2016-17 Program Assessment Report

Operations Management B.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
Oregon Tech's Management programs are designed to develop business professionals by combining a strong business core with hands-on projects. The Operations Management program provides students with a strong managerial and applied problem-solving background. Industry experienced instructors work closely in small, focused classes that prepare students to address issues related to productivity, management, quality assurance, and operations logistics.

Program Mission
The Operations Management degree, a Bachelor of Science program, prepares students for leadership positions in the production and service industries.

Program Educational Objectives

- The Operations Management degree program prepares students for graduate school programs such as the MBA or the MIM.
- The Operations Management degree program prepares students for supervisory positions in organizations, including for-profit organizations, non-profit organizations, and government organizations.
- The Operations Management degree program prepares students for M.A.T. programs and future careers in high school education.
- The Operations Management degree program develops skills in problem solving, project management, communication, and managing effectively in team-based work environments, and prepares students for employment within a wide variety of service and product industries.

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. During the 2016-17 academic year, the department significantly reviewed the core business outcomes. Additionally, faculty also simplified department assessment assignments to better focus efforts. Two assignments - senior project and the case study - will now assess all department outcomes. No changes were made in the program learning outcomes.

Showcase Learning Opportunities
Other learning opportunities include:

- Students can earn a green belt certification in Six Sigma and lean management methods
- 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 Operations Management degree at Oregon Tech has undergone several iterations in recent decades. Oregon Tech originally offered an Industrial Management degree; this degree evolved in the mid-1990s into an Industrial Engineering degree which was accredited by ABET. Oregon Tech hoped to increase enrollment with these changes. Enrollment, however, dropped dramatically as students were not interested in an engineering emphasis. In 2002 the curriculum was revised, the ABET accreditation was dropped, and the degree name was changed to Operations Management. Today, the Operations Management program is transfer- friendly, preparing students for leadership positions in the production

and service industries. Curriculum enhancements for the 2014-2015 academic year were rolled out in the 2015-2016 academic year include the new course sequence that offers courses in Materials Management, Logistics Management and Quality Management. This sequence brings additional depth to the Operations Management degree program.

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 for 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 Operations Management degree is offered at the Klamath Falls, Wilsonville and Online. Enrollment for the 2016-17 year was 70 students. This represents a 15% increase in the last five years.

Attachment 1_Enrollment_5_Year_History_by_Major

Program Graduates
Eighteen (18) students graduated with a degree in OM in June of 2016. The graduation is consistent with issues noted in program enrollment.

Attachment 2_Graduates_10_Year_History_by_Major

Employment Rates and Salaries
Based on data from the last three years, 83% are employed (employers include Intel, Salesforce, Boeing, Alaska Industrial Hardware, Blazer Industries) and 14% have continued their education. Reported starting salaries average $63,000.

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 area 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 made to outcomes.

Assessment Findings

Case Study

- Identify which facet(s) of case study may be dragging down the assessment score.
- Ensure senior project proposals address these assessments criteria for case study criteria at the outset of the senior project

Senior Project

- Ensure alignment of project objective and conclusion across the life the project
- Institute regular tollgate or milestone meetings over the life of the project to ensure project progress and therefore more proficient project summary and conclusion as the close of the project.

Fundamental Concepts of Operations Management

- Ensure senior projects capture elements of operations (capacity planning, inventory management, logistics, etc.) in the project charter, at the outset of the project.

Lean Management

- These results are a bit too good. All students used the same course project data, perhaps resulting in over-collaboration. Next assessment cycle students will all receive different and unique data for their course project.

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

Program Student Learning Outcomes Assessment Cycle

PROGRAM STUDENT LEARNING OUTCOMES **Yearly Cycle** **Operations Management B.S.**	**2016-17**
OIT-BOMG 2016-17.1 (2) Apply knowledge of fundamental concepts of operations management.	BUS 497 Student Exit Survey
OIT-BOMG 2016-17.2 (2) Apply knowledge of approaches to operational performance improvement.	BUS 497 MGT 462 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
Assessment Measure	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
Assessment Measure	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
Assessment Measure	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
Assessment Measure	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
Assessment Measure	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
Assessment Measure	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
Assessment Measure	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
Assessment Measure	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
Assessment Measure	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
Assessment Measure	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
Assessment Measure	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
Assessment Measure	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
Assessment Measure	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
Assessment Measure	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
Assessment Measure	Indirect – Student Exit Survey
Criterion	80% of graduates indicate a 4, 5, or 6 rating (scale 1-6).

OIT-BOMG 2016-17.1 (2) Apply knowledge of fundamental concepts of operations management.	
Course/Event	BUS 497
Legend	C – Capstone
Assessment Measure	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
Assessment Measure	Indirect – Student Exit Survey
Criterion	80% of graduates indicate a 4, 5, or 6 rating (scale 1-6).

OIT-BOMG 2016-17.2 (2) Apply knowledge of fundamental concepts of operations management.	
Course/Event	BUS 497
Legend	C – Capstone
Assessment Measure	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	MGT 462
Legend	C – Capstone
Assessment Measure	Direct – Project (Individual)
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
Assessment Measure	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	Not Met
Summary	Case Study: Not Met 64% Senior Project: Met 87% Exit Survey: 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	Not Met
Summary	Case Study: Not Met 71% Senior Project: Not Met 75% Exit Survey: 90%
Improvement Narrative	*Curriculum Change:* Ensure alignment of project objective and conclusion across the life the project. Institute regular tollgate or milestone meetings over the life of the project to ensure project progress and therefore more proficient project summary and conclusion as the close of the project.

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 50% Senior Project: Not Met 75% Exit Survey: Met 96%
Improvement Narrative	*Curriculum Change:* Ensure alignment of project objective and conclusion across the life the project. Institute regular tollgate or milestone meetings over the life of the project to ensure project progress and therefore more proficient project summary and conclusion as the close of the project.

OIT-MGT 2016-17.4 Demonstrate professional communication and behavior.	
Criterion	Not Met
Summary	Case Study: Not Met 78% Student Project: Not Met 75% Exit Survey: 94%
Improvement Narrative	*Curriculum Change:* Ensure alignment of project objective and conclusion across the life the project. Institute regular tollgate or milestone meetings over the life of the project to ensure project progress and therefore more proficient project summary and conclusion as the close of the project.

OIT-MGT 2016-17.5 Apply knowledge of business concepts and functions in an integrated manner.	
Criterion	Not Met
Summary	Case Study: Not Met 78% Student Project: Not Met 62% Exit Survey: Met 94%
Improvement Narrative	*Curriculum Change:* Ensure alignment of project objective and conclusion across the life the project. Institute regular tollgate or milestone meetings over the life of the project to ensure project progress and therefore more proficient project summary and conclusion as the close of the project.

OIT-BOMG 2016-17.1 (2) Apply knowledge of fundamental concepts of operations management.	
Criterion	Not Met
Summary	Senior Project: Not Met 75% Exit Survey: Met 100%
Improvement Narrative	*Curriculum Change:* Ensure alignment of project objective and conclusion across the life the project. Institute regular tollgate or milestone meetings over the life of the project to ensure project progress and therefore more proficient project summary and conclusion as the close of the project.

OIT-BOMG 2016-17.2 (2) Apply knowledge of approaches to operational performance improvement.	
Criterion	Met
Summary	Lean Project: 82% Senior Project: Not Met 75% Exit Survey: Met 100%
Improvement Narrative	N/A

References

Program Assessment Coordinator: Pat Schaeffer, Associate Professor, Management

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Office of Academic Excellence

Oregon TECH

Majors History, Fall 4th Week
November 30, 2016

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 such as CLS and have been reported as they were (historically).

Description	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016	5 Year Difference	5 Year % Change
ABA Course Series	0	0	3	0	0	0	-
Accounting Certificate	0	0	0	0	1	1	-
Allied Health	0	0	0	0	3	3	-
Allied Health Management	11	5	3	2	1	-10	-90.9%
Applied Behavior Analysis	0	0	0	10	17	17	-
Applied Mathematics	41	38	47	42	33	-8	-19.5%
Applied Psychology	146	149	122	96	110	-36	-24.7%
Automat, Robot, & Cntrl Engr	0	0	0	0	1	1	-
Biology	15	8	1	1	0	-15	-100.0%
Biology-Health Sciences	136	150	150	138	151	15	11.0%
Civil Engineering	127	121	110	120	118	-9	-7.1%
Clinical Lab Science-Earlyadm	6	10	35	22	0	-6	-100.0%
Clinical Laboratory Science	62	85	94	95	2	-60	-96.8%
Communication Studies	55	42	39	47	40	-15	-27.3%
Computer Engineering Tech	82	82	81	86	63	-19	-23.2%
Dental Hygiene	226	240	211	221	202	-24	-10.6%
Diagnostic Medical Sonography	86	104	95	102	112	26	30.2%
Dispute Resolution Certificate	1	1	2	4	2	1	100.0%
Echocardiography	121	119	123	122	128	7	5.8%
Electrical Engineering	76	120	146	164	197	121	159.2%
Electronics Engineering Tech	67	58	51	37	32	-35	-52.2%
Embedded Systems Eng Tech	24	25	32	35	57	33	137.5%
Emergency Medical Services Mgt	0	0	17	20	34	34	-
EMT - Paramedic	29	30	29	28	28	-1	-3.4%
Environmental Sciences	49	49	51	48	42	-7	-14.3%
General Studies	495	736	632	1,031	1,414	919	185.7%
Geomatics	1	0	0	0	0	-1	-100.0%
Geomatics-option in GIS	13	14	10	10	7	-6	-46.2%
Geomatics-option in Surveying	49	39	26	31	30	-19	-38.8%
Health Care Mgmt-Admin Mgmt	0	10	14	19	18	18	-
Health Care Mgmt-Clinical Mgmt	0	4	10	11	25	25	-
Health Care Mgmt-Rad Science	0	3	6	12	12	12	-
Health Informatics	0	0	0	20	38	38	-
Health Sciences	1	1	0	1	2	1	100.0%
Information Technology	0	0	0	56	114	114	-
IT Accounting Option	8	4	2	1	1	-7	-87.5%
IT Applications Dev Opt	91	75	71	48	20	-71	-78.0%
IT Bus/Systems Analysis Opt	58	59	69	51	28	-30	-51.7%
IT Health Informatics Opt	54	68	59	32	17	-37	-68.5%
Magnetic Resonance Imagng Spec	0	0	0	0	4	4	-
Manufacturing Engineering Tech	129	99	109	107	101	-28	-21.7%
Marriage and Family Therapy	0	0	0	0	10	10	-
Mechanical Engineering	208	303	331	323	354	146	70.2%
Mechanical Engineering Tech	145	112	121	121	104	-41	-28.3%
Medical Lab Science-Earlyadm	0	0	0	0	17	17	-
Medical Laboratory Science	0	0	0	0	86	86	-
Mgmt Info Sys/Mgmt Acc Option	1	0	0	0	0	-1	-100.0%
Mgmt/Accounting Option	32	38	35	32	19	-13	-40.6%
Mgmt/Marketing Option	34	34	36	34	37	3	8.8%
Mgmt/Small Bus Mgmt Option	54	43	38	37	33	-21	-38.9%
MIT Applicant	0	0	1	2	0	0	-
Nuclear Medicine Technology	47	51	48	48	49	2	4.3%
Nursing	50	49	52	61	69	19	38.0%
Operations Management	61	66	65	69	70	9	14.8%
Optical Engineering	0	0	3	3	3	3	-
Picture Archive/Comm Sys Spec	0	0	1	2	3	3	-
Polysomnographic Technology	19	13	6	12	5	-14	-73.7%
Population Health Management	0	0	3	24	31	31	-
Pre-Clinical Lab Science	0	8	1	20	2	2	-
Pre-Dental Hygiene	62	65	35	37	48	-14	-22.6%
Pre-Medical Imaging Tech	273	287	253	237	226	-47	-17.2%
Pre-Medical Lab Science	0	0	0	0	27	27	-
Pre-Nursing	56	60	53	69	78	22	39.3%
Pre-Paramedic Education	0	3	3	7	0	0	-
Pre-Renewable Energy Eng	111	0	0	0	0	-111	-100.0%
Pre-Respiratory Care	11	12	8	11	9	-2	-18.2%
Radiologic Science	164	163	154	160	152	-12	-7.3%
Renewable Energy Engineering	110	206	203	180	166	56	50.9%
Respiratory Care	85	84	88	103	117	32	37.6%
Sleep Health-Polysom Tech Opt	0	0	4	6	17	17	-
Software Engineering Tech	260	268	289	309	285	25	9.6%
Spec in Entrepreneur/Small Bus	0	0	0	1	2	2	-
Specialization in Accounting	0	0	0	2	2	2	-
Specialization in Marketing	0	0	1	1	1	1	-
Specialization Travel/Tourism	0	1	0	0	0	0	-
System Engr & Technical Mgmt	0	0	2	3	0	0	-
Technology and Management	16	30	43	46	46	30	187.5%
Vascular Technology	88	95	80	93	98	10	11.4%
Total (Duplicated)	**4,146**	**4,539**	**4,407**	**4,923**	**5,371**	**1,225**	**29.5%**
Total (Unduplicated)	**4,001**	**4,414**	**4,273**	**4,786**	**5,232**	**1,231**	**30.8%**

Attachment 2_Graduates_10_Year_History_by_Major

Oregon TECH

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	-	-	-	-	-	-	-	-	-	-
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

	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

	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	22
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	-	-	-	-	-	-	-	-	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 Outcome Data

a=2013/2014/2015 combined b=2014/2015/2016 combined	% Employed		% Continuing Ed		% Looking for Work		% Not Looking		Success Rate		Median Salary	
	a	**b**	a	**b**	a	**b**	a	**b**	a	**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
Embedded Systems Engineering Tech	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/Entrepreneursh	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 Technolo	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