

# 2016-17 Program Assessment Report

# **Technology and Management B.A.S.**

### Mission, Objectives & Learning Outcomes

#### **Oregon Tech Mission**

Oregon Institute of Technology, an Oregon public university, offers innovative and rigorous applied degree programs in the areas of engineering, engineering technologies, health technologies, management, and the arts and sciences. To foster student and graduate success, the university provides an intimate, hands-on learning environment, focusing on application of theory to practice. Oregon Tech offers statewide educational opportunities for the emerging needs of Oregonians and provides information and technical expertise to state, national and international constituents.

#### **Core Theme 1: Applied Degree Programs**

Oregon Tech offers innovative and rigorous applied degree programs. The teaching and learning model at Oregon Tech prepares students to apply the knowledge gained in the classroom to the workplace.

#### **Core Theme 2: Student and Graduate Success**

Oregon Tech fosters student and graduate success by providing an intimate, hands-on learning environment, which focuses on application of theory to practice. The teaching and support services facilitate students' personal and academic development.

#### **Core Theme 3: Statewide Educational Opportunities**

Oregon Tech offers statewide educational opportunities for the emerging needs of Oregon's citizens. To accomplish this, Oregon Tech provides innovative and rigorous applied degree programs to students across the state of Oregon, including high-school programs, online degree programs, and partnership agreements with community colleges and universities.

#### **Core Theme 4: Public Service**

Oregon Tech will share information and technical expertise to state, national, and international constituents.

#### **Program Alignment to Oregon Tech Mission and Core Themes**

This program builds on a core of career and technical education courses, and adds management, information technology, and general education courses for a combination of technical skills with professional skills. Technology and Management provides opportunities for graduates to move into supervisory and management positions in public, private, and non-profit organizations, which all have a growing need for technical professionals who can contribute to and lead innovation in processes, strategies, products, and services.

#### **Program Mission**

The Bachelor of Applied Science in Technology and Management degree program prepares students for advancement into supervisory and managerial positions in their technical career field and for admission to graduate study in management, education and law.

#### **Program Educational Objectives**

- Fundamentals of management and supervision.
- Critical thinking necessary for managerial success.
- Communication and teamwork.
- Project management theory and applications.
- Professional ethics and social responsibility.
- Technical skills needed to lead organizations in the digital age.

#### **Program Faculty Review**

Program Student Learning Outcomes and Objectives were reviewed by program faculty during Fall Convocation Program Assessment Meeting.

Department and program outcomes were reviewed by faculty during September 2016. The department significantly reviewed and updated the core business outcomes. Faculty also simplified the department assessment assignments to better focus efforts. Two assignments - senior project and the case study will now assess all department outcomes.

#### **Showcase Learning Opportunities**

Other learning opportunities include:

- Industry internships prior to senior project experience
- Professional development skills workshops
- Hands-on community projects incorporated into program courses
- Senior project an integrated capstone experience that requires project management, research and analysis to develop a solution for an actual business problem

### **Program History & Vision**

#### **Program History**

The Bachelor of Applied Science in Technology and Management program (BAS) is a new degree program at Oregon Tech. The program began admitting students in January 2012. The BAS is offered in Klamath Falls, Wilsonville, and online.

The Bachelor of Applied Science in Technology and Management was designed specifically for students who have completed a technical Associate of Applied Science (AAS) or Associate of Science (AS) degree and are seeking career advancement in management or in their technical career fields. AAS degrees have historically been terminal associate degrees. They typically contain very few general education credits and concentrate heavily on the technical specialty to produce workforce-ready skilled technicians. Today's workplace, however, often demands broad-based general education, business acumen and managerial skills in addition to the depth of technical knowledge found in the AAS.

The BAS was designed to build on a core of 60 credits of career and technical education (CTE) courses taken as part of the AAS or AS degree, adding 65 credits of business, management, and information technology courses and 55 credits of broad-based general education courses to enable the BAS graduate to advance in the workplace or continue on to graduate school.

#### **Meeting with Advisory Board**

Program faculty held a meeting with their Advisory Board during the academic year.

#### **Advisory Board Review**

The Advisory Board reviewed the Program Mission and Objectives during the academic year.

On November 2, 2016, the advisory board met with program faculty. The 2015-16 department and program assessment results were reviewed with the board. Overall, the results showed improvement in several areas of senior project. While last year we had six department level assessments, as a group we found this amount of data was not helpful in determining how to make improvements. Therefore, beginning in 2016-17, we will be simplifying our plan and only assessing senior project and the strategic case study at the department level. The board supported this change. Additionally, the faculty shared the results from the business core update. The board supported proposed changes of the business core to maintain skills and knowledge that today's employers are seeking.

#### **Program Enrollment**

The Technology and Management degree is offered at the Klamath Falls, Wilsonville and online. Enrollment for the 2016-17 year was 46 students.

Attachment 1 Enrollment 5 Year History by Major

#### **Program Graduates**

Eight (8) students graduated with a degree in Technology and Management in June of 2016.

Attachment 2\_Graduates\_10\_Year\_History\_by\_Major

#### **Employment Rates and Salaries**

Based on data from the last three years, 88% are employed (employers include Asante, New Horizon, Pioneer Pacific College/Western Governors University, and Neal, Inc.) and 0% have continued their education. Reported starting salaries average \$40,000.

Attachment 3\_Grad\_Data\_First\_Destination\_3\_Year\_History\_by\_Major

#### Pass Rates on Board and Licensure Exam

N/A

#### **Results of Board or Licensure Exam**

N/A

#### **Other Program Assessment Data**

N/A

#### **Desired Data**

N/A

### **Closing the Loop**

Describe any actions taken and re-assessment done during this academic year in response to assessment findings from prior academic years.

Program Faculty implemented actions during the academic year based on assessment findings from previous assessment cycles.

We have gathered assessment data following changes that indicates improvement in student learning.

We have gathered assessment data following changes that indicated further action is needed.

#### **Changes Implemented**

Case Study & Senior Project: During the 2016-17 academic year, the department streamlined assessment efforts focusing on the BUS478 Strategic Management Case Study and Senior Project. This focused assessment effort allowed faculty to work on areas that needed improvement. For example, students had difficulty analyzing research to develop solutions in senior project. Therefore, faculty were able to concentrate on these areas. In addition, students were required to focus project using skills and knowledge learned in major.

Student Exit Survey: The main goal of the senior exit survey is to assess confidence and satisfaction rates of the program. The previous year's survey, students are asked how the management department has prepared them regarding each specific SLOs and PSLOs. This year we changed the question to ask students to rate their proficiency regarding with each specific SLO and PSLO. This question focuses more on students' ability rather than their satisfaction with faculty. Note that separate questions have been included regarding faculty and advising.

Program Student Learning Outcomes: No changes during 2016-17.

#### **Assessment Findings**

Case Study: In 2015-16, the Case Study assignment only assessed department outcome 1, 2, and 5. The results for 15-16 had the department meeting measurement goal of 80%. During the 2016-17 academic year, the case study assignment was modified to encompass all department-level outcomes. The department met goals in outcomes 1 and 4, and did not meet in outcomes 2, 3, and 5. N-values remain low, however, data suggests students are demonstrating proficiency. No changes.

Senior Project: In 2015-16, faculty teaching senior project adopted a common project management approach using similar materials and process. During 16-17 academic year, the senior project faculty again met to discuss process, successes, and challenges. The faculty agreed that the common structured approach was yielding better results. The department assessment results for senior project continue to improve in all areas. In 2016-17, in the three areas that results were not met, there was an improvement from the prior years.

Student Exit Survey: Despite the survey redesign, the results of the student exit survey have not changed from previous years. Overall students feel confident of their learning.

Program Learning Objectives: Currently the PSLO is operationally focused, although not all students follow this "track" when it comes to senior project. It also seems this PSLO is regularly reevaluated and changed in the past as faculty have struggled to clearly articulate what all BAS students should know upon graduation. For 2017-18, the suggestion is to adopt one of the department's SLOs as the PSLO: Apply knowledge of business concepts and functions in an integrated manner. This SLO is general enough it should apply to all students. Then, as more students enroll in the program we could identify sub-outcomes as clusters emerge.

### **Department Student Learning Outcomes Assessment Cycle**

DEPARTMENT STUDENT LEARNING OUTCOMES Yearly Cycle Management Department	2016-17
OIT-MGT 2016-17.1 Communicate the major concepts in the functional	BUS 478
areas of accounting, marketing, finance, information technology, and	BUS 497
management.	Student Exit Survey
OIT-MGT 2016-17.2 Describe the legal, social, ethical, and economic	BUS 478
environments of business in a global context.	BUS 497
	Student Exit Survey
OIT-MGT 2016-17.3 Solve organization problems, individually and/or in	BUS 478
teams, using quantitative, qualitative, and technology-enhanced	BUS 497
approaches.	Student Exit Survey
OIT-MGT 2016-17.4 Demonstrate professional communication and	BUS 478
behavior.	BUS 497
	Student Exit Survey
OIT-MGT 2016-17.5 Apply knowledge of business concepts and functions in	BUS 478
an integrated manner.	BUS 497
	Student Exit Survey

# **Program Student Learning Outcomes Assessment Cycle**

PROGRAM STUDENT LEARNING OUTCOMES Yearly Cycle Technology and Management B.A.S.	2016-17
OIT-BTM 2016-17.1 Apply knowledge of approaches to operational performance improvement.	BUS 497 Student Exit Survey

### **Assessment Map & Measure**

- F Foundation introduction of the learning outcome, typically at the lower-division level,
- P Practicing reinforcement and elaboration of the learning outcome, or
- C Capstone demonstration of the learning outcome at the target level for the degree

For each outcome, programs should identify at least 2 direct measures (student work that provides evidence of their knowledge and skills), and 1 indirect measure (student self-assessment of their knowledge and skills) for each outcome.

For every program, data from the Student Exit Survey will be an indirect measure at the capstone level.

OIT-MGT 2016-17.1 Communicate the major concepts in the functional areas of accounting,	
marketing, finance, information technology, and management.	
Course/Event	BUS 478
Legend	C – Capstone
<b>Assessment Measure</b>	Direct – Case Analysis
Criterion	80% of students score a 3 or 4 on each learning outcome-related
	performance criteria (using a 1-4 proficiency scale).
Course/Event	BUS 497
Legend	C – Capstone
<b>Assessment Measure</b>	Direct – Senior Project
Criterion	80% of students score a 3 or 4 on each learning outcome-related
	performance criteria (using a 1-4 proficiency scale).
Course/Event	Student Exit Survey
Legend	C – Capstone
<b>Assessment Measure</b>	Indirect – Student Exit Survey
Criterion	80% of graduates indicate a 4, 5, or 6 rating (scale 1-6).

OIT-MGT 2016-17.2 Describe the legal, social, ethical, and economic environments of business in a global context.	
Course/Event	BUS 478
Legend	C – Capstone
<b>Assessment Measure</b>	Direct – Case Analysis
Criterion	80% of students score a 3 or 4 on each learning outcome-related
	performance criteria (using a 1-4 proficiency scale).
Course/Event	BUS 497
Legend	C – Capstone
<b>Assessment Measure</b>	Direct – Senior Project
Criterion	80% of students score a 3 or 4 on each learning outcome-related performance criteria (using a 1-4 proficiency scale).

Course/Event	Student Exit Survey
Legend	C – Capstone
<b>Assessment Measure</b>	Indirect – Student Exit Survey
Criterion	80% of graduates indicate a 4, 5, or 6 rating (scale 1-6).

OIT-MGT 2016-17.3 Solve organization problems, individually and/or in teams, using quantitative,		
qualitative, and technology-enhanced approaches.		
Course/Event	BUS 478	
Legend	C – Capstone	
<b>Assessment Measure</b>	Direct – Case Analysis	
Criterion	80% of students score a 3 or 4 on each learning outcome-related	
	performance criteria (using a 1-4 proficiency scale).	
Course/Event	BUS 497	
Legend	C – Capstone	
<b>Assessment Measure</b>	Direct – Senior Project	
Criterion	80% of students score a 3 or 4 on each learning outcome-related	
	performance criteria (using a 1-4 proficiency scale).	
Course/Event	Student Exit Survey	
Legend	C – Capstone	
<b>Assessment Measure</b>	Indirect – Student Exit Survey	
Criterion	80% of graduates indicate a 4, 5, or 6 rating (scale 1-6).	

OIT-MGT 2016-17.4 Demonstrate professional communication and behavior.	
Course/Event	BUS 478
Legend	C – Capstone
<b>Assessment Measure</b>	Direct – Case Analysis
Criterion	80% of students score a 3 or 4 on each learning outcome-related
	performance criteria (using a 1-4 proficiency scale).
Course/Event	BUS 497
Legend	C – Capstone
<b>Assessment Measure</b>	Direct – Senior Project
Criterion	80% of students score a 3 or 4 on each learning outcome-related
	performance criteria (using a 1-4 proficiency scale).
Course/Event	Student Exit Survey
Legend	C – Capstone
<b>Assessment Measure</b>	Indirect – Student Exit Survey
Criterion	80% of graduates indicate a 4, 5, or 6 rating (scale 1-6).

OIT-MGT 2016-17.5 Apply knowledge of business concepts and functions in an integrated manner.	
Course/Event	BUS 478
Legend	C – Capstone
<b>Assessment Measure</b>	Direct – Case Analysis
Criterion	80% of students score a 3 or 4 on each learning outcome-related performance criteria (using a 1-4 proficiency scale).
Course/Event	BUS 497
Legend	C – Capstone
<b>Assessment Measure</b>	Direct – Senior Project
Criterion	80% of students score a 3 or 4 on each learning outcome-related performance criteria (using a 1-4 proficiency scale).
Course/Event	Student Exit Survey
Legend	C – Capstone
<b>Assessment Measure</b>	Indirect – Student Exit Survey
Criterion	80% of graduates indicate a 4, 5, or 6 rating (scale 1-6).

OIT-BTM 2016-17.2 Apply knowledge of approaches to operational performance improvement.	
Course/Event	BUS 497
Legend	C – Capstone
<b>Assessment Measure</b>	Direct – Senior Project
Criterion	80% of students score a 3 or 4 on each learning-outcome-related
	performance criteria (using a 1-4 proficiency scale).
Course/Event	Student Exit Survey
Legend	C – Capstone
<b>Assessment Measure</b>	Indirect – Student Exit Survey
Criterion	80% of graduates indicate a 4, 5, or 6 rating (scale 1-6).

# **Analysis of Results**

OIT-MGT 2016-17.1 Communicate the major concepts in the functional areas of accounting, marketing, finance, information technology, and management.	
Criterion	Met
Summary	Case Study: Met 100% Senior Project: Met 100% Exit Survey: Met 80%
Improvement Narrative	N/A

OIT-MGT 2016-17.2 Describe the legal, social, ethical, and economic environments of business in a	
global context.	
Criterion	Met
Summary	Case Study: Met 100% Senior Project: Not Met 50% Exit Survey: Met 90%

Improvement Narrative	N/A
•	, ,

	OIT-MGT 2016-17.3 Solve organization problems, individually and/or in teams, using quantitative, qualitative, and technology-enhanced approaches.								
Criterion	Not Met								
Summary	Case Study: Not Met 33% Senior Project: Met 50% Exit Survey: Met 96%								
Improvement Narrative	Assessment Method Change: N-values remain low. Data suggests students are demonstrating proficiency. Since the development of the degree, there has been difficulty in determining the correct assessment focus. For 2017-18, will change PSLO to Apply knowledge of business concepts and functions in an integrated manner								

OIT-MGT 2016-17.4 Demo	nstrate professional communication and behavior.
Criterion	Met
Summary	Case Study: Met 100% Senior Project: Not Met 75% Exit Survey: Met 96%
Improvement Narrative	N/A

OIT-MGT 2016-17.5 Apply	OIT-MGT 2016-17.5 Apply knowledge of business concepts and functions in an integrated manner.								
Criterion	Not Met								
Summary	Case Study: Not Met 66% Senior Project: Not Met 50% Exit Survey: Met 94%								
Improvement Narrative	Assessment Method Change: N-values remain low. Data suggests students are demonstrating proficiency. Since the development of the degree, there has been difficulty in determining the correct assessment focus. For 2017-18, will change PSLO to Apply knowledge of business concepts and functions in an integrated manner								

OIT-BTM 2016-17.2 Apply	knowledge of approaches to operational performance improvement.						
<b>Criterion</b> Met							
Summary	Senior Project: Met 100% Exit Survey: Met 100%						
Improvement Narrative	N/A						

### References

Program Assessment Coordinator: Maureen Sevigny, Professor, Management

Department Assessment Coordinator: Sharon Beaudry, Assistant Professor, Management

Office of Academic Excellence



The following data represents majors declared by student as of Fall 4th week. Students with multiple/dual majors have been reported under each major in which they enrolled; therefore the student headcount will be duplicated. A small number of students that declared a third major have now been included in this report. Data reported is combined for all levels and all locations.

Some programs may have had name changes					-
Description  ARA Course Series	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016
ABA Course Series Accounting Certificate	0	0	0	0	1
Allied Health			-		1
	0 11	5	3	2	3
Allied Health Management Applied Behavior Analysis			_	10	17
Applied Benavior Analysis Applied Mathematics	0 41	0 38	0 47	42	33
Applied Mathematics Applied Psychology	146	149	122	96	110
, , ,		_			110
Automat, Robot, & Cntrl Engr	0 15	0	0	0	1
Biology	136	8 150	150	1 138	151
Biology-Health Sciences	130	121	150	138	118
Civil Engineering	-		110		118
Clinical Lab Science-Earlyadm	6	10	35	22	0
Clinical Laboratory Science	62	85	94	95	2
Communication Studies	55	42	39	47	40
Computer Engineering Tech	82	82	81	86	63
Dental Hygiene	226	240	211	221	202
Diagnostic Medical Sonography	86	104	95	102	112
Dispute Resolution Certificate	1	1	2	4	2
Echocardiography	121	119	123	122	128
Electrical Engineering	76	120	146	164	197
Electronics Engineering Tech	67	58	51	37	32
Embedded Systems Eng Tech	24	25	32	35	57
Emergency Medical Services Mgt	0	0	17	20	34
EMT - Paramedic	29	30	29	28	28
Environmental Sciences	49	49	51	48	42
General Studies	495	736	632	1,031	1,414
Geomatics	1	0	0	0	0
Geomatics-option in GIS	13	14	10	10	7
Geomatics-option in Surveying	49	39	26	31	30
Health Care Mgmt-Admin Mgmt	0	10	14	19	18
Health Care Mgmt-Clinical Mgmt	0	4	10	11	25
Health Care Mgmt-Rad Science	0	3	6	12	12
Health Informatics	0	0	0	20	38
Health Sciences	1	1	0	1	2
Information Technology	0	0	0	56	114
IT Accounting Option	8	4	2	1	1
IT Applications Dev Opt	91	75	71	48	20
IT Bus/Systems Analysis Opt	58	59	69	51	28
IT Health Informatics Opt	54	68	59	32	17
Magnetic Resonance Imagng Spec	0	0	0	0	4
Manufacturing Engineering Tech	129	99	109	107	101
Marriage and Family Therapy	0	0	0	0	10
Mechanical Engineering	208	303	331	323	354
Mechanical Engineering Tech	145	112	121	121	104
Medical Lab Science-Earlyadm	0	0	0	0	17
Medical Laboratory Science	0	0	0	0	86
Mgmt Info Sys/Mgmt Acc Option	1	0	0	0	0
Mgmt/Accounting Option	32	38	35	32	19
Mgmt/Marketing Option	34	34	36	34	37
Mgmt/Small Bus Mgmt Option	54	43	38	37	33
MIT Applicant	0	0	1	2	0
Nuclear Medicine Technology	47	51	48	48	49
Nursing	50	49	52	61	69
Operations Management	61	66	65	69	70
Optical Engineering	01	00	3	3	2
Picture Archive/Comm Sys Spec	0	0	1	2	2
Polysomnographic Technology	19	13	6	12	5
Population Health Management	0	0	3	24	31
Pre-Clinical Lab Science	0	8	1	20	31 1
Pre-Dental Hygiene	62	65	35	37	48
Pre-Medical Imaging Tech	273	287	253	237	226
Pre-Medical Imaging Tech Pre-Medical Lab Science	0	0	253	0	27
	56		53	69	78
Pre-Nursing Pre-Paramedic Education		3		7	
	0 111	0	3		0
Pre-Renewable Energy Eng	111	12	0 8	0 11	9
Pre-Respiratory Care	11 164	163			
Radiologic Science Renewable Energy Engineering	110		154	160 180	152 166
<u> </u>		206	203		166
Respiratory Care	85	84	88	103	117
Sleep Health-Polysom Tech Opt	0	0	300	6	17
Software Engineering Tech	260	268	289	309	285
Spec in Entrepreneur/Small Bus	0	0	0	1	2
Specialization in Accounting	0	0	0	2	2
Specialization in Marketing	0	0	1	1	1
Specialization Travel/Tourism	0	1	0	0	0
· · · · · · · · · · · · · · · · · · ·	0	0	2	3	0
System Engr & Technical Mgmt			• • •		16
Technology and Management	16	30	43	46	
Technology and Management Vascular Technology	88	95	80	93	46 98
Technology and Management		95			

declared	
5 Year	5 Year
Difference	% Change
0 1	-
3	_
-10	-90.9%
17	-
-8	-19.5%
-36 1	-24.7%
-15	-100.0%
15	11.0%
-9	-7.1%
-6	-100.0%
-60 -15	-96.8% -27.3%
-13	-27.3%
-24	-10.6%
26	30.2%
1	100.0%
7	5.8%
121 -35	159.2% -52.2%
33	137.5%
34	-
-1	-3.4%
-7 010	-14.3%
919	185.7% -100.0%
-6	-46.2%
-19	-38.8%
18	-
25	-
12 38	
1	100.0%
114	-
-7	-87.5%
-71	-78.0%
-30 -37	-51.7% -68.5%
4	-00.576
-28	-21.7%
10	-
146	70.2%
-41 17	-28.3%
86	-
-1	-100.0%
-13	-40.6%
3	8.8%
-21 0	-38.9%
2	4.3%
19	38.0%
9	14.8%
3	-
-14	-73.7%
31	-
2	-
-14	-22.6%
-47 27	-17.2%
27	39.3%
0	-
-111	-100.0%
-2 12	-18.2%
-12 56	-7.3% 50.9%
32	37.6%
17	-
25	9.6%
2	-
2 1	-
0	-
0	
30	187.5%
10	11.4%
1,225 1,231	29.5% 30.8%
1,231	30.070



10 Year History By Major and Degree Type As of September 5, 2016

# **Specializations**

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Picture Archive/Comm Sys Spec	-	-	-	-	-	-	4	4	3	-
Specialization in Accounting	-	-	-	-	-	-	-	1	-	-
Specialization in Marketing	-	-	-	-	-	-	-	2	-	-
Total	0	0	0	0	0	0	4	7	3	0

### **Certificates**

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Accounting Certificate	-	-	-	-	1	-	-	-	-	-
Dispute Resolution Certificate	1	2	1	2	4	1	6	11	1	2
Marketing Certificate	-	-	-	-	-	-	-	-	-	-
Polysomnographic Technology	-	-	4	14	13	11	8	6	3	9
Total	1	2	5	16	17	12	14	17	4	11

# **Associates**

7 1000010100										
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Associate of Arts	13	8	2	5	-	1	-	-	1	1
Computer Engineering Tech	7	5	3	2	3	-	5	7	6	6
Dental Hygiene	25	26	22	25	18	27	18	23	21	9
Electronics Engineering Tech	3	1	2	1	-	-	-	-	-	-
EMT - Paramedic	19	21	22	25	27	17	28	26	26	29
Office Systems Technology	-	2	2	-	-	-	-	-	-	-
Polysomnographic Technology	-	-	1	2	3	5	6	2	4	-
Respiratory Care	23	16	15	17	-	-	-	-	-	-
Sleep Health-Polysom Tech Opt	-	-	-	-	-	-	-	-	-	3
Software Engineering Tech	7	2	3	2	2	-	-	2	9	2
Total	97	81	72	79	53	50	57	60	67	50

### **Bachelors**

Ducificiois										
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Allied Health Management	-	-	-	1	2	4	3	2	1	-
Applied Environmental Science	1	-	-	-	-	-	-	-	-	-
Applied Mathematics	-	-	7	1	5	4	7	4	4	5
Applied Psychology	46	42	37	30	36	38	30	40	37	31
Biology	10	6	16	14	11	11	3	4	1	2
Biology-Health Sciences	-	-	-	-	-	-	10	14	20	18
Civil Engineering	23	23	29	28	20	14	23	17	15	25
Clinical Laboratory Science	23	24	24	22	22	35	27	34	49	46
Communication Studies	13	13	9	10	13	8	19	13	4	8
Computer Engineering Tech	15	7	14	8	13	3	4	3	3	3
Dental Hygiene	35	38	45	55	49	54	51	76	62	65
Diagnostic Medical Sonography	21	24	21	27	29	24	19	31	25	24
Echocardiography	6	4	16	9	21	32	31	32	29	35
Electrical Engineering	-	-	-	6	11	9	11	17	17	26
Electronics Engineering Tech	18	17	13	10	18	16	11	10	10	13

# **Bachelors**

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Embedded Systems Eng Tech	-	-	-	1	2	2	4	1	5	3
Emergency Medical Services Mgt	-	-	-	-	-	-	-	-	-	1
Environmental Sciences	1	1	3	1	5	5	4	5	11	14
Geomatics	10	8	5	5	1	-	-	-	-	-
Geomatics-option in GIS	-	-	2	1	1	3	3	5	1	2
Geomatics-option in Surveying	-	-	1	11	13	14	10	13	1	12
Health Care Mgmt-Admin Mgmt	-	-	-	-	-	-	-	-	1	2
Health Care Mgmt-Clinical Mgmt	-	-	-	-	-	-	-	-	1	-
Health Sciences	1	3	2	2	2	6	1	1	-	-
Industrial Management	-	-	-	1	-	-	-	-	-	-
Information Technology	4	4	1	2	-	1	_	-	-	-
IT Accounting Option	-	1	2	1	1	2	1	2	-	-
IT Applications Dev Opt	8	5	13	5	6	8	21	12	8	11
IT Bus/Systems Analysis Opt	1	1	4	10	12	6	12	14	13	8
IT Health Informatics Opt	-	-	-	-	2	4	9	6	14	7
Management Information System	12	2	8	3	-	2	-	-	-	-
Manufacturing Engineering Tech	30	15	16	18	18	9	13	5	11	12
Mechanical Engineering	3	3	17	12	11	19	14	27	23	45
Mechanical Engineering Tech	31	19	31	23	24	19	24	18	17	21
Mgmt Info Sys/Mgmt Acc Option	-	3	_	-	-	-	-	-	-	-
Mgmt/Accounting Option	8	4	3	8	4	9	9	12	5	8
Mgmt/Marketing Option	9	7	5	5	7	8	7	4	7	7
Mgmt/Small Bus Mgmt Option	9	11	11	18	8	6	8	12	4	7
Nuclear Medicine Technology	18	18	16	15	16	16	15	14	14	15
Operations Management	8	6	3	15	7	14	16	13	19	18
Optical Engineering	-	-	-	-	-	-	-	-	1	1
Population Health Management	-	-	-	-	-	-	-	-	-	5
Radiologic Science	47	51	50	53	51	50	48	55	45	56
Renewable Energy Engineering	-	-	6	9	29	35	60	35	29	29
Renewable Energy Systems	-	-	1	-	-	-	_	-	-	-
Respiratory Care	5	8	6	7	10	21	21	21	27	
Software Engineering Tech	44	36	27	27	31	29	41	31	35	47
System Engr & Technical Mgmt	-	-	-	-	-	-	-	-	-	3
Technology and Management	-	-	-	-	-	-	1	1	11	8
Ultrasound/Diag Med Sono Opt	1	-	-	_	_	-	_	_	-	-
Ultrasound/Vascular Option	1	-	-	-	-	-	-	-	-	-
Vascular Technology	30	30	26	23	23	25	21	28	19	24
Total	492	434	490	497	534	565	612	632	599	689

# Masters

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Civil Engineering	-	1	-	-	-	-	1	1	2	6
Manufacturing Engineering Tech	3	4	7	2	6	8	12	4	8	9
Renewable Energy Engineering	-	-	-	-	-	-	-	1	11	9
Total	3	4	7	2	6	8	12	5	21	24

# **Grand Total**

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Grand Total	593	521	574	594	610	635	699	721	694	774

# Attachment 3\_Grad\_Data\_First\_Destination\_3\_Year\_History\_by\_Major

					/_ /	_ ,						
Oregon Tech Graduate Outco	ome Da	ata										
a=2013/2014/2015 combined	% Employed		% Continuing Ed		% Looking for Work		% Not Looking		Success Rate		Median Salary	
b=2014/2015/2016 combined	a	b	а	b	a	b	а	b	а	b	a	b
% among those reporting outcomes	83.3	87.6	6.1	6.7	9.4	4.9	1.2	0.8	90.6	95.1	\$ 54,000	\$ 56,000
Biology-Health Sciences	36	38	60	62	4	0	0	0	96	100	\$ 20,750	\$ 33,000
Civil Engineering	83	92	11	8	6	0	0	0	94	100	\$ 50,000	\$ 51,540
Communication Studies	60	67	13	11	27	22	0	0	73	78	\$ 27,000	\$ 28,500
Computer Engineering Technology	89	93	0	0	0	0	11	7	100	100	\$ 63,000	\$ 64,000
Dental Hygiene	86	96	4	1	9	2	1	1	91	98	\$ 53,000	\$ 57,500
Diagnostic Medical Sonography	97	98	3	2	0	0	0	0	100	100	\$ 60,000	\$ 60,868
Echocardiography	95	93	0	3	5	3	0	0	95	97	\$ 60,500	\$ 64,000
Electrical Engineering	87	83	0	10	13	7	0	0	87	93	\$ 60,000	\$ 60,000
Electronics Engineering Technology	73	82	7	5	20	14	0	0	80	86	\$ 54,250	\$ 66,750
<b>Embedded Systems Engineering Tech</b>	80	83	0	17	20	0	0	0	80	100	\$ 58,250	\$ 60,000
EMT/Paramedic	100	100	0	0	0	0	0	0	100	100	\$ 48,000	\$ 52,000
Environmental Sciences	67	76	11	18	22	6	0	0	78	94	\$ 39,800	\$ 40,000
Geomatics: GIS	100	100	0	0	0	0	0	0	100	100	\$ 42,000	\$ 42,000
Geomatics: Surveying	69	64	0	9	31	27	0	0	69	77	\$ 40,500	\$ 43,000
Health Care Management	75	80	25	20	0	0	0	0	100	100	\$ 52,000	na
Health Informatics	75	79	10	11	15	11	0	0	85	89	\$ 53,000	\$ 52,000
Information Technology	84	88	0	2	16	10	0	0	84	90	\$ 55,000	\$ 55,000
Management: Accounting	78	83	6	6	17	11	0	0	83	89	\$ 32,000	\$ 32,250
Management: SmBus/Entrepreneurs	77	87	15	13	8	0	0	0	92	100	\$ 33,000	\$ 40,900
Management: Marketing	82	93	0	0	18	7	0	0	82	93	\$ 39,250	\$ 48,500
Manufacturing Engineering Technolog	77	85	5	4	13	11	0	0	87	89	\$ 62,500	\$ 60,000
Mathematics, Applied	60	71	20	29	0	0	20	0	100	100	na	na
Mechanical Engineering	71	82	12	9	10	5	7	4	90	95	\$ 60,000	\$ 60,000
Mechanical Engineering Technology	86	100	7	0	7	0	0	0	93	100	\$ 60,000	\$ 62,500
Medical Laboratory Science	100	100	0	0	0	0	0	0	100	100	\$ 53,750	\$ 55,000
Nuclear Medicine Technology	87	86	0	3	13	11	0	0	87	89	\$ 57,000	\$ 57,846
Nursing												
Operations Management	83	83	11	14	6	3	0	0	94	97	\$ 63,000	\$ 63,000
Polysomnographic Technology	83	100	0	0	17	0	0	0	83	100	\$ 50,000	\$ 40,500
Population Health Management	na	75	na	25	na	0	na	0	na	100	na	\$ 42,000
Psychology, Applied	54	66	24	26	15	5	6	3	85	95	\$ 30,000	\$ 30,000
Radiologic Science	92	97	1	0	6	3	1	1	94	97	\$ 47,000	\$ 50,000
Renewable Energy Engineering	76	83	6	8	18	9	0	0	82	91	\$ 57,000	\$ 56,500
Respiratory Care	97	98	0	0	3	2	0	0	97	98	\$ 56,000	\$ 56,000
Software Engineering Technology	93	91	0	0	3	7	3	3	97	93	\$ 62,250	\$ 66,750
Technology and Management	100	88	0	0	0	12	0	0	100	88	na	na
Vascular Technology	92	91	0	0	8	9	0	0	92	91	\$ 64,602	\$ 62,000

#### **Additional Notes:**

Numbers may not add to 100 due to rounding

na=not reported, or not available due to small sample size

METHODOLOGY

Sample Frame 2016: 781 degrees awarded per FAST

Survey Response Rate: 49% Total Knowledge Rate 2016: 75%

Sources: Data collected from a variety of sources. Below, for 2016, in chronological order:

Grad Fair paper survey

Faculty senior exit survey

Career Services survey

Career Services followup with non-respondents

Faculty information from their contact with students

LinkedIn Profiles

Salaries of \$2,500 and below and \$250,000 and above were deleted.

Students with dual majors are included under each major

Known Outcomes 2016: 587

Known Outcomes 2013/2014/2015 combined N=1008

Known Outcomes 2014/2015/2016 combined N=1244