

July 2008

## **Bachelor of Technology in Applied Design Lake Washington Technical College**

### **Introduction**

Lake Washington Technical College (LWTC) is seeking Higher Education Coordinating Board approval to offer a Bachelor of Technology in Applied Design. Following legislative authorization to expand the number of schools within the community and technical college system that could offer applied baccalaureate degrees, LWTC was selected as one of three additional colleges to develop a baccalaureate degree pathway for students who have completed a technical associate degree. Graduates of the proposed program would be ready for employment in design services firms or in other kinds of firms that have a design unit.

The Applied Design program is being proposed in response to employer difficulty in attracting project managers and lead designers, and to address applied associate degree graduates' difficulty in accessing baccalaureate degree programs. Implementation of the BT program would give graduates of associate-level programs in design-related fields (e.g., engineering graphics and multimedia design/production) access to a baccalaureate degree program that would enable them to move up on their current career ladder to a supervisory role such as lead designer or project manager. The proposed program would begin fall 2009, and would enroll 20 FTE students in the first year of instruction, growing to 40 FTE students at full enrollment in the second year. It would graduate 20 students per year at full enrollment.

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

The primary mission of LWTC is: "To prepare students for today's careers and tomorrow's opportunities." The proposed program would support this mission by building on existing applied associate degree programs in design-related subjects at LWTC and regional community and technical colleges, preparing students to advance professionally into lead design and project management roles to meet the needs of local employers.

Many elements of the proposed program align well with the mission of LWTC; however, the college's new authority to grant bachelor's degrees, even when limited to a single program, represents a significant expansion of the institution's role and mission. Developing a degree program at a new level has implications for accreditation and potential impacts on students, faculty, and institutional resources. These implications and impacts are discussed later in this summary.

The program goals are consistent with those of the *Strategic Master Plan for Higher Education* because they provide opportunities for students to earn degrees at higher levels and respond to the state's economic needs by creating a pathway for students to advance their skills and progress in their careers. Thus, the proposed program would respond to local employer needs for a more highly educated workforce. Furthermore, the program would support Master Plan strategies of creating a system for lifelong learning, contributing to the innovation economy and building a coherent approach to workforce development.

## **Diversity**

LWTC has a strong track record of successful diversity efforts, with the result that it currently enrolls a student body more ethnically diverse than the surrounding community. However, men outnumber women in the associate-level programs at LWTC that are contemplated as feeder programs for the proposed program. To supplement ongoing college-level diversity efforts, department-level efforts would include:

- Diversity training of department leaders.
- Inclusion of a department leader on the College's Diversity Committee.
- Targeting recruiting sources, such as women's interest groups, likely to yield a high number of female applicants.
- Engaging the help of female graduates to assist with recruiting.
- Developing a strategy for recruiting and retaining female faculty members.
- Participating in the interdepartmental Minority Recruitment Task Force.
- A direct marketing campaign to recruit students of color.
- Direct marketing and recruiting efforts through minority organizations and agencies.
- Participation in students of color conferences and faculty of color conferences.

## **Program Need**

Although the HECB's *State and Regional Needs Assessment* does not specifically address the need for lead designers or project managers in design-related fields, program planners provided other evidence that the proposed program would respond to needs expressed by students, employers, and community stakeholders.

To assess student demand, program planners computed an estimate based on the number of graduates from design-related programs at LWTC and feeder programs at community colleges in the region: Bellevue Community College, Everett Community College, Green River Community College, Highline Community College, Pierce College, Seattle Central Community College, North Seattle Community College, and Shoreline Community College. Assuming that 20 percent of graduates from design-related programs would sign up for the proposed program, its planners estimate thirty-four applicants per year by 2011.

In addition, program planners surveyed students enrolled in LWTC's Engineering Graphics and Multimedia/Design programs during fall 2007 and found that 79 percent (173 students out of 219 respondents) expressed interest in pursuing the proposed degree and 75 percent (156 students out of 207 respondents) identified a baccalaureate degree as their end educational goal. This suggests that the 20 percent assumption in the student demand assessment above was conservative.

Program planners provided evidence of employer demand for the proposed program by citing Employment Security Department data, which identifies "multimedia artists and animators" and "graphic design" as high demand occupations, with a total of 329 annual openings in King County. Program planners took the analysis one step further by adding up the supply of graduates from existing local graphic design and multimedia-related baccalaureate programs and subtracting that sum (100) from the number of annual openings (329) to compute a demand-supply gap of 229. In other words, program planners estimated a current unmet employer demand of 229 annual openings in King County, which is large relative to the number of proposed program graduates.

Program planners provided evidence of community demand for the proposed program by obtaining letters of support from the Bellevue Chamber of Commerce, the Redmond Chamber of Commerce, the Workforce Development Council of Seattle-King County, and the mayor of Kirkland. At the state level, the legislation authorizing applied baccalaureate programs constitutes further evidence of community demand for the proposed program.

Finally, the proposed program would not duplicate existing programs in the area. Although several public and private four-year institutions offer BA, BFA, or BS degrees intended for community college graduates with direct transfer associate degrees, those programs each have focus and target audiences that differ from those of the proposed program. For example, the Art Institute of Seattle offers a BFA degree in Graphic Design, and DigiPen Institute of Technology offers a BFA degree in Production Animation; however, those programs train students to a higher technical level and lack the proposed program's emphasis on front-line management.

## **Program Description**

The proposed program aims to prepare graduates to function as lead designers or project managers of creative and technical personnel in design-related fields. Each entering student would hold an Associate of Applied Science degree or equivalent, with a cumulative grade point average of at least 2.0. Entering students would have completed a minimum of 20 credits in general education and 70 credits in technical education in a design-related discipline. The general education courses would include five credits in each in the following distribution areas: writing, quantitative reasoning, social science, and the humanities. Students would submit two letters of recommendation and an essay.

Once admitted, students would take 40 credits of general education courses: 15 humanities, 10 social science, 10 natural science, and five writing credits. In addition, students would take 40 credits of applied design technical core courses. The applied design core would cover project management, managing creativity, design technology, design process, entrepreneurship, and ethical issues. It would include a design team practicum and a senior capstone project or internship. Students also would take 10 credits of electives, which could be any upper division college-level course not otherwise fulfilling a general education or technical requirement.

Program planners have signaled their intent to pursue specialized accreditation from the National Association of Schools of Art and Design (NASAD). Program planners believe that the proposed program curriculum meets NASAD guidelines, but intend to make sure by commissioning a consultative visit from NASAD prior to the accreditation visit.

Students would normally complete the program in two years and would achieve the following learning outcomes:

- Demonstrate ability to participate and lead a team through a creative process in an organizational setting;
- Possess a broad theoretical knowledge of design and its related disciplines;
- Demonstrate mastery in some, and familiarity with many, tools, techniques, and technologies associated with design and its applications in the workplace;
- Develop a personal design aesthetic that informs and enriches a student's future contributions to the field;
- Enhance oral and written communication skills and leverage technology to enhance communications;
- Develop team-building and motivational skills to create high-performing work teams;
- Employ creative and critical thinking to enhance problem solving;
- Employ sound principles of organizational behavior; and
- Exhibit analytical thought, informed judgment, ethical behavior, and appreciation for diversity.

These student-learning outcomes would be measured using a variety of assessment tools, built on multiple assessment measures currently used by LWTC in its Multi-Media and Design and Engineering Graphics programs. The proposed program's student assessment plan would feature multiple indices of student achievement, including measures of leadership, organizational and team building skills, technical proficiency, and creative and critical thinking skills. Specific measures would include: testing, coursework, industry certification, a capstone project, performance based presentations, portfolio development, and team projects.

The proposed program would participate in LWTC's regular five-year program assessment cycle, which includes departmental self study and external and internal review. Because the proposed program is a new initiative, it would initially be reviewed annually. The annual review would feature recurring evaluation of key program components and multiple indices of program success, including: student surveys, employer surveys, advisory committee input, and student focus groups. Data would be evaluated by program faculty, the program director, appropriate deans, and the executive vice president for instructional services, and would be used to make changes necessary to ensure program success.

The proposed program would be taught by full-time, tenure-track faculty. LWTC plans to hire two new general education faculty, one in humanities and one in social sciences. Both would hold doctoral degrees, and together they would contribute a total of 1.0 FTE worth of teaching effort to the proposed program, with the remainder of their effort dedicated to teaching in the lower division. LWTC also would hire one new technical faculty person, who would hold at least a master's degree (doctoral degree preferred) and a program director, who would hold a MFA or related degree (doctoral degree preferred). In addition to administrative duties, the director would teach 15 credits per year.

The majority of the proposed program's courses would be offered in the technology center, a 61,000 square foot facility completed in 2003. LWTC currently spends over \$100,000 per year on equipment, computers, software, and supplies. During its 2006 accreditation review, LWTC earned a commendation for its facilities from Northwest Commission on Colleges and Universities (NWCCU).

To ensure that LWTC's library would be ready to meet the needs of a baccalaureate degree-granting institution by academic year 2009-10, the proposed budget includes funds for an additional librarian and for additional library resources and materials. During its 2006 accreditation review, NWCCU commended LWTC for the functionality and aesthetics of the library, and for dramatically enhancing library services to students.

Students would have access to student services staff who have significant experience in developing and delivering services at four-year colleges and universities. The student services division would draw on these experiences, and it has undergone an extensive self-evaluation and external review. The proposal indicates that students would have adequate advising, counseling, disability support services, and employment resource center support during the program.

### **Program Costs**

The proposed program would enroll 20 FTE students in the first year of instruction, growing to a full enrollment of 40 FTE students by the second year of instruction. To implement the program, its planners have budgeted 1.3 FTE for administrative staff, including a full-time director (to be hired); 1.0 FTE for library staff (to be hired) and 2.0 FTE for faculty (to be hired).

The proposed program would use existing office space, so the budget excludes that item. Program planners have budgeted \$75,000 for program-related equipment during the 2008-09 planning year and \$10,000 per year thereafter. In addition, program planners have budgeted \$75,000 for library resources and materials during the planning year, and \$50,000 per year thereafter. The budget also includes \$3,000 per year for specialized NASAD accreditation. Although the budget does not include money for NWCCU accreditation, the expected cost of NWCCU accreditation has been accounted for elsewhere in LWTC's overall budget.

The proposed program would be funded via general fund, tuition, and internal reallocation, plus \$226,000 worth of state planning year allocation to cover start-up costs.

At full enrollment of 40 student FTE, the total cost of instruction would be \$428,365, or \$10,709 per FTE. This is slightly above the range of total average annual cost per FTE for upper division undergraduate business programs at comprehensive institutions. According to the HECB's *2005-06 Education Cost Study (July 2007)*, the total average annual cost of instruction for upper division coursework in business at regional baccalaureate institutions ranges from \$7,195 to \$10,301 per FTE (including indirect costs).

## **External Review**

Four external experts reviewers submitted comments: Mr. B. J. Becker, Associate Professor of Art, DigiPen Institute of Technology; Dr. Dene Grigar, Director and Associate Professor, Digital Technology and Culture Program, Washington State University Vancouver; Dr. Matthew Robb, Assistant Professor and Associate Chair, Program in Design + Management, Parsons The New School for Design; and Ms. Kathy Gill, Senior Lecturer, Master in Communication-Digital Media, University of Washington.

Each review was quite detailed, and each reviewer noted several strengths and raised various issues or made suggestions. Noted strengths include:

- Responsiveness to need (2 reviewers).
- Responsiveness to emerging national industry trends concerning the integration of design criteria and business practice.
- Well chosen target audience (3 reviewers).
- Clear articulation and coordination with other institutions (2 reviewers).
- Strong technical core curriculum.
- Inclusion of capstone in curriculum.
- Well developed outcomes.
- Robust range of student assessments, including project-based assessment.
- Clear description of library upgrade and student services.
- Adequate resources for faculty and library staff.
- Well thought out professional development plan for faculty.
- External advisory committee.

The most salient issues and suggestions were:

- Addition of an ethics course to the curriculum (2 reviewers).
- Amount of emphasis on communication skills.
- Amount of emphasis on reasoning skills.
- Degree of focus on higher level skills (i.e. analysis, synthesis, evaluation).
- Articulation of a mission statement for the program.

With regard to ethics, program planners responded that LWTC would increase ethics content embedded in several courses and would consider adding an ethics course to the curriculum. With regard to communication skills, program planners responded that taking into account both upper and lower division requirements, LWTC students would complete 10 credits of writing

and five credits of oral communication. With regard to reasoning skills, program planners responded that critical thinking and analytical reasoning are required global outcomes at LWTC; however, course-level outcomes, particularly those that link in an additive way to other course-level outcomes, would be determined during curriculum development after a program director is hired. With regard to higher-level skills and mission statement, program planners responded that a mission statement would be developed by faculty and the yet-to-be-hired director, and the curriculum would be further developed to clearly show the relationships between program mission, goals and objectives, and higher-level skills.

### **Staff Analysis**

The proposed program would support LWTC's mission to prepare students for today's careers and tomorrow's opportunities by building on existing applied associate degree programs in design-related subjects to prepare students to advance professionally into lead design and project management roles to meet the needs of local employers.

In addition, the proposed program would advance the goals of the *Strategic Master Plan* by providing opportunities for students to earn higher-level degrees that respond to the state's economic needs. The proposed program would provide access to baccalaureate-level instruction for students who would otherwise be unlikely to obtain that level of training, and program graduates would respond to local employer needs for a more highly educated workforce. Furthermore, the program would support Master Plan strategies of creating a system for lifelong learning, contributing to the innovation economy, and building a coherent approach to workforce development.

LWTC has a strong diversity track record, and the proposal identifies multiple strategies to attract and retain a diverse student body, including strategies targeted to increase the proportion of women, who are traditionally underrepresented in feeder programs for the proposed program.

Program planners supplied sufficient evidence that the proposed program would respond to student, employer, and community needs. Students would benefit from the proposed program because it would prepare them for career advancement in a way that is seamlessly connected with the technical training they received at the associate level. Employers would benefit from having proven production workers with advanced skills needed to assume lead design and project management roles. Thus, the program would respond to demand among employers for more highly trained workers by providing a pathway to allow for career progression of incumbent workers. The program would not duplicate existing programs.

The proposed program's curriculum would include a balanced mix of general education and technical courses designed to cover project management, managing creativity, design technology, design process, entrepreneurship, and ethical issues. Program planners' dedication to quality is evident from their plans to pursue specialized accreditation from the National Association of Schools of Art and Design (NASAD).

The proposed program would include a student assessment approach with well-defined student learning outcomes that would be assessed with multiple approaches at various points in time. Similarly, program assessment would employ multiple approaches at various points in time.

Adding bachelor's degree granting authority to LWTC's mission and role has implications for accreditation and potential impacts on students, faculty, and institutional resources. LWTC has been thoughtful about these issues and has dedicated resources to support additional library resources and program-related equipment. These efforts should position the college to support students, faculty, and staff in the upper division coursework. Furthermore, program costs appear to be reasonable, given the facility and infrastructure needs required to support a new four-year degree program at a community college.

The proposal has been evaluated by four external reviewers who have noted program strengths, raised various issues and made various suggestions, some of which program planners have committed to follow, and some of which program planners have committed to consider as they more fully develop the program curriculum during the planning year. HECB staff recommend that, as the program is developed, program planners keep in mind the issues raised and suggestions made by reviewers, especially those made with regard to ethics content, emphasis of communication and reasoning skills, and articulation of a mission statement. HECB staff commend program planners for submitting four external reviews when only two were required and for their commitment to further develop the curriculum to clearly show the relationships between program mission, goals and objectives and higher level skills.

Consistent with the goals and limitations of applied baccalaureate degree programs offered by the community and technical colleges, the program would provide a career oriented bachelor's degree pathway for students who have completed an applied associate degree and wish to progress in their field.

### **Staff Recommendation**

Based on careful review of the program proposal and supplemental information, HECB staff recommend approval of Lake Washington Technical College's Bachelor of Technology in Applied Design. The HECB Education Committee discussed the proposal during its June 23, 2008 meeting and recommended approval by the full Board.

**RESOLUTION NO. 08-24**

WHEREAS, Lake Washington Technical College proposes to offer a Bachelor of Technology in Applied Design; and

WHEREAS, The program is consistent with legislative authorization to expand the number of community and technical colleges offering applied baccalaureate degrees; and

WHEREAS, The program would support the institution's mission by building on existing applied associate degree programs to prepare students to advance professionally into lead design and project management roles to meet the needs of local employers; and

WHEREAS, The institution has committed to provide the services and support necessary to expand its institutional role and mission by offering a baccalaureate degree program; and

WHEREAS, The program would support the *Strategic Master Plan for Higher Education* by providing opportunities for students to earn higher-level degrees that respond to the state's economic needs; and

WHEREAS, The proposal identifies multiple strategies to attract and retain a diverse student body; and

WHEREAS, Students would benefit from the program because it would prepare them for career advancement in a way that is closely connected to their associate-level technical training; and

WHEREAS, The program would not unnecessarily duplicate existing programs in Washington and would be offered at a reasonable cost;

THEREFORE, BE IT RESOLVED, That the Higher Education Coordinating Board approves the Bachelor of Technology in Applied Design at Lake Washington Technical College, effective July 21, 2008.

Adopted:

July 21, 2008

Attest:

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Bill Grinstein, Chair

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Roberta Greene, Secretary