining 25 quarter credits will be satisfied at the upper-division level by applied courses in economics, organizational theory, ethics, and analytics.

Core Coursework

After completing the necessary prerequisites, students will complete 16 five-credit core courses for a total of 80 quarter credits. Most of the curriculum is composed of courses focused on the analysis or implementation of healthcare information technology systems. Students will complete courses in project management, economics of healthcare, organizational theory and behavior, healthcare finance, and a special topics course designed to cover advanced or emerging issues in healthcare IT. In addition, students will complete a field studies course. Students also will complete a capstone course, which will enable them to apply critical thinking, problem solving, communications, and analytical skills that they have developed throughout the program.

Faculty

Faculty in the proposed program will be required to hold a minimum of a master's degree and possess college-level teaching experience. Faculty teaching the core courses must have work experience in health informatics, healthcare information technology, or healthcare administration. Faculty will be expected to teach in their area of expertise and maintain current knowledge and skills in their area of assignment.

Assessment

Both student learning and program assessment will build upon the comprehensive student achievement and program assessment processes currently in place at Bellevue College. Course learning outcomes will be assessed through rubrics developed for each course that use formative and summative assessment tools to measure what students are learning and how well they meet the course outcomes.

Program assessment will encompass multiple measures. Staff will collect and analyze data annually on student satisfaction, preparedness, and retention; faculty assessment of student preparedness; and effectiveness of courses to meet the program outcomes. Employers will also engage in reviews of the curriculum and program elements through an advisory committee for the proposed program. This information will be used to continuously refine the curriculum to meet the program objectives and to keep the program current.

Accreditation

Since healthcare information technology is an emerging field, no appropriate accrediting programs currently exist.

Options Beyond the Baccalaureate Degree

Graduates of the proposed program will have several options for furthering their education. Bellevue College is working with faculty in the University of Washington master's programs in health informatics and health information management, biomedical and health informatics, and health services administration, who have expressed interest in collaborating to create direct pathways for graduates of the proposed program.

Additional options may be available. For example, nurses who complete the proposed program also may be admissible into nursing informatics. Individuals interested in the business aspect of healthcare may be ready for a Master of Science in Information Systems or a Master of Business Administration in Information Systems. For graduates interested in technology, advanced degrees in computer science, engineering, or information systems may be options.

Program Costs

The proposed program will enroll 30 FTE students the first year, increasing to 61 FTE students the fifth year. The program will require 1.0 FTE faculty the first year, 2.0 FTE faculty the second year, and 3.0 FTE faculty the third year and beyond. Most of the courses will be taught by existing faculty, although the college plans to hire one additional faculty member with credentials in health administration or healthcare information technology to teach one or more of the core courses. A full-time administrative assistant/student services coordinator and a half-time online curriculum specialist also will be hired to support the program.

At full enrollment in the fourth year, the total cost of instruction would be \$417,401, or \$6,843 per annual FTE student. This is comparable to the estimated cost of \$6,646 per FTE student for Eastern Washington University's Bachelor of Science in Health Informatics Technology and Management, approved by HECB in November 2010.

The proposed program will be self-supporting through tuition and fees. Tuition will be the same amount as the existing applied bachelor's degree programs at Bellevue and other state-supported bachelor of applied science programs, which are required to charge the same tuition as the state's regional colleges. In 2012, this is assumed to be about \$232 per credit.

External Review

Two external reviewers evaluated the proposal: Dr. Elliot Sloane, Professor of Health Systems Engineering at Drexel University School of Biomedical Engineering and Health Systems and Executive Director and Founder of the Center for Healthcare Information Research and Policy; and Margaret Shulte, DBA, FACHE, CPHIMS, who is an educator, author, and consultant in health policy and administration. Both reviewers supported the proposed program and made several suggestions, all of which were addressed by the college. Dr. Sloane stated: "We are desperately short of properly educated undergraduate students for the health technology field, and your program should help us begin to remedy that problem." Ms. Shulte noted that the proposal was "comprehensive and reflects thoughtful and thorough work in the development of this new program."

Staff Analysis

The proposed program will expand access to higher education in the Puget Sound Region in a way that supports the *Strategic Master Plan for Higher Education* and Bellevue College's mission.

The proposed program will respond to employer, student, and community demand at a reasonable cost by building on existing information technology and select allied healthcare programs at the college, and without duplicating other programs in the state. It will provide a viable pathway for individuals seeking to enter or advance in the field of healthcare information technology in the region and throughout the state.

Both external reviewers supported the proposed program. In addition to covering core areas, the curriculum will also incorporate current trends in an emerging field. Student and program assessment would both employ multiple measures.

Staff Recommendation

After careful review of the proposal and supporting materials, staff recommends approval of the Bachelor of Applied Science in Healthcare Technology and Management at Bellevue College. The HECB's Education Committee discussed the proposal during its November 1, 2011 meeting and recommended approval by the full Board.

RESOLUTION NO. 11-26

WHEREAS, Bellevue College proposes to offer a Bachelor of Applied Science in Healthcare Technology and Management; and

WHEREAS, The program would support the *Strategic Master Plan for Higher Education*, as well as the university's mission; and

WHEREAS, The program would respond to student, employer, and community demand without duplicating existing programs; and

WHEREAS, The program has support from external reviewers; and

WHEREAS, The program would be offered at a reasonable cost; and

WHEREAS, The program would be offered online as well as on-site at the Bellevue College campus;

THEREFORE, BE IT RESOLVED, That the Higher Education Coordinating Board approves the Healthcare Technology and Management degree at Bellevue College, effective November 17, 2011.

Adopted:

November 17, 2011

Attest:

Ethelda Burke, Chair

Earl Hale, Vice Chair