

Addendum 1 – Investment Descriptions

Investment Descriptions: Summaries of the Undergraduate, Graduate, and Research investments proposed in this document. More complete proposal narratives are also available at the ETIC website - - www.oregonetic.org

Undergraduate Programs:

OIT & Collaborative Programs w/PSU, WOU, SOU and EOU

OIT (with SOU, EOU, WOU) Increasing Capacity of Information Technology (IT) Degrees

Entity	Program	State Funds	Industry Contributions	Follow-on Requests
OIT & Collaborations (SOU, EOU and WOU)				
OIT, SOU, EOU, WOU	OIT (with SOU, EOU, WOU) Increasing Capacity of IT Degrees	\$ 0.35	\$ 0.15	\$ 0.10

This proposal would continue the collaborative work currently underway among key faculty and staff at the collaborative institutions to increase capacity and numbers of graduates in the key IT fields of Computer Science, Information Technology Management, and Computer Systems Engineering Technology.

Proposal objectives include: Freshman-level courses (especially computer programming) in Computer Science at WOU and SOU, Computer Systems Engineering Technology at OIT, Information Technology at OIT, and OIT delivery of computer courses at EOU.

Pre-College Programs:

Entity	Program	State Funds	Industry Contributions	Follow-on Requests
OIT & Collaborations (OIT, PSU, OCECS)				
OIT	OIT Pre-College Experiential Programs	\$0.30	\$ 0.07	\$0.30
PSU	Saturday Academy	\$0.40		\$0.40
OCECS	RFP Process	\$0.40		\$0.40

OIT Pre-College Experiential Programs including OPT for Co-op

The Pre-College Programs addresses the need to increase the awareness of students, teachers, and parents of technical professions.: They are designed to increase the pipeline of students enrolling in OIT’s engineering and technology majors. This is accomplished by providing career information and exploration opportunities to high school students that consist of workshops, summer camps and internship opportunities.

A new addition to this project is the development of workshops for parents and teachers. These workshops would provide an overview of Oregon’s high tech industries and the career fields and college majors that are needed to support these industries. These workshops are directed at the people who have the most impact on a student’s career decision making.

Saturday Academy (PSU, housed at OHSU/OGI)

Apprenticeships in Science and Engineering (ASE) and Advocates for Women in Science, Engineering and Mathematics (AWSEM)

The ASE Program currently serves approximately 150 students per year. With this investment it will serve up to 70 additional high school students in its established eight-week full-time summer mentorship program over the biennium. The focus of these new positions will be to increase statewide participation of both mentors and students, thereby

introducing more students to science and engineering professions. The ASE Program (Apprenticeships in Science and Engineering) includes a mid-summer academic and career exploration conference, use of internet/web for communication and research, and a final symposium at which students present their work to the public. The AWSEM Program (Advocates for Women in Science, Engineering and Mathematics) will develop after-school clubs for middle and high school girls statewide to stimulate interest in these fields and to introduce students to women science and engineering professionals. Clubs will be led by graduate and undergraduate women science and engineering majors.

Pre-College Request for Proposal Process

A Request for Proposals (RFP) will be distributed to organizations in Oregon that serve K12 students in the area of technical enrichment. Based on pre-established criteria, the proposals received will be reviewed by an ETIC subcommittee. The subcommittee's recommendations will be reviewed by ETIC and grant awards will be made in late 2001 for the period January 2002 through June 2003. See Addendum 3 for details.

IT Educational Programs for Working Students

Entity	Program	State Funds	Industry Contributions	Follow-on Requests
OIT				
OIT	OIT: Information Technology Educational Programs for Working Students. * Certificates and Degrees	\$ 0.40	\$ 0.05	\$ -

The IT program is composed of coursework from computer software engineering and management information systems.

This IT expansion will emphasize both degree and certificate programs in Portland . Participants will be equipped to develop appropriate computer systems and application programs to solve business problems in their organizations. Participants can be expected to develop custom solutions or to tailor purchased systems, enabling their organizations to efficiently invest information resources.

In response to this need, Fall 2000 Oregon Institute of Technology launched a Bachelor’s degree program in Information Technology (BSIT) at their Klamath Falls campus. The BSIT program is also offered at the Capital Center Portland campus.

Extending Technology (OIT w/OSU)

Entity	Program	State Funds	Industry Contributions	Follow-on Requests
OIT & Collaborations (OGI, OSU, SOU, EOU and WOU)				
OIT	OIT (with OSU) Extending Technology to Rural Communities, Enterprises, 4-H Extension and Other Youth	\$ 0.35	\$ 0.33	\$ 0.10

Project Name: Pilot Project for Extending Technology to Rural Communities, Enterprises, 4-H Extension and Other Youth

Institutions: This is a collaborative project of the Oregon Institute of Technology and Oregon State University.

Project Description:

This pilot project is a collaborative effort of OIT’s Oregon Technology Center (OTC) and OSU’s Extension Service to expand technology education resources outside the Metropolitan area. The project’s initial activities will occur in pilot counties located in Southern, Central and Eastern Oregon. The project will extend technology education to rural communities, enterprises, 4-H Extension and other youth in those regions for the purpose of building human capital and enhancing rural economies.

Growth in Undergraduate IT Program

Entity	Program	State Funds	Industry Contributions	Follow-on Requests
OIT				
OIT	Information Technology	\$ 0.10		0.10
OIT	Subtotal	\$ 0.10	0.00	0.10

70K Faculty and Tech support.

This would be one full-time faculty member to add to the IT department. This position would either create and deliver online/video courses or free another instructor to do so. It would also include a full-time technical support person to support the video equipment and schedule courses. This position could also be a part-time instructor.

20K Create and furnish a video classroom.

With the demise of EdNet, OIT is losing one video classroom. The TV studio will be used for other purposes. OIT is also planning on adding more courses which will be taught over video. Specifically, IT courses delivered to EOU. We have estimated the video equipment, tables, chairs, and other minor remodeling of one of our existing classrooms at 20K.

10K Materials and Supplies.

In some ways this is that miscellaneous category. It will provide for any material needed for offering classes and will be a fund for the technical and repair supplies needed for the tech support person.

U of O

Networking

Entity	Program	Requested/ Biennium	Industry Contributions	Follow-on Requests
UofO	Networking	\$ 0.40	\$ 0.10	\$ -

A recent study by the U.S. Department of Commerce projects that Oregon's technology work force will triple in the next six years, with networking being one of the most intense areas of growth. In response to this need and as the recognized leader in networking in the state, the Department of Computer and Information Science at the University of Oregon has a 3-4 year plan for expansion of the networking curriculum and faculty. (See <http://www.cs.uoregon.edu/~lo/intel.html>) The heart of this plan involves the creation of seven new practical, laboratory-based courses in networking and operating systems to complement established computer science courses currently offered in these areas. These new laboratory courses will be integrated with our strong research program through research internships, on the one hand, and with real world experiences through industrial internships, on the other. (The UO CIS Network Research Group is at <http://www.nrg.cs.uoregon.edu> and recently received a \$1million grant from NSF.) We have strong industry support from CISCO and Advanced Relay, and possibly Intel through the recent grant proposal we submitted. We anticipate that increased investment by ETIC in our networking research program will allow us to seek NSF Graduate Training money, as well as increased research grants from NSF's ITR program. The expected increase is another \$1million in the next three years.

Expanded Capacity for Undergraduate Majors in CIS

Entity	Program	Requested/ Biennium	Industry Contributions	Follow-on Requests
UofO	Expanded Capacity for Undergraduate Majors in CIS	\$ 0.30	\$ -	\$ -

We are currently experiencing a huge 35-40% increase in enrollment in the CIS major compared to our enrollment in 1997-98. In Fall 1997 we had 396 majors; in Fall 1999 we had 531. In academic year 97-98 we had 56 students graduate; in June 2000 we expect 81. This expansion is presently limited by the relatively flat funding of the past few years and the high cost of high technology education. The Department will be able to continue this expansion if investment resources are available for faculty, for graduate teaching fellows, and for computer labs. The student demand for this major will continue to be strong, particularly given the projection of 28% growth in Oregon technology employment over the next three years (Oregon Technology Benchmarks 1998 report). Funds were originally requested to provide a 25% expansion in the number of CIS majors graduated per year. The available funding left in the ETIC budget allowed an 8% expansion. We are now requesting funding for an additional 20%. This will allow us to increase the number of course sections taught in the major by 30%.

OSU

Entity	Program	Requested/ Biennium	Industry Contributions	Follow-on Requests
OSU	Continuation of 99-01 Growth Initiative	\$ 1.00		
OSU	Growth I: learning Infrastructure Support	\$ 1.90	\$ 3.20	
OSU	Growth II: Add Degrees			1.25
	Subtotal	\$ 2.90	\$ 2.10	\$1.25

The College of Engineering strategic plan calls for an innovative undergraduate learning environment, interdisciplinary research programs, recruitment and retaining the best students, and providing leadership in advanced technology. We have made significant progress towards achieving these goals over the past 18 months. Among our achievements are:

Top-end high school students enrollment in the College increased by 38% from fall 1998 to fall 1999. We placed 250 student interns in 55 MECOP member companies, and others in more informal internship positions. Our students scored in the upper 2 percentile on the national Fundamentals of Engineering Exam.

Our achievements have been enabled through targeted initiatives such as the Engineering Education Investment Fund, scholarship programs offered by OSU and the College for top-end high school students, support from industry particularly in the infrastructure and high-tech areas, and focused initiatives within the College of Engineering.

We request funding for the 2001-03 biennium to increase our resident degree output rate to 622 by 2004-05 from 389 in 1998-99, a 60% increase. As we grow, we would like to continue to increase the proportion of freshmen students with 1300 or better SAT. We will also continue the innovation in our undergraduate programs to develop high quality engineers--the best combination of technical skills, entrepreneurial skills, social skills, life long learning skills and internships--that make them the best prepared to immediately deliver results. Our request in the undergraduate category consists of funds for infrastructure and process improvement (*Learning Infrastructure Support*), and for hiring new faculty and support staff, student scholarships and curriculum innovation (*Add Degrees*).

PSU

Entity	Program	State Funds	Industry Contributions	Follow-on Requests
PSU				
PSU	Faculty Continuation	\$ 0.63	\$ 1.50	\$ -
PSU	Enrollment Services	\$ 0.65	\$ 0.40	\$ 0.16
PSU	Lab Improvements	\$ 0.15	\$ 0.80	\$ -
PSU	Faculty for Growth	\$ 0.41	\$ 1.20	\$ 0.82
	Subtotal	\$ 1.83	\$ 3.90	\$ 1.86

Increasing undergraduate engineering and computer science enrollment and degrees is critical to sustaining economic growth in Oregon's high tech industry and in maintaining and improving our civic infrastructure (roads, environmental quality, etc.). In summary, our requests will interest more kids in engineering and computer science, keep those kids in Oregon to study engineering, make sure they successfully complete their degrees, and provide faculty and facilities to make sure we don't turn away qualified Oregon students and that we give them high-quality education in areas of critical importance to our state economic future.

To increase undergraduate enrollment and degrees we must simultaneously do four things, all of which are addressed by our request:

1. Interest more of Oregon's K-12 students in careers in engineering and computer science and make sure they succeed in science and math coursework. Using a portion of our requested investment in enrollment services we will expand programs like our engineering design competition and will increase our presence in Oregon schools. Other components of this "pipeline" issue will also be addressed in collaboration with our outreach program (MESA) and those of our partners, e.g., Saturday Academy at the Oregon Graduate Institute, which are requesting funds elsewhere in the ETIC proposal.
2. Convince more qualified Oregon high school graduates to study engineering and computer science at PSU. The largest portion of our requested investment in enrollment services will fund recruiting activities and scholarships to keep Oregon's brightest kids in Oregon as engineering and computer science majors. The investments made in this area in the 1999-2001 biennium have helped us to leverage scholarship funds from private donors and the National Science Foundation. As a result, we were able to offer nearly 100 new scholarships in the fall of 2000.
3. Support PSU's engineering and computer science students so that they will successfully complete their undergraduate degrees. A portion of our requested investment in enrollment services is combined with existing university resources to provide improved advising and other student support activities.
4. We must make sure that we have enough faculty and equipment to give more and more students quality education in the areas they need. Our request for lab improvement will build on existing faculty expertise to provide equipment for hands-on student education. Our request for faculty continuation will allow us to keep 5 faculty members added during the 1997-1999 and 1999-2001 biennia. Our request for faculty for growth will add 4 new faculty in areas key to Oregon's economic future. Of course, all PSU faculty are active at both the undergraduate and graduate (masters and doctoral) levels. PSU and OGI have and will continue to coordinate their faculty recruitment to ensure good program balance and critical mass in key areas.

SOU**Growth in undergraduate and graduate Computer Science programs**

Entity	Program	State Funds	Industry Contributions	Follow-on Requests
SOU				
SOU	Computer Science	\$ 0.36	\$ 0.05	\$ 0.35
SOU	Subtotal	\$ 0.36	\$ 0.05	\$ 0.35

SOU's Proposed Use of \$500,000 for the 2001-03 biennium to enhance Computer Science programs is as follows:

- Full time faculty at the Assistant Professor level (approximately \$75,000 per year), phased in during the first year of the biennium.
- Rotating or Visiting Faculty Appointments for practicing professionals in Computer Science or Applied Multimedia (six to twelve, 4 credit courses per year at \$5,000 per course), phased in during the first year of the biennium.
- Graduate Coordinator to assist growth of existing Master*s program. This individual will work on recruitment of students and will teach one graduate course and will supervise student thesis projects.
- Full time Instructor/Computer Lab Administrator (approximately \$45,000 per year), who will teach approximately half time, partially funded by Collaborative during first year of the biennium. Fully funded from this source for second year.
- Classroom upgrades to equip the additional classrooms needed for instruction of the added classes.
- Faculty summer stipends for work on graduate and undergraduate program enhancements and student recruiting. These funds also will help retain existing faculty.
- Graduate assistantships will help to recruit three to six new students to the existing Master*s program.
- Part-time instruction in Computer Science or Applied Multimedia to meet additional demand as needed in these areas.
- Computer lab upgrade needed to replace hardware acquired in 1999-00.

WOU

Growth in Undergraduate Computer Science Program

Entity	Program	State Funds	Industry Contributions	Follow-on Requests
WOU				
WOU	Computer Science	\$ 0.10		0.10
WOU	Subtotal	\$ 0.10	0.00	0.10

A \$100,000 investment of ETIC funds at WOU for the 2001-2003 biennium would be used to increase our computer science graduates by 15% (six additional computer science graduates) by 2003. If the funding is continued into the next biennium (2003-2005) then a 25% (ten additional graduates) by 2005 could be realized. Both of these amounts are based on the current graduation numbers of approximately forty graduates for each of the past two years. The funds will be applied on two fronts: 1) to increase computer science staff, allowing more students to enter the computer science curriculum, and 2) to expand college-level computer science course offerings to Oregon high schools.

The increase in course staffing is necessary. Over the past five years, the Computer Science Division at WOU has had one retirement and two resignations. Those losses were only partially countered by one successful hire after three national searches. For the stability of our high tech programs, and to meet the on-going needs of our future students, we would hope that the biannual funding would become permanent so that tenure-track faculty could be successfully recruited to WOU. However, degreed computer scientists are in a very competitive market and any expansion we undertake may require the use of adjuncts. Adjuncts have been an efficient way to staff courses in the past, although of course recruitment and retention of permanent faculty is strongly preferred.

Expanding college-level course offerings to Oregon high schools will dovetail with the current development of on-line computer science course offerings. We intend to recruit and train high school computer science teachers on our online platform so that they can oversee the course delivery. This would extend recognized college-level courses to those students that have an interest in the discipline and possibly encourage them to continue in the computer science field. All of these courses would have an OUS equivalency.

The budget breakdown would be approximately 80% towards the staffing of coursework to expedite the computer science graduation rate. One metric describing the need for the additional staffing is that computer science experienced a 71% growth rate of declared majors during the past year. This funding would help alleviate any bottlenecks that will likely occur due to this increased demand. The remaining 20% would be devoted to the delivery of on-line course resources to

Oregon high schools. Informal polling (at the 2001 SuperQuest teachers' summer institute) shows a great deal of interest from high school teachers and we estimate 200 students could utilize the material by 2003.

EOU

Growth in Undergraduate Computer Science Program

Entity	Program	State Funds	Industry Contributions	Follow-on Requests
EOU				
EOU	Computer Science	\$ 0.10		0.10
EOU	Subtotal	\$ 0.10	0.00	0.10

The Computer Science/Multimedia Program at Eastern Oregon University is currently completing its third year of operation, and graduated its first students this year. There are currently 75 students pursuing the CS/MM degree and we anticipate a growth rate of 6%/yr. With additional funding, we anticipate 74% increase in student credit hours generated, and a graduate rate of approximately 22 students/yr. within 5 years. We view additional resources from ETIC as an important opportunity to enhance faculty and equipment at EOU, and to initiate a significant new IT collaboration investment with OIT. OIT would provide its Computer Software program on EOU's campus, complementing our current course offerings. This program would considerably enhance the opportunity of EOU students in a cost effective, non-duplicative program.

Addendum 1 – Investment Descriptions, continued

Investment Descriptions: Summaries of the Undergraduate, Graduate, and Research investments proposed in this document. More complete proposal narratives are also available at the ETIC website - - www.oregonetic.org

Graduate:

OGI

Faculty Expansion

Entity	Program	Requested/ Biennium	Industry Contributions	Follow-on Requests
OGI	Faculty Expansion	\$ 2.00	\$ 0.40	\$ 0.72

SB 504 directs ETIC to implement an investment strategy for the Oregon Engineering Education Investment Fund "responding to the urgent engineering educational needs of Oregon's fast growing high technology industry, especially in the Portland metropolitan area." As we did for the 1999-2001 Biennium, PSU and OGI are responding to this challenge by submitting a joint proposal to ETIC for a coordinated program of faculty expansion to serve pressing needs for education and research capacity in the Portland metropolitan area.

PSU and OGI have cooperated in identifying disciplines with the highest priority for engineering education capacity expansion in the Portland metropolitan area. OGI will focus its Oregon Engineering Education Investment Fund faculty recruiting in the following areas, maintaining flexibility within the list to hire the best qualified candidates available:

- Networking (2 positions)
- Computer and Network Security
- Hardware Verification
- Software Verification
- Embedded Systems Engineering
- Natural Interfaces
- Intelligent Signal Processing
- VLSI Design
- Semiconductor Engineering
- Business and the Internet

PSU and OGI will coordinate all faculty recruitment activities, including candidate interviews. The goal of the coordinated process will be to achieve, between the two institutions, both balance across program areas and critical mass within targeted program areas.

Faculty Continuation

Entity	Program	Requested/ Biennium	Industry Contributions	Follow-on Requests
OGI	Faculty Continuation	\$ 0.33	\$ 0.20	\$ -

OGI is requesting continuation funding for each of two new faculty positions created during the 1999-2001 Biennium. OGI's ETIC proposal for the 1999-2001 Biennium described the justification for these new faculty positions.

Webcast - OGI portion (w/PSU)

Entity	Program	Requested/ Biennium	Industry Contributions	Follow-on Requests
OGI	Webcast - OGI portion (w/PSU)	\$ 0.10	\$ 0.01	\$ -

The ECE departments at PSU and OGI have been working for some time to unify their graduate level curricula. Our long-term goal is a single, virtual graduate curriculum. For the last three years we have been cross listing some of each other's courses. However, the number of students who take these crossover courses from the other institution is still rather small. A big part of this is due to the difficulty that OGI students have commuting in to PSU and vice-versa.

One of the areas where the two departments have strong complementary research and education is in VLSI design, which is also an area that is important to many Oregon based companies. Providing a distance learning capability for these courses would significantly enhance the curriculum for both schools, making PSU courses more accessible to OGI students and vice-versa. What makes semiconductor engineering courses more difficult to adapt to distance learning format is that these courses typically have a variety of labs associated with them.

To complement this existing Internet2 distance laboratory effort, we are proposing to create the infrastructure to do web-casting of PSU circuit and test courses to OGI students (on campus at OGI) and of OGI VLSI and logic design courses to PSU students (on campus at PSU).

UO

MSI Graduate Internship Program

Entity	Program	Requested/ Biennium	Industry Contributions	Follow-on Requests
UO	MSI Graduate Internship Program	\$ 1.05	\$ 2.95	\$ 0.26

The goal of this proposal is to provide uniquely trained graduate students – chemists and physicists with knowledge of semiconductor device physics and processing - for Oregon's high tech industry. MSI's internship program provides the necessary background and introduces the fundamental concepts and processes used in industry to students with chemistry and physics backgrounds so they can be effective problem solvers in the industrial environment. These students are clearly in demand as demonstrated by the success of our trial internship program during the last two years.

Networking (See Undergraduate Description)

Entity	Program	Requested/ Biennium	Industry Contributions	Follow-on Requests
UofO	Networking	\$ 0.40	\$ 0.10	\$ -

OSU

Entity	Program	Requested/ Biennium	Industry Contributions	Follow-on Requests
OSU	Growth I: learning Infrastructure Support	\$ 1.00	\$ 3.20	
OSU	Growth II: Add Degrees	\$ 3.00	\$ -	\$ 1.25
	Subtotal	\$ 4.00	\$ 3.20	\$ 1.25

The College of Engineering strategic plan calls for interdisciplinary research programs and leadership in advanced technology. We have established some very successful research programs such as the Parallel Tools Consortium, micro-energy and chemical systems, hazardous and mixed waste management, cryptography, high energy density heat removal, and electronic packaging, with most of these programs being interdisciplinary in nature. We would like grow our graduate and research programs at OSU that will provide important benefits for the citizens of Oregon including:

- Professionals will have easy access to the continuing and graduate education opportunities they need to improve their skill.
- Companies will have local access to top-level research.
- Exciting new businesses (and their high paying jobs) will be attracted to Oregon.
- The research performed at OSU will stimulate the creation of local start-ups.

The requested funds will help us to significantly expand our graduate programs by increasing our number of graduate degrees by 40%, attracting new faculty and graduate students, and providing increased opportunities for research growth through interaction with Oregon companies and federal and state agencies.

Similar to our undergraduate request, the funds requested in this category would be targeted to improve the *learning infrastructure* (facilities, equipment, and operations) and to *add degrees* (new faculty and technical staff, graduate students)

PSU

Entity	Program	State Funds	Industry Contributions	Follow-on Requests
PSU				
PSU	Faculty Continuation	\$ 0.63	\$ 0.75	\$ -
PSU	Enrollment Services	\$ 0.22	\$ 0.10	\$ 0.04
PSU	Lab Improvements	\$ 0.44	\$ 0.60	\$ -
PSU	Faculty for Growth	\$ 0.79	\$ 0.79	\$ 0.54
	Subtotal	\$ 2.07	\$ 2.24	\$ 0.58

To ensure ongoing growth and vitality in Oregon's high tech industry, we must provide graduate education and research for working, part-time students and for full-time students. To do so, we must strategically invest in additional expert faculty and equipment in areas critical to the future of Oregon, such as computer networking, semiconductors, high-speed circuit design, and management of technical projects and businesses. We will also use a portion of our enrollment services request to provide advising and other support for graduate students, helping to ensure their success in our programs. Our request for lab improvement will build on existing faculty expertise to provide equipment for hands-on student education. Our request for faculty continuation will allow us to keep 5 faculty members added during the 1997-1999 and 1999-2001 biennia. Our request for faculty for growth will add 4 new faculty in areas key to Oregon's economic future. Of course, all PSU faculty are active at both the undergraduate and graduate (masters and doctoral) levels. PSU and OGI have and will continue to coordinate all faculty recruitment activities, including candidate interviews. The coordinated process ensures that, between the two institutions, program balance and critical mass in targeted programs is obtained.

SOU

Entity	Program	Requested/ Biennium	Industry Contributions	Follow-on Requests
SOU	Computer Lab	\$ 0.14	\$ 0.05	\$ 0.35

(See description in Undergraduate section)

OCECS**OMSE**

Entity	Program	Requested/ Biennium	Industry Contributions	Follow-on Requests
OCECS	OMSE	\$ 0.60	\$ 0.25	\$ -

OMSE was funded in the amount of \$2.25M for the 1997-1999 biennium and at the \$1.8M level for the 1999-2001 biennium. (For an overview of the program, please see www.omse.org.)

The rationale for funding is to subsidize low course enrollments in the highest tier of courses while the number of degree-seeking students increases, with the objective to achieve financial viability following this period of state funding.

Addendum 2 – Additional Indicators

Undergraduate Indicators and charts:

Outcome:

- More than 92% incremental* BS degrees by 2005 over '99
- Increase of 43% in total student credit hours in '05 over '99 actuals

(Table 3)

	UNDERGRADUATE	<i>OIT*</i>	<i>OSU</i>	<i>PSU</i>	<i>UofO</i>	<i>SOU</i>	<i>Total</i>
	Requested/Biennium						
Academic Year Ending Spring 1999 Actuals	<i>Student Credit Hours</i>	35529	52690	20785	13925	5876	128805
	<i>Degrees Granted</i>	148	389	157	59	34	787
Academic Year Ending Spring 2002 Forecast	<i>Student Credit Hours</i>	50475	54190	24469	20768	6400	156302
	<i>Degrees Granted</i>	240	449	184	88	60	1021
Academic Year Ending Spring 2003 Forecast	<i>Student Credit Hours</i>	57528	54940	25374	25016	6900	169758
	<i>Degrees Granted</i>	406	479	190	106	75	1256
Academic Year Ending Spring 2004 Forecast	<i>Student Credit Hours</i>	62305	55765	26313	25960	7600	177943
	<i>Degrees Granted</i>	452	512	237	110	85	1396
Academic Year Ending Spring 2005 Forecast	<i>Student Credit Hours</i>	67310	56590	27287	25960	7600	184747
	<i>Degrees Granted</i>	517	545	246	110	95	1513
% Increase '05 over '99 w/Investment	<i>Student Credit Hours</i>	89%	7%	31%	86%	29%	43%
	<i>Degrees Granted</i>	249%	40%	57%	86%	179%	92%

* Includes collaborations with OSU, WOU, EOU, SOU

GRADUATE INITIATIVE INDICATORS

Outcomes:

- Increase the number of graduate degrees awarded in engineering and computer science by **28%**.
- Expand graduate student credit hours by **31%**.

(Table 6)

\$20M Investment

	Institution/Program	<i>OGI</i>	<i>OSU</i>	<i>PSU</i>	<i>UofO</i>	<i>OCECS</i>	<i>SOU</i>	<i>Total</i>
	Requested for Biennium							
Academic Year Ending Spring 1999 Actuals	<i>Student Credit Hours</i>	4508	12870	8685	2534	600	72	29197
	<i>Degrees Granted</i>	89	164	109	21	0	5	383
Academic Year Ending Spring 2002 Forecast	<i>Student Credit Hours</i>	4718	13410	10536	3344	1400	120	33408
	<i>Degrees Granted</i>	95	170	118	15	0	3	398
Academic Year Ending Spring 2003 Forecast	<i>Student Credit Hours</i>	4808	13680	10926	3984	2000	250	35398
	<i>Degrees Granted</i>	101	177	122	35	0	8	435
Academic Year Ending Spring 2004 Forecast	<i>Student Credit Hours</i>	4938	14490	11330	25960	2000	400	58718
	<i>Degrees Granted</i>	109	192	127	40	0	10	468
Academic Year Ending Spring 2005 Forecast	<i>Student Credit Hours</i>	5024	15354	11749	3984	2000	400	38111
	<i>Degrees Granted</i>	112	208	132	40	0	12	492
% Increase '05 over '99 w/Investment	<i>Student Credit Hours</i>	11%	19%	35%	57%	N/A	456%	31%
	<i>Degrees Granted</i>	26%	27%	21%	90%		140%	28%

Faculty Hiring
(Table 9)

	\$M	FTE
New Faculty Hiring		
OGI	2.00	4.00
OIT	0.65	1.00
OSU	2.69	7.69
PSU	1.20	4.00
UO	1.50	4.00
SOU	0.24	1.88
WOU	0.08	0.67
Subtotal	8.36	23.23
Faculty Continuation		
OGI	0.33	
OSU	1.71	
PSU	1.26	
UO	0.00	
SOU	0.08	
Subtotal	3.38	
Research	1.02	
Other ed. Support	7.24	
Total Budget	20.00	