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Draft Proposal to the UW Board of Regents

to Establish a

Science and Technology Program

at the

University of Washington Bothell

July 7, 2008

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Establishment of a Science and Technology Program at UW Bothell

PROPOSED ACTION

The administration of the University of Washington Bothell (UWB) is seeking approval from the Board of Regents to establish a Science and Technology Program. This program will provide the organizational structure to support the growth of Science, Technology, Engineering and Mathematics (STEM) and Health fields at UWB.

PURPOSE AND RATIONALE

Meeting the challenges of the 21st century will depend on world-class scientific and technological innovation. Historically, such advances have been the engine of progress and economic prosperity for the US and its citizens, but a 2005 National Academies report expresses deep concern "that the scientific and technological building blocks critical to our economic leadership are eroding at a time when many other nations are gathering strength." (Page 3, Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future.). The report calls for concerted action "to enhance the science and technology enterprise so that the United States can successfully compete, prosper, and be secure in the (new) global community." (Page 2, Gathering Storm.)

The National Academies report recommends increasing "the number and proportion of US citizens who earn bachelor's degrees in the physical sciences, the life sciences, engineering and mathematics," an essential goal that is also explicit in Washington State's 2008 Strategic Master Plan for Higher Education.

An internationally acclaimed research university, the University of Washington (UW) has long provided critical leadership in these fields through education and research initiatives, STEM degree production and innovative models for addressing critical challenges. Recognizing its need to complement these endeavors with greater intensity, UWB has recently completed a plan that identifies the institution's top priorities for growth until 2020. Our top priority is to "serve the citizens of the state of Washington by providing access to a premier university education," with particular emphasis on developing new degree programs that respond to economic development needs of the state and region. Specifically, the areas of science, technology, engineering and math were identified as top priorities for immediate growth.

CONCEPT OVERVIEW: PROPOSED SCIENCE AND TECHNOLOGY PROGRAM

To foster development and excellence in growing these fields, UWB proposes to create a new Science and Technology Program. The goal of the program is to provide the disciplinary depth, scale and autonomy needed to develop STEM fields and allow for the growth that will best serve our students and region in the future.

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The Science and Technology Program will build a curriculum that prepares students to enter the science, technology and biomedical/biotechnology workforce; qualify for related graduate programs; qualify for health-related professional schools such as medicine, nursing, pharmacy, dentistry and public health; or enter teacher education programs.

The new unit is further charged with creating a program that will serve as a model for innovative, effective teaching and scholarship that reflects UWB's commitment to diversity and providing educational opportunities for underserved students. The UWB mission statement calls for "innovative and creative curricula" and the 21st Century Campus Initiative: UWB Priorities Plan 2008-2020 identifies an "enhance(d) campus commitment to diversity and inclusiveness" as a priority. This reflects growing awareness that the US must make "a national commitment to develop more of the talent of all our citizens, especially the under-represented majority — the women, minorities, and persons with disabilities who comprise a disproportionately small part of the nation's science, engineering, and technology workforce," writes Rensselaer Polytechnic Institute President Shirley Ann Jackson in The Quiet Crisis: America's Economic and National Security at Risk. (www.rpi.edu/homepage/quietcrisis/)

This issue is addressed in the 2008 Strategic Master Plan for Higher Education, which notes that "too few women and people of color earn degrees in science, technology, engineering and mathematics (STEM) fields" and calls for additional efforts to encourage and serve underrepresented students.

These two themes – innovation and diversity – are deeply embedded in both program and curricular designs for the model Science & Technology Program we seek to create. We will utilize innovative and effective pedagogical methods and technologies, as well as support services, to create an environment of inclusiveness and success for all students. Success in higher education begins with pre-collegiate preparation, thus our focus will also include enhancing outreach to P-12 students and teachers. One such program, Imagine, begins in Summer 2008 for students in grades 6-8 and 9-12. Using experiential learning techniques, this Education Program series "is designed to capture students' imaginations as they learn about environmental stewardship through an integrated curriculum in math, science, and language arts."

The Science and Technology Program and curriculum will:

- Articulate clear learning goals to prepare students for the next steps in their careers and education.
- Identify national models for innovative and inclusive science and math education. Reinforce UW Bothell's signature of hands-on and problem-solving curricula, as well as student-based research. Incorporate these for students at all levels.
- Provide freshmen and sophomores with multiple success points and fundamental skills to succeed in S & T programs. Build a curriculum that recognizes different learning styles and creates an environment of success for talented yet underprepared students.

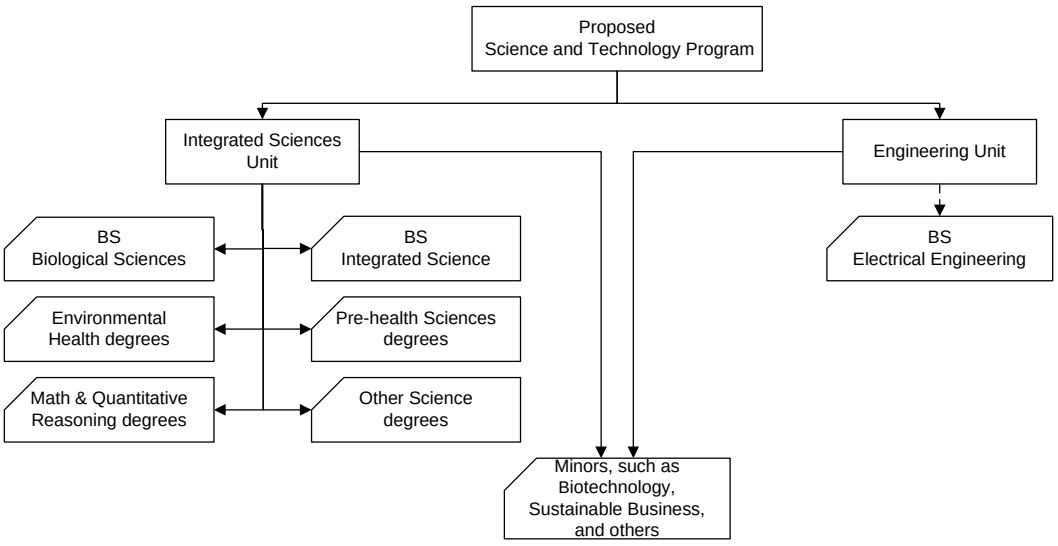
- Develop and utilize strategies to recruit underrepresented faculty, staff and students, based on effective national models.
- Create degrees that are recognizable and address the needs of high school students, parents, employers and graduate/professional schools.
- Provide degrees that will prepare students to become math and science teachers and support P-12 outreach projects.
- Clearly articulate the role of S & T in the interdisciplinary development of students not majoring in S & T fields. Take advantage of offerings in other UWB programs, such as the interdisciplinary courses offered in IAS, and prevent duplication of courses across the university in STEM areas.
- Provide strong pre-collegiate and collegiate academic support; consider creating a science and technology success center.

These commitments reflect the distinctive model for growth outlined in the 21st Century Campus Initiative and support the priorities outlined in the plan: growth, resourcefulness, diversity, student-centered, community, innovation, and sustainability.

PROPOSED STRUCTURE

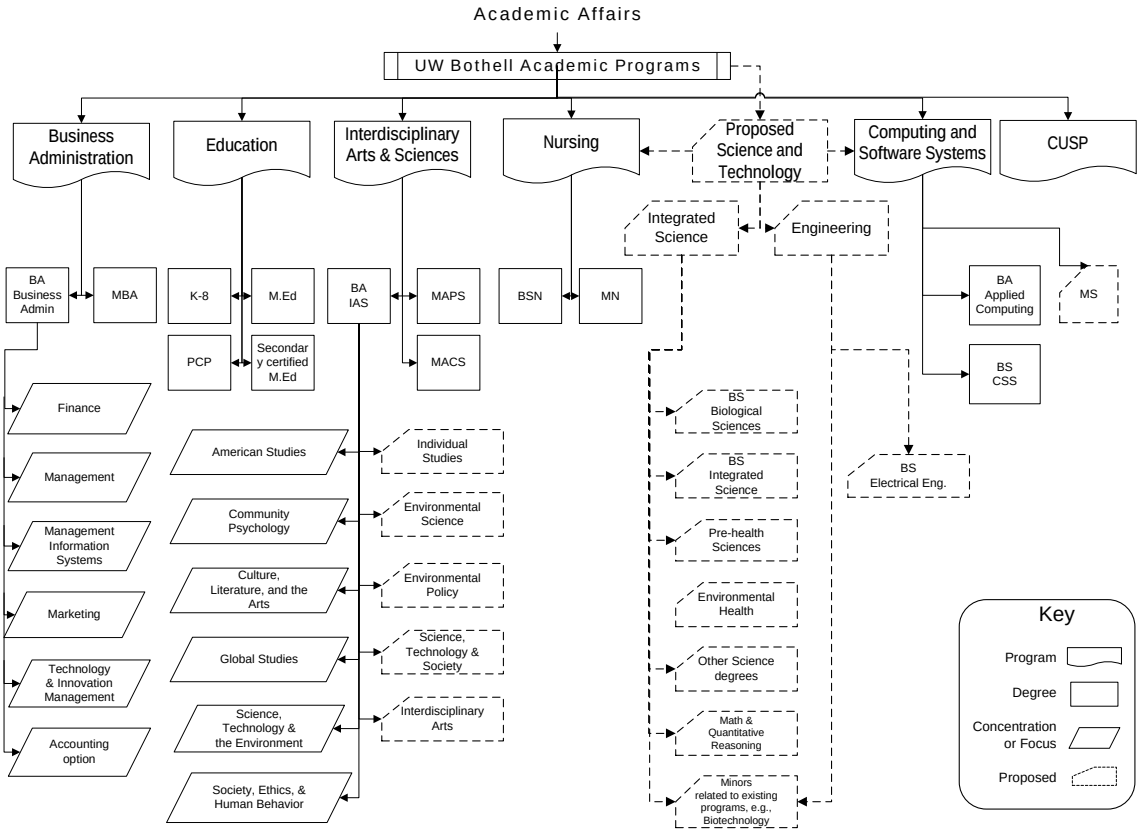
The proposed program will initially house two new academic units: Integrated Science and Engineering. Current faculty with expertise and interest may request to move all or part of their appointments into Science and Technology, and additional faculty will be recruited to ensure that Science & Technology succeeds. Existing programs such as Computing and Software Systems and Nursing will be consulted regarding their relationship to the new program as well. The Science and Technology Program structure will also allow for additional academic units in the future, as STEM-field development progresses.

The chart below shows the organization of the Science and Technology program, with proposed degrees to be offered by the initial academic units:



Establishment of a Science and Technology Program at UWB (continued p.4)

The overall academic organization chart, including the proposed unit and current and proposed degrees, is below:



DEMAND AND IMPACT

Student Demand:

Student interest in science and technology fields is strong nationwide. Five of the top ten highest-enrolled fields of study in the US are in STEM, health or education fields, according the US Department of Education.

Highest-Enrolled Fields of Study in the US

	All Students	% of Total
Total by field of study (in thousands)	21,880	
Undeclared or not in a degree program	4,328	19.8%
Business, Management & Marketing	3,431	15.7%
Health Professions & Related Sciences	2,672	12.2%
Education	1,951	8.9%
Computer & Information Sciences	998	4.6%
Liberal Arts, Sciences & Humanities	900	4.1%
Engineering	683	3.1%
Visual & Performing Arts	664	3.0%
Psychology	617	2.8%
Biological & Biomedical Sciences	500	2.3%

Source: US Department of Education, National Center for Education Statistics, 2003-04 National Postsecondary Student Aid Study.

In Washington State, nearly 19% of students taking the SAT in 2007 indicated their desire to major in a health professions or clinical field. Taken together, an additional 20% sought degrees in computing, engineering and science fields.

Top Intended Majors of Washington State SAT Takers (3/2007)

INTENDED MAJORS (clustered)	#	%
Health Professions & Related Clinical	4403	19%
Business Management, Marketing & Related	3621	15%
Computer & Info Sciences, Engineering, Engineering Technologies/Technicians	2946	12%
Visual and Performing Arts	2245	9%
Sciences: Biological & Biomedical, Physical, Natural Resources & Conservation	1853	8%
Education	1753	7%
History, Legal Professions & Studies, Public Administration & Social Services Professions, Social Sciences	1418	6%
Communication, Journalism & Related	871	4%
Psychology	832	4%
Architecture and Related Services	587	2%

Data from College-Bound Seniors 2007, State Profile Report Washington at www.collegeboard.com)

UWB recently completed a survey of students from regional community colleges. Among all students, the most desired fields of study were, in order, Business, Health/Nursing, Social Sciences, Computer Sciences and Sciences. Students were specifically asked about their level of interest in programs of study not currently offered at UWB. Their responses, in order, were: Information Technology, Law/Public Policy, Science, and Engineering.

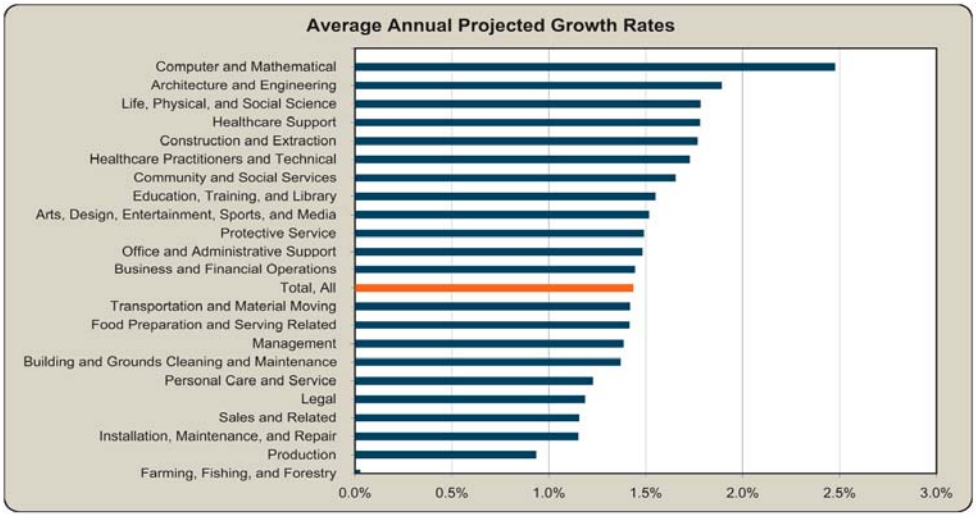
Workforce Demand:

Workforce demand in STEM fields is growing, according to the Bureau of Labor Statistics (BLS). “Professional and related occupations are projected to be one of the two fastest growing major occupational groups, and are expected to add more jobs than any other major occupational group, about 5 million, by 2016.” (Occupational Outlook Handbook, Tomorrow’s Jobs, at www.bls.gov) Of these, nearly three quarters of new jobs, or 3.5 million, will be in “computer and mathematical occupations, healthcare practitioners and technical occupations, and education, training, and library occupations.” (Tomorrow’s Jobs)

According to Washington State Economics and Labor Market’s 2006 report, the annual growth rate in jobs is especially high in all areas of STEM.

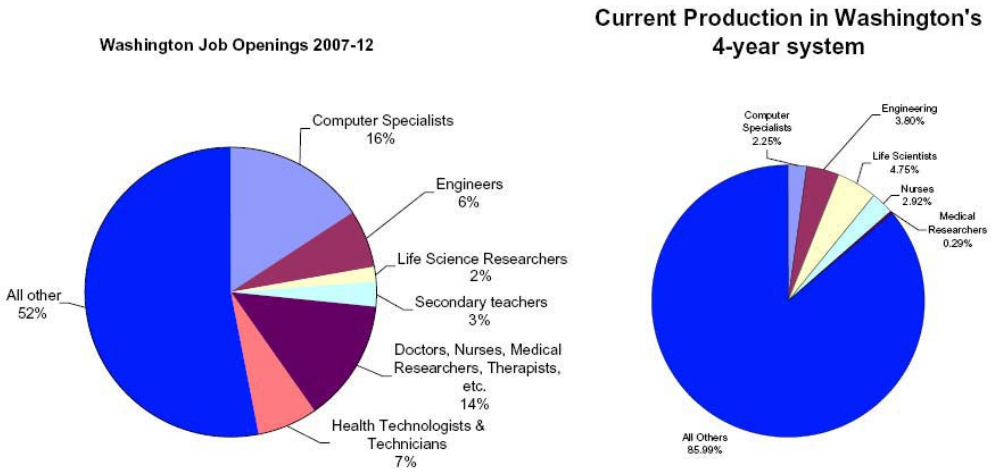
Establishment of a Science and Technology Program at UWB (continued p.6)

Projected annual employment growth rates for Washington State.



Washington Governor Christine Gregoire has designated "Education to Compete" as a top priority, noting that "Washington's fastest growing industries, such as aerospace, high-tech and bio-technology…are struggling to find enough qualified workers." "Washington businesses," she believes, "should be able to find the world's best-educated workers among our state's own citizens, rather than importing workers from other states and nations." (www.governor.wa.gov/priorities/education/)

Washington ranks first in the nation in the employment of engineers and sixth for computer specialists. At the same time, Washington ranks 38th in the nation in the number of bachelor's degrees granted in science and engineering (US Department of Education, National Center for Educational Statistics, IPEDS). The unmet need in science and technology is estimated by the Prosperity Partnership to be 4,000 to 5,000 graduates per year.



Comparison of Job Openings versus Current Production (Prosperity Partnership)

Establishment of a Science and Technology Program at UWB (continued p.7)

Regional Workforce Demand and Economic Impact:

Regional workforce projections show strong growth in engineering, computing, and science fields, with high wages associated with these occupations. The tables below from Workforce Explorer Washington show rankings of high-growth fields in King and Snohomish Counties. Engineering fields, targeted for development at UWB, show strong annual growth in both counties.

Workforce Projections - Occupations requiring long preparation 2004-2014
King County (source: Workforce Explorer Occupational Outlook)

Occupational Titles	Estimated Employment 2004	Average Annual Growth Rate	Average Annual Total Growth	Estimated Average Wage June 2006
Computer Software Engineers, Applications	20,437	3.1%	977	$83,227
Computer Programmers	9,038	3.4%	606	$92,738
Computer Software Engineers, Systems Software	11,124	3.3%	560	$88,766
Market Research Analysts	6,188	2.7%	374	$81,258
Multimedia Artists and Animators	3,089	3.1%	190	$55,582
Civil Engineers	6,621	2.1%	268	$71,955
Technical Writers	1,999	3.1%	139	$72,349
Management Analysts	7,453	2.0%	279	$74,860
Aerospace Engineers	4,687	2.1%	247	$81,459
Architects, Except Landscape and Naval	2,370	2.9%	111	$69,562
Employment, Recruitment and Placement Specialists	2,177	2.9%	112	$56,665
Network Systems and Data Communications Analysts	4,362	2.2%	162	$73,314
Medical Scientists, Except Epidemiologists	3,507	2.2%	154	$66,644
Computer and Information Systems Managers	3,909	2.1%	171	$114,309
Network and Computer Systems Administrators	6,389	1.9%	213	$69,104
Occupations are ranked based on the average of three criteria: average annual growth rate, number of job openings due to growth, and total number of job openings due to growth and replacement				

Snohomish County

Occupational Titles	Estimated Employment 2004	Average Annual Growth Rate	Average Annual Total Growth	Estimated Average Wage June 2006
Aerospace Engineers	4,160	2.5%	243	$81,459
Rehabilitation Counselors	959	2.8%	56	$31,173
Management Analysts	2,041	2.2%	82	$74,860
Loan Officers	767	2.5%	37	$61,310
Engineers, All Other	638	2.6%	34	$78,204
Engineering Managers	802	2.4%	41	$121,747
Medical Scientists, Except Epidemiologists	299	3.7%	20	$66,644
Civil Engineers	753	2.3%	33	$71,955
Construction Managers	1,052	2.1%	46	$109,840
Natural Sciences Managers	211	3.8%	15	$112,385
Business Operations Specialists, All Other	1,647	1.8%	64	$65,242
Industrial Engineers	888	1.9%	44	$69,163
General and Operations Managers	1,387	1.8%	56	$130,753
Accountants and Auditors	1,664	1.7%	66	$61,029
Speech Language Pathologists	304	2.6%	18	$55,011

Increased degree opportunities in STEM fields offer economic benefits for both graduates and their communities. According the Bureau of Labor Statistics, 16 of

Establishment of a Science and Technology Program at UWB (continued p.8)

25 occupations with the highest median annual earnings are in health care, engineering, computing, sciences and mathematics fields.

Occupations with the highest median earnings, May 2006

Occupation	Median earnings
Chief executives	greater than $145,600
Physicians and Surgeons	greater than $145,600
Airline pilots, copilots, and flight engineers	141,090
Dentists	136,960
Air traffic controllers	117,240
Podiatrists	108,220
Engineering managers	105,430
Lawyers	102,470
Judges, magistrate judges, and magistrates	101,690
Computer and information systems managers	101,580
Natural sciences managers	100,080
Marketing managers	98,720
Petroleum engineers	98,380
Astronomers	95,740
Pharmacists	94,520
Physicists	94,240
Computer and information scientists, research	93,950
Sales managers	91,560
Optometrists	91,040
Financial managers	90,970
Nuclear engineers	90,220
Political scientists	90,140
Computer hardware engineers	88,470
Aerospace engineers	87,610
Mathematicians	86,930

25 occupations with the highest median annual earnings in May 2006. (Source: Bureau of Labor Statistics Occupational Employment and Wage Estimates.)

According to a 2006 UWB report, workforce demand for college graduates in STEM fields was found to be high throughout the region, with projections from the Prosperity Partnership and the HECB's studies of needs in Snohomish, Island and Skagit Counties (SIS) indicating that "the unmet demand for communities served by UWB is in the range of 1,000-3,000 additional annual FTEs." (UWB Applied Science and Technology Planning (ASTP) Group Report).

According to census data, the region is home to 20,276 private non-farm businesses, over 75 percent of which are located in Snohomish County. "As such, much of the region's employer demand is driven by the key industries in

Snohomish; namely aerospace manufacturing, tourism, health care, biotechnology/bio-medical device, and information technology sectors." (p. 110, State and Regional Needs Assessment)

> With its location in the heart of Bothell's Technology Corridor, strong support for bioscience degree programs can be expected, the ASTP group concluded. "The Technology Corridor that arcs around the UWB campus forms one of the key hubs for the biotechnology and biomedical sector in the region." (ASTP Report) Snohomish County is home to "35 out of the state's 190 biotechnology and medical device firms…employing approximately 5,000 workers in 2002. Ninety-three percent of the industry's employment in Snohomish County is located in Bothell." (Washington Biotechnology and Biomedical Association, 2002, from ASTP Report) "Since 1990, employment in the industry doubled and projections reflect a continuation based on the clustering already occurring in the Bothell area." (Snohomish County Economic Development Council, 2003) According to the Everett Herald, "Medical device companies in Bothell generated $1.8 billion in revenue in 2007, numbers Snohomish County Economic development officials would like to see more of." (Everett Herald, May 26, 2008)

UWB has developed partnerships in the surrounding community, including research and policy collaborations. Through its Biotechnology and Biomedical Technology Institute (BBTI), UWB collaborated with the city of Bothell to earn designation as a Washington Innovation Partnership Zone, allowing the area increased access to state resources. Local partners have expressed strong interest in UWB's plans to develop degrees in Science and Technology fields, and current planning for a minor in Biotechnology is in response to such demand.

Meeting Demand to Benefit Students and Region:

The creation of a model Science and Technology Program offers significant benefits to the counties surrounding UWB by providing opportunity for local students to study in STEM fields, in turn fueling greater economic prosperity and innovation in the region.

Initial degrees to be developed include:

- BS Biological Sciences, 2008-09
- BS Electrical Engineering, 2008-09
- BS Integrated Sciences, 2008-09
    - Leading to math/science teacher certification
- BS Environmental Health, 2010
- Minor Biomedical Technology
- Cross-programmatic minors
    - Sustainable Business
    - Other minors

Establishment of a Science and Technology Program at UWB (continued p.10)

In addition to these degrees within the Science and Technology Program, collaborations, projects and interdisciplinary connections will continue to foster STEM-related depth, perspective and growth across campus. Ongoing projects include: Space Huskies, CSS internship programs, participation in global and regional air pollution research, Education outreach programs for pre-collegiate students, involvement in the UW Restoration Ecology Network, and CUSP participation in Summer Institutes on "Sustainability and the Curriculum." Additional programs, including student opportunities to participate in ongoing chemistry research into the international coffee crisis, will provide the real-world experiences that are hallmarks of the UWB curriculum.

As UWB achieves the growth envisioned in the 21st Century Campus Initiative, additional degrees will be developed at a steady pace, to create the comprehensive array of the programs needed to serve our constituents. Between 2008 and 2020, available degrees and professional certifications are projected to grow from 11 to 60, not including minors and options within degrees. The anticipated academic profile for 2020 includes new degrees in the following areas:

- STEM and Health, including Allied Health, Nursing, Biochemistry, Mathematics, Physics and additional Engineering fields
- Social Sciences, including Communications, Sociology and Economics
- Interdisciplinary Arts and Sciences, including Culture, Literature and the Arts, Environmental Studies and Performance Studies
- Other fields, including Education Leadership, Foreign Language and Culture options, and Game Design.

PROCESS

Focused planning for STEM growth began in 2006 with an analysis of workforce and enrollment demand undertaken by the UWB Applied Science and Technology Planning (ASTP) Group. The ASTP report provided the in-depth analysis that served as a basis for further development.

In 2008, in conjunction with the campus-wide priorities planning process, a STEM Task Force was appointed to recommend ways to accelerate growth in these fields. In addition to making curricular and timeline recommendations, the task force was charged with considering the best institutional structure to insure effective development. Through its deliberations and analysis of UWB's current organizational structure and capabilities, the group identified three criteria needed to successfully meet student and regional needs for STEM growth: a degree of autonomy regarding curricula, faculty recruitment, and tenure and promotion; a place at the table in administrative and budgetary decision-making; and an umbrella for multiple department-like entities."

The task force analyzed several organizational options in depth, including the creation of a new unit such as the proposed Science and Technology Program. These were outlined in the report of the task force, which received wide review during a 30-day open comment period. Comments from this review,

recommendations through program, faculty and campus-wide meetings, along with analysis of available resources, were all taken into account in developing the current proposal.

RESOURCES AND FUNDING

Though funding for science degrees is not inexpensive, UWB is committed to providing the resources necessary to ensure the success of STEM studies.

We intend to launch the Science and Technology Program through a combination of strategies, including reallocation of current resources. We will also develop additional resources, through state funding, increased grant opportunities, and community partnerships. A concerted effort on each of these fronts will allow us to fund the required new faculty and provide essential student support services to create the model program we envision.

Our top priority for new resources in 2008-09 and 2009-10 is to support the new unit, including the hiring of new permanent faculty.

Many of UWB's current faculty have expertise in a range of science, technology, health and mathematics fields. We will build the new program from the strength of this talent. Interested faculty will have opportunities to move their appointments in whole or part to the new unit, and new faculty will be recruited to provide the additional depth and expertise for new degree programs.

To ensure access to needed facilities in the short-term, we are pursuing arrangements with Cascadia Community College to share laboratory space on an interim basis. At the same time, we will enhance our own facilities by reassigning space and through long-term planning. Pre-design conversations regarding the future UWB 3 are currently underway, with a focus on accommodating growth in the sciences.

Resourcefulness, a key priority of the 21st Century Campus Initiative, underlies all of our planning for STEM field advancement. With our priorities clearly outlined, we will carefully align our human and financial resources toward achieving our goal of growth with distinction.

ATTACHMENTS

21st Century Campus Initiative: UW Bothell Priorities Plan 2008-2020
21st Century Campus Initiative Priority/Action Sheet

Establishment of a Science and Technology Program at UWB (continued p.12)

REFERENCES:

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- Washington State Economics and Labor Market Report 2006

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Washington State Office of the Governor
www.governor.wa.gov/priorities/education/

UNIVERSITY OF WASHINGTON BOTHELL

The 21st Century Campus Initiative

University of Washington Bothell Priorities Plan 2008-2020

I AM BOTHELL

General Faculty Organization • Office of Academic Affairs • General Staff Organization

Approved by the General Faculty Organization Executive Council/General Staff Organization Guidance Group on 5/27/08 and by the Chancellor on 5/30/08.

Purpose and Goals for the UWB Priorities Plan

The University of Washington Bothell (UWB) is one of three campuses of the University of Washington (UW), an internationally renowned research university. As a publicly funded university, UWB exists to serve the educational needs of the citizens of the state of Washington. In its 2008 Strategic Master Plan, the state Higher Education Coordinating Board (HECB) outlined two goals for providing what the people of our state want and need from their public higher education system:

> ***HECB Goal 1:*** *We will create a high-quality higher education system that provides expanded opportunity for more Washingtonians to complete postsecondary degrees, certificates and apprenticeships.*
>
> ***HECB Goal 2:*** *We will create a higher education system that drives greater economic prosperity, innovation and opportunity.*

The 21st Century Campus Initiative: UWB Priorities Plan for 2008-2020 addresses our state's need to expand access to higher education by outlining a clear and compelling vision for how we intend to grow in both size and excellence.

Developed as a partnership between faculty, staff and administration, with input from students, alumni and community advisors, the UWB Priorities Plan identifies the priorities and actions to guide us in addressing the following overall institutional goals:

- *Build a distinctive 21st Century public institution reflecting our mission and campus priorities.*
- *Grow to a combined enrollment of 5,000 undergraduate and graduate students by 2020 to serve the needs of our region.*
- *Achieve distinctiveness and growth in a fiscally responsible manner.*

The purpose of the 21st Century Campus Initiative is to lead us toward success in meeting these goals, by focusing our energies and resources in an intentional manner as we pursue a common vision.

UWB Mission Statement

The UW Bothell holds the student-faculty relationship to be paramount. We provide access to excellence in higher education through innovative and creative curricula, interdisciplinary teaching and research, and a dynamic community of multicultural learning.

- Serve college-age and established adult students, as well as the community at large, by providing access to a premier institution of higher education.
- Emphasize and develop critical thinking, writing, and information literacy, in order to graduate students with life-long learning skills.
- Actively recruit and support outstanding faculty scholars with a passion for communication.
- Build an inclusive and supportive community of learning and incorporate multicultural content and diverse perspectives on ethnic and racial groups, gender, sexual orientation, social class, and special needs.
- Encourage and support collaborative, interdisciplinary, and cross-program initiatives.
- Provide quality curricula by making use of the best of educational technology in support of teaching and learning.
- Attract and support an internationally diverse student body and a nationally recognized faculty and staff.
- Create and support excellence in student services, academic services such as library, writing center, computing services, and physical facilities.
- Foster productive relationships with the employment community and promote a strong public service commitment.

From Mission to Priorities Planning

The successful development of UWB rests on the rich framework established by the founding faculty in 1990. Since that date the university has grown from 26 students to over 1800, guided throughout by the vision and accomplishments of the entire campus, its programs and units. Planning milestones include:

- UWB Mission adopted by the General Faculty Organization (GFO) in 1996
- UWB 5 for 5 Initiative begun in 2004
- The Future of Washington's Branch Campuses: HECB report on branch campus development plans – HB 2707 in 2005
- GFO Academic Planning in 2006-2007
- Creating UW's Future: Meeting the Grand Challenges, a UW strategic plan for all three campuses in 2006-2007 (Appendix A)

Our current process began in September 2007 with a retreat to generate ideas for shaping our future growth. A Strategic Planning Blackboard site was then launched, allowing the entire UWB community to review, reflect and comment on retreat presentations, outcomes, relevant data and readings. Early in 2008, a Faculty/Staff Academic Priorities Workshop series was begun to move the process from ideas toward a concrete plan. The workshops focused on identifying broad priorities to serve the growing needs of our students and region with excellence and distinction. The 21st Century Campus Initiative builds on our mission and reflects the visions and priorities that emerged throughout our planning process.

Our Priorities (not ranked)

Growth: ***Serve the citizens of the State of Washington by providing increased access to a premier university education.***

- Grow to a total undergraduate and graduate enrollment of 5,000 full-time equivalent (FTE) students in 12 years and 6,000 in 15 to 20 years.
- Over the next five years, increase enrollment by 1,000-1,200 FTE students.
- Develop new majors and graduate programs in high-demand fields and foundational studies to serve student, employer and regional needs. Broad fields identified for new or continued development include:
    - Science, Technology, Engineering and Math (STEM); and Health
    - Social Sciences
    - Visual, Literary and Performing Arts
    - Foreign Language and Culture

- Support ongoing enrollment growth in existing program areas: Business, Computing and Software Systems, Education, Interdisciplinary Arts and Sciences, Nursing, and the Center for University Studies and Programs.
- Understand and respond to projected demographic changes and their effects on our assumptions about demand and needs.
- Use technology and innovative delivery modes to overcome barriers to enrollment and extend UWB's reach.

Resourcefulness: ***Build a culture of institutional sustainability through sound, creative use of financial and human resources.***

- Recognize and operate within the fiscal boundaries of a public university.
    - Demonstrate the value of UWB to the region.
    - Enhance the flexible use of resources.
- Plan to build the facilities needed to accommodate future academic programs and services, with flexibility for large classes and small seminars.
- Sustain our human resources by addressing professional development and institutional support needs among faculty and staff.
- Expand opportunities for additional funding sources, including development, funded research and self-sustaining programs.

Diversity: ***Enhance campus commitment to diversity and inclusiveness.***

- Enhance recruitment, support and retention for underrepresented faculty, staff and student groups.
- Incorporate multicultural content and diverse perspectives in learning and scholarship.
- Target services to support inclusion and success for a student population of increasing diversity in ethnicity, race, gender, age, sexual orientation, social class and disability.
    - Create a multicultural program to support students of diverse backgrounds, foster understanding and appreciation of differences, and enrich campus life.

- Create bridge and other support programs to enhance recruitment and retention.
- Build P–12 and community college pipeline partnerships, forging relationships and aiding student preparation for university studies.
- Maintain commitment and support for students of all ages and students with disabilities.

Student-centered: Enhance student services to support academic success and enrich student life.

- Provide enhanced advising and career services for undergraduate and graduate students.
- Provide comprehensive academic support services, including Library, Writing Center, Quantitative Skills Center, Media Center and additional programs.
- Address student-life issues, including:
  - Housing, social and recreational opportunities
  - Health, mental health and childcare services

Community: Deepen and broaden community engagement and research.

- Build the UWB community by fostering lifelong learning and alumni outreach.
- Broaden our impact to encompass diverse local, regional, statewide and global communities.
  - Enhance research activities focused on local through global issues.
- Promote undergraduate and graduate involvement in service- and community-based learning and research.
- Develop productive relationships with the employment community.
- Build on UWB's reputation by demonstrating our distinctiveness and telling our story.

Innovation: Support signature strengths in interdisciplinary scholarship and innovative teaching.

- Encourage and support collaborative, interdisciplinary and cross-program initiatives.

- Engage faculty and students in inquiry- and problem-based approaches to research and learning.
- Develop reciprocal regional partnerships that enhance teaching and research.
- Promote research on the scholarship of teaching and explore innovative teaching methodologies that foster student/faculty interactions.
- Employ innovative technology and academic support services to enhance educational experiences.

Sustainability: ***Develop environmental and human sustainability as a signature initiative.***

- Gain national distinction for leadership, scholarship and teaching in sustainability issues.
- Promote community partnerships in sustainability activities, including collaboration with Cascadia Community College and UW Seattle.
- Build on interdisciplinary and cross-programmatic studies and research in environmental and human sustainability.
- Value the development of sustainable and healthy human communities.
- Promote a green campus, with the wetlands as a centerpiece, to embody sustainability and serve as a research and teaching laboratory.
- Develop into a low-impact campus through careful materials and energy stewardship.

Moving Forward: a flexible approach for the first year

The 21st Century Campus Initiative outlines seven priorities to guide UWB over the next 12 years. They are interconnected and have grown out of our existing culture, strengths and endeavors. Thus, many activities supporting our priorities are on-going and must be nurtured and developed with the additional focus called for in our plan. This campus-wide plan is not intended to inhibit program-level planning; rather, it should serve as a guide. In creating their plans, programs and units are asked to take these priorities into account, so our efforts remain focused on achieving the vision we have developed together.

While all of our priorities are of great importance, we do not have unlimited financial and human resources to fully address them at once. In the short term, we will appoint task force groups or work with existing groups to develop recommendations in targeted areas while we continue to develop a timeline for implementing the remaining items. In Spring 2009, we will hold a follow-up workshop with faculty and staff to assess our progress, discuss potential modifications and update our steps for moving forward.

Several work groups will be asked to serve during Spring Quarter and others will be formed in the coming academic year and beyond. The proposed timing for development of new majors reflects consideration of planning activity outcomes, state and student demand, resource issues, and our ability to offer initial majors quickly to meet enrollment targets.

Each task force group, though focused on a specific area, will also address the ways in which other priorities are interrelated. Thus, a diversity task force will address this priority in depth, while the topic of diversity will be part of the conversation in all other groups as well. To foster collaboration throughout this process, task force leaders will work with the UWB 21st Century Campus Initiative Guidance Group, a partnership between the Office of Academic Affairs, the General Faculty Organization Executive Council, and General Staff Organization representatives.

Moving Forward: proposed approach

A. Finalize and adopt the 21st Century Campus Initiative.

- Present Draft #1 at Faculty/Staff Workshop, 3/7/08.
- Circulate Draft #2, revised to reflect workshop outcomes, later comments and recommendations by the GFO EC/GSO Guidance Group, 3/15/08.
- Post Draft #3 for a 30-day comment period, 4/15/08.
- Present final document to GFO EC/GSO Guidance Group for approval, 5/08.
- Transmit document to the chancellor for approval.
- Publish the 21st Century Campus Initiative.
- Incorporate action plans as they are developed.

B. Address financial sustainability in creating and implementing action plans.

- Allocate resources to achieve enrollment growth in ways that support the distinctiveness outlined in the 21st Century Campus Initiative.

C. Expand existing research and assessment capabilities.

- Expand the Office of Institutional Research to enhance the analysis of student and regional needs, as well as institutional performance. This information will help us remain flexible to changing environmental factors as we implement our priorities.
- Analyze data on changing demographics and plan to meet the needs of our projected student population.
- Assess progress in meeting priorities annually.
- Review our priorities plan annually and revise as needed based on changing data, projections and environmental factors.

D. Develop action plans based on task force recommendations.

- Create task force groups to recommend actions and timelines, identify measures for gauging success, and consider other issues related to the central focus.
- Maintain a flexible timeline for task force work, with the following proposed task force groups and formation dates:
    - Enrollment Growth - STEM and Health, Winter 2008
    - Institutional Enrollment Management, Spring 2008
    - Sustainability Initiative, Spring 2008
    - Enrollment Growth - Social Sciences, Fall 2008
    - Diversity, 2008-09
    - Technology and Innovation in Teaching, 2008-09
    - Student Services/Student Life, 2008-10
    - Community Engagement, 2008-10
    - Enrollment Growth - Visual, Literary and Performing Arts, 2009-10
    - Enrollment Growth - Foreign Language and Culture, 2009-11

- Charge task force groups to consider their area of focus in relation to the overall priorities plan.
- Support existing and emerging efforts to advance our priorities both within and outside of task force work.

E. Develop an on-going communications program supporting the 21st Century Campus Initiative.

- Build familiarity with our priorities throughout campus.
    - Produce and distribute materials highlighting plan elements.
    - Provide updates on activities supporting our priorities.
- Encourage on-going reflection, comment and input from all areas as we move forward.
- Hold a follow-up workshop with faculty and staff in Spring 2009 to discuss our progress and update our steps for moving forward.

University of Washington Vision Statement

The University of Washington educates a diverse student body to become responsible global citizens and future leaders through a challenging learning environment informed by cutting-edge scholarship. Discovery is at the heart of our university. We discover timely solutions to the world's most complex problems and enrich people's lives throughout our community, the state of Washington, the nation, and the world.

Core Values

integrity **diversity** **excellence** **collaboration** **innovation** **respect**

Uniquely Washington

The University of Washington's vision and strategic priorities must consider the characteristics that make us great and unique, and must reflect our core values and culture.

UW Standard of Excellence: We recruit the best, most diverse and innovative faculty and staff from around the world, encouraging a vibrant intellectual community for our students. We link academic excellence to cutting edge research through scholarly exploration and intellectual rigor. We hold ourselves to the highest standard of ethics, as a beacon for our community and the world.

Academic Community: We are educators and learners. We promote access to excellence and strive to inspire through education that emphasizes the power of discovery and the foundation of critical and analytic thinking. We foster creativity, challenge the boundaries of knowledge, and cultivate independence of mind through unique interdisciplinary partnerships.

World Leaders in Research: We have grown into the most successful public research university in the nation in attracting support for our research. Ours is a proud culture of innovation, collaboration, and discovery that has transformational impact.

Celebrating Place: The natural beauty of the Pacific Northwest envelops us. This is an important element of who we are, for this awe-inspiring place not only anchors us, it reaffirms our desire to effect positive change in the world around us. We accept gratefully our role in preserving and enhancing Washington: the place, the people, our home.

Spirit of Innovation: As Washingtonians, we are profoundly optimistic about our future. Based on our past and present, we find inspiration for the future. Ours is a culture with a determined persistence that engenders innovation and a belief that our goals can be realized.

World Citizens: We are compassionate and committed to the active pursuit of global engagement and connectedness. We assume leadership roles to make the world a better place through education and research. We embrace our role to foster engaged and responsible citizenship as part of the learning experience of our students, faculty, and staff.

Being Public: As a public university, we are deeply committed to serving all our citizens. We collaborate with partners from around the world to bring knowledge and discovery home to elevate the quality of lives of Washingtonians. This guides our decision-making as well as our aspirations and vision for the future.

Creating UW's Future: Meeting the Grand Challenges

Goal 1: Attract a diverse and excellent student body and provide a rich learning experience

Goal 2: Attract and retain an outstanding and diverse faculty and staff to enhance educational quality, research strength, and prominent leadership

Goal 3: Strengthen interdisciplinary research and scholarship to tackle "grand challenge" problems that will benefit society and stimulate economic development

Goal 4: Expand the reach of the UW from our community and region across the world to enhance global competitiveness of our students and the region

Goal 5: Maintain and build infrastructure and facilities to insure the highest level of integrity, compliance and stewardship

Priority Action Worksheet

The 21st Century Campus Initiative
University of Washington Bothell Priorities Plan 2008-2020

priorities and goals	action steps and notes

Growth: Serve the citizens of Washington by providing increased access to a premier university education.
• Grow enrollment to 5,000 FTE in 12 years.
• Develop new undergraduate and graduate majors, programs and foundational studies in areas of high demand:
  • Science, Technology, Engineering and Math (STEM); and Health
  • Social Sciences
  • Visual, Literary and Performing Arts (VLPA)
  • Foreign Language and Culture
• Support growth in existing program areas: CSS, Business, Education, IAS, Nursing and CUSP.
• Understand and respond to projected demographic changes.
• Use technology and innovative delivery modes to overcome barriers to enrollment and extend UWB's reach.
	Task Force Appointments
	• *STEM & Health, Winter 2008*
	• *Enrollment Growth (EG) - STEM & Health, Winter 2008*
	• *Institutional Enrollment Management, Spring 2008*
	• EG - Social Sciences, Fall 2008
	• EG - VLPA, 2009-10
	• EG - Foreign Language, 2009-11
	Action Notes*
	• *STEM Task Force Report, April 2008*
	• *Science & Technology (S & T) Program Proposal presentation to campus, 6/08*
	• *Electrical Engineering NOI, 6/08*

Resourcefulness: Build institutional sustainability through sound, creative use of financial and human resources.
• Operate within the fiscal boundaries of a public university.
  • Demonstrate the value of UWB to the region.
  • Enhance the flexible use of resources.
• Plan to build flexible facilities to accommodate future academic programs and services.
• Address professional development and support to sustain human resources.
• Expand opportunities for additional funding sources, including:
  • Development, funded research and self-sustaining programs
	Task Force Appointment
	• *Institutional Enrollment Management, Spring 2008*
	Action Notes
	• *Resource allocations aligned with UWB priorities*
	• *Pre-design for UWB 3, Spring 2008*
	• *Roadmap project outlining personnel, capital and enrollment milestones, Spring 2008, completion Fall 2008*

Actions/steps in italics are completed or underway as indicated.

Priority Action Worksheet

priority and goals	action steps and notes

Diversity: Enhance campus commitment to diversity and inclusiveness.
• Enhance recruitment and support for underrepresented faculty, staff and students.
• Incorporate multicultural content and diverse perspectives in learning and scholarship
• Support success for a student body of increasing diversity in ethnicity, race, gender, age, sexual orientation, social class and disability.
  • Create a multicultural program.
  • Create bridge and support programs.
  • Build P–12 and community college pipeline partnerships.
  • Maintain commitment to students of all ages and those with disabilities.
	Task Force Appointment
	• Diversity, Fall 2009
	Action Notes
	• *S & T Program charged with addressing Diversity goals, 2008*
	Program Examples
	• *Imagine Environmental Stewardship Outreach 6/08*
	• *Space Huskies Science Outreach, since 2005*
	• *All-campus lunch on Equity & Diversity, 4/08*
	• *7th Annual Intercultural Night, 5/08*
	• *Dream Project, Fall 2008*
	• Bridge Program Launch, Fall 2009

Student-centered: Enhance student services to support academic success and enrich student life
• Enhance advising and career services.
• Provide comprehensive academic support, including Library, Writing Center, Quantitative Skills Center, Media Center and new programs.
• Address student-life issues, including:
  • Housing, social and recreational opportunities
  • Health, mental health and childcare services
	Task Force Appointments
	• *Institutional Enrollment Management, Spring 2008*
	• Student Services/Student Life, 2008-10
	Action Notes
	• *S & T Program charged with addressing academic support needs for STEM fields, 2008*
	• Fitness Center, opens Fall 2008

Community: Deepen and broaden community engagement and research. • Build the UWB community by fostering lifelong learning and alumni outreach. • Broaden impact to encompass diverse regional, statewide and global communities. • Enhance research activities focused on local through global issues. • Promote service- and community-based learning and research. • Develop productive relationships with the employment community. • Build our reputation by demonstrating our distinctiveness and telling our story.	Task Force Appointments • Community Engagement 2008-2010 Action Notes • *Biotechnology and Biomedical Technology Institute created, 4/08* Program Examples • *Community Partnerships Fair with Cascadia CC, 5/08* • *Proposal for Center for Community- based Learning & Scholarship, 6/08* • *Center for Student Entrepreneurship Competition, 6/08*

***Actions/steps in italics are completed or underway as indicated.**

Priority Action Worksheet

The 21st Century Campus Initiative
University of Washington Bothell Priorities Plan 2008-2020

priority and goals	action steps and notes
Innovation: Support signature strengths in interdisciplinary scholarship and innovative teaching. • Support collaborative, interdisciplinary and cross-program initiatives. • Engage faculty and students in inquiry-based approaches to learning. • Develop regional partnerships that enhance teaching and research. • Promote innovative teaching methods that foster student/faculty interactions. • Employ innovative technology to enhance educational experiences.	Task Force Appointment • Technology & Innovation in Teaching, 2008-09 Action Notes • *S & T Program charged with incorporating effective, innovative teaching and technology, 2008* • *Goodlad Institute for Educational Renewal, March 2008* • *Center for Reinventing Public Education, April 2008* Program Example • *Projects with UW Restoration Ecology Network, ongoing*
Sustainability: Develop environmental and human sustainability as a signature initiative. • Gain national distinction for leadership and scholarship in sustainability issues. • Promote community partnerships in sustainability activities. • Build on interdisciplinary studies and research about sustainability. • Value the development of sustainable and healthy human communities. • Promote a green campus culture, with the wetlands as a centerpiece. • Become low-impact through materials and energy stewardship.	Task Force Appointment • *Sustainability, Summer 2008* Program Examples • *Brightwater MOU, 3/2008* • *CSS Speaker Series - Global Warming, 4/08* • *Discovery Café - Climate Change, the Common Book & Campus Projects, 4/08*

The 21st Century Campus Initiative was developed in partnership with faculty, staff, students, alumni and community advisors. It addresses our state's need for increased enrollment and outlines our priorities for achieving growth in a distinctive, fiscally responsible manner. These priorities will form the foundation of a UWB Roadmap project outlining the personnel resources, capital building needs and student enrollments that will be necessary to meet our goals. - July 1, 2008

Actions/steps in italics are completed or underway as indicated.