

Engineering and Technology Industry Council Campus Investment Proposal Biennium from July 1, 2011 to June 30, 2013

Campus: Western Oregon University

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Summary of Proposal:

To support our programs so that the students that graduate not only have a strong foundational knowledge in the discipline of computer science but are also experienced with the latest tools and technologies that are being used in the computing environment. Depending on the direction they may choose in our curriculum this includes advancements in; software engineering, database administration, data integrity/security, information systems and now our new Masters in MIS. We have long viewed our programs as terminal degrees that would be used to gain entry into the computing industry.

Vision and Goals Statement

The WOU Computer Science Mission statement:

Mission: Software-oriented program that stays close to the current needs of industry. We teach theoretical and practical aspects of computer science, with emphasis on the practical. Our primary goal is to give students a comprehensive foundation in the field of computer science within a liberal arts setting. We are committed to preparing graduates who will be productive employees in the IT industry or promising graduate students.

Investment Description

The majority of our request will go towards the recruitment and support of faculty. The amount would be .4M for each of the years of the biennium. That would provide support for approximately 6—7 faculty. Using past years as a guide this would generate approximately 24—30 additional courses per year and serve approximately 600 additional students.

With the expansion in both the undergraduate curriculum and graduate offerings there is need for classroom (2) and laboratory space (2) approximately (.2M). There will be some new hardware and software necessary for the new course(s), laboratories and classrooms. (.1M) This would include hardware and software for the investigation of “cloud computing”, also software for the creation of courses/curriculum relating to “sensing technologies” and informatics.

Cloud computing is a topic which must be covered for our current and future students. There are only a handful of qualified people out there who actually understand the basics of cloud computing, much less the details behind cloud computing architecture, implementation, development, testing, and security.

Sensing technology is being developed at Oregon State. I have spoken to Dr, Bose, Professor of Computer Science & Associate Director for Academic Affairs. We feel that by modifying our current computer science degree program, specifically in the data management/mining component, that we will be able to create good candidates for the graduate program at Oregon State. We hope to work closely with the Oregon State computer science department on this task.

We have also aligned with some private companies doing collaborative application development. We will need salary, hardware and software to aid in this effort (.25M).

Private Support

We hope to further our current relationship with the Oracle corporation in the hopes that some of their database, data management tools could be provided to help our existing courses and also be a resource for the sensing technology project mentioned previously.

Results and Benefits

Short-term (2011-2013)

With funding we expect to grow our course offerings at both the undergraduate and graduate level. The faculty hired will teach from the general entry level curriculum up to advanced senior and graduate level courses in the discipline of data mining and database administration. Metrics will be recorded regarding student enrollment and new courses offered. As mentioned before we will partner with Oregon State in the development of new curriculum which will provide a path for our graduates in the sensing technology discipline. We have also aligned with some private companies doing collaborative application development. We expect this to lead to licensing and possible spin-offs in the future.

Medium-term (2015-2020)

By this time we hope that we will have had some graduates that have chosen the sensing technology elective sequence and we will be able to track them regarding; have they gone on to Oregon State, another graduate program, or into the computing industry.

We hope to have continued growth in our undergraduate and graduate programs.

We would like to see growth in our women undergraduate enrollment, we should have a female tenure track professor by then and one of her assignments will be to facilitate the recruitment of women to our program.

We also hope to see growth in our minority population due to the creation of an alliance to Central High School in Independence Oregon. With our own initiatives and those funded by ETIC we expect to be equal to or slightly above our peers.

Future Plans & Resources

With the growth we have experienced in the undergraduate and especially in the graduate program the financial resources from ETIC that support the additional faculty are crucial. As our new projects are realized we hope that the increase in tuition revenue and outside dollars will allow us to move from ETIC financed faculty to Western Oregon general fund. We currently rely heavily on ETIC to support our additional faculty and thus provide the pipeline courses our students need to graduate. As we continue to grow student numbers we will continue to out pace our ability to recruit and hire new faculty. Therefore the amounts for the biennia 2013—2020 will be roughly the same scale as the 2011--2013 request to continue our current projects. With the addition of new degrees, majors and or courses the amount requested would be changed to reflect the additional need.

Proposed Investment and Private Support Forecast (\$M)

		2011-2013 Biennium
1	Sources of funds	
2	Base budget for ETIC-related programs – all sources except ETIC allocation & private support	1.28
3	Proposed allocation from ETIC budget (\$M) (3)	1.50
4	Expected private support (\$M) (4)	0.50
5	Total (\$M)	3.28
6	Personnel supported (FTE) (5)	
7	Existing faculty (1)	4.0
8	New faculty(2)	3.0
9	Existing staff (1)	2.0
10	New staff(2)	0.0
11	Total	9.0
12	New positions created (6)	
13	Faculty (2)	3.0
14	Staff (2)	0.0
15	Total	3.0
16	Uses of ETIC funds in line 3	
17	New facilities	\$ -
18	Improvements to facilities (7)	0.20
19	Laboratory equipment (7)	0.20
20	Other equipment (7)	\$ -
21	Other one-time expenses	0.20
22	Existing faculty salaries & benefits (1)	0.50
23	New faculty salaries & benefits (2)	0.30
24	Existing staff salaries & benefits (1)	0.10
25	New staff salaries & benefits (2)	0.00
26	Services & supplies	0.00
27	Other	0.00
28	Total (8)	1.50
Instructions. (Replace with your own notes in the document you submit.)		
(1) Hired through June 2011 that will be supported by ETIC funds during 2011-13		
(2) To be hired with ETIC funds during 2011-2013 biennium.		
(3) Include any Certificates of Participation to be issued during 2009-2011		
(4) Consistent with ETIC Private Support Policy dated 1-23-02.		
(5) FTE expressed as percent of full time over 2 years of biennium. For instance, a new full-time faculty member hired on 7/1/12 would be counted as 0.5 because he/she joined half way through the biennium.		

Metrics Forecast (for programs/departments receiving ETIC funding):

	Actuals (1)		Projected (2)		
	AY 99	AY09	AY13	AY15	AY20
Undergraduate student credit hours	7170	7700	8000	8500	9500
Graduate student credit hours	0	600	960	1500	1650
Graduation rate, 6-year (3)	0.82	0.8	0.85	0.85	0.85
Bachelor's degrees granted	40	35	42	45	50
Master's degrees granted	0	1	24	40	50
PhD degrees granted	0	0	0	0	0
Women graduating (4)	5	5	7	12	15
Minorities graduating (5)	2	3	6	8	10
Externally-funded research expenditures (6)	0	0.01	0.1	0.125	0.15
Invention disclosures (7)	0	0	0	0	0
License/options (8)	0	0	1	2	2
License income received (9)	0	0	0.01	0.025	0.04
Spin-off Companies (10)	0	0	1	1	1
National ranking of <program or department> (11)	na	na	na	na	na
National ranking of <college>	na	na	na	na	na
(12)					
Notes/instructions. (Delete these notes and replace with your own in the document you submit.)					
(1) Actuals for 12-month period ending in June of the year shown.					
(2) Forecast for the 12-month period ending in June of the year shown.					
(3) Percentage of undergraduate students who started ETIC-Supported program as freshmen six years earlier who have completed bachelor's degree in an ETIC-supported degree.					
(4) From engineering, computer science, and other programs directly benefiting from ETIC funding, stated as percent of all those graduating.					
(5) Racial and ethnic minorities who are US citizens or permanent residents, stated percent of US citizens or permanent residents graduating.					
(6) Total external dollars spent by ETIC-related departments towards research during academic year.					
(7) See Association of University Technology Managers (AUTM) survey definitions.					
(8) Number of license or option agreements executed during the year. See AUTM survey definitions.					
(9) License issue fees, payments under options, annual minimums, running royalties, termination payments, the amount of equity received when cashed in, and software end-user license fees equal to \$1000 or more, but not research funding, patent expense reimbursement, valuation of equity not cashed-in, or end-user license fees less than \$1000. See AUTM survey definitions.					
(10) New companies that were dependent on the licensing of your program's technology for their initiation. See AUTM survey definitions.					
(11) Forecasts for multiple programs and departments are encouraged. Each ranking should be footnoted with the ranking body or ranking methodology.					
(12) Add additional metrics as appropriate.					