



## 2016-17 Program Assessment Report

### Respiratory Care 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**

The Respiratory Care Program aligns with the Oregon Institute of Technology Mission Statement of offers innovative and rigorous applied health technologies by not only building professionals in a growing career, but leaders to support the profession for many years in the future. We foster student and graduate success as we provide an intimate, hands-on learning environment and experience that focuses on application of theory to practice through didactic and lab courses that improves interfacing equipment and technologies each year. In line with Oregon Techs offering with statewide educational opportunities for the emerging needs of Oregonians health care, the Respiratory Care Program has been

highly regarded by Oregon State Medical Centers and Hospitals by filling high employment needs with quality graduates. This is further evidenced by 100% employer and student satisfaction survey's mandated by Commission Accreditation for Respiratory Care (CoARC) for several years in a row.

We further meet the Core Themes of Applied Degree Programs by being one of two programs in the Northwest regions that offers a Bachelor of Science Degree in Respiratory Care. CoARC, as of January, 2017 will not recognize any new Associate Degree Programs in Respiratory Care showing a need for higher education within this profession.

Our Student and Graduate Success rate has a current 86.7% on time graduation rate, although our attrition rate is currently 6.6%. Unlike other programs, we as faculty recognize the hardship of family and work outside of academia and work to keep students that may not graduate with their cohort, but will eventually graduate. We do place a 5-year limit to earn a Bachelor's Degree in Respiratory Care. Our students are involved in education as well as speaking or performing for the Oregon Society of Respiratory Care where practicing and student respiratory therapist converge each year for CEU and scholarship opportunities. Statewide Educational Opportunities are met at varying hospitals across the state for extern experiences and applications.

Our program continues to be involved in Public Service each year. One of our biggest contributions is public school K through 12 education on smoking cessation and prevention. Another Public Outreach is being involved in non-invasive medical diagnostics and health screening through various sponsors including Sky Lakes Medical Center and Blue Zone activities.

### **Program Mission**

The purpose of the Respiratory Care Program, a Bachelor of Science Degree, is to provide for the regional needs for respiratory care practitioners prepared at an advanced level of a Registered Respiratory Therapist recognized by the National Board of Respiratory Care (NBRC). It is a unique opportunity to build leaders and educators to promote this profession to a higher standard of care within the healthcare industry.

### **Program Educational Objectives**

- Graduates will demonstrate professional behaviors consistent with employer expectations as advanced-level respiratory therapists (affective domain).
- Graduates will demonstrate the ability to comprehend, apply, and evaluate clinical information relevant to their roles as advanced-level respiratory therapists (cognitive domain).
- Graduates will demonstrate technical proficiency in all the skills necessary to fulfill their roles as advanced-level respiratory therapists (psychomotor domain).

### **Program Faculty Review**

This assessment was not completed at this time.

### **Showcase Learning Opportunities**

The Oregon Institute of Technology Respiratory Care Program has many extra-learning curricular activities.

In 2015-16, we had two students who were able to go to Rwanda, Africa for educating 'Better Baby Breathers' for rural poverty areas.

In 2016-17, we had two students who were able to go to Hanoi, Vietnam to the State Hospital to educate 'Better Baby Breathers' to their medical staff.

In March of 2017, the Senior class overwhelmingly, and somewhat of the Junior class, attended the Annual Oregon Society of Respiratory Care (OSRC) in Wilsonville, Oregon. This is an event where scholarships are offered, an array of new equipment is displayed and most important, networking of potential future employers are met.

We are involved in the local community health fair sponsored by Sky Lakes Medical Center. Our respiratory care students provide non-invasive pulmonary diagnostics as well as pulse oximetry/co-oximetry for community health awareness.

Our students are involved in K through 12 both Klamath City and County Public Schools. Their mission is to educate smoking cessation and prevention of our younger population as well as individualized Asthma Education.

We have a Respiratory Care Club who are involved in community outreach for education and health screening. One example is the Cystic Fibrosis Annual Walk in which our student both donated and walked for this cause. Another, having a station at the local Annual Potato Festival for non-invasive diagnostic testing. Our club is very proactive in raising funds throughout the year to support projects and activities making the program cohort more enjoyable for those who participate.

## **Program History & Vision**

### **Program History**

This Respiratory Care program is one of only three BS degree programs in the states of Oregon, Washington, Alaska, Hawaii and California. In the fall of 2009 Oregon Tech enrolled the first class of bachelor's degree students. The first three cohorts graduated March of 2012, March of 2013 and June of 2014. Oregon Tech celebrates pass rates of 100% for these three classes on the Registered Respiratory Therapist (RRT) examinations. The program experienced a 100% first time pass rate on the RRT Clinical Simulation examination with the June 2014 graduating class. During 2016 our first time pass rate on the RRT Clinical Simulation examination has fallen to 0%.

### **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.

Our Advisory Board for Respiratory Care met November of 2017 discussing the future of our on-campus program. The discussion included being involved in community education and clinical offerings. Our program faculty are becoming ACLS, PALS and BLS instructors to allow job entry graduates from any health care program to become credentialed prior to hire. We discussed within the near future, to offer non-invasive diagnostic studies to the community who fall in the category of low income or uninsured. We have petitioned for a change in a course for Introduction to Pediatrics replacing RCP 389, International Neonatology as suggested by the advisory board. In addition, we are inquiring about a minor in Pediatric Care. Further activities include discussion for a bridge program offered to Paramedics

who want to cross over to Respiratory Care. These initiatives are to spur on growth for both on-campus and distance education respiratory care programs at Oregon Institute of Technology.

### **Program Enrollment**

In 2013 there were a total of 83 respiratory care students in both degree completion and on-campus respiratory care programs.

In 2014 there were a total of 88 respiratory care students in both degree completion and on-campus respiratory care programs.

In 2015 there were a total of 103 respiratory care students in both degree completion and on-campus respiratory care programs.

In 2016 there were a total of 117 respiratory care students in both degree completion and on-campus respiratory care programs.

As of Fall 2017 our On-Campus enrollment to the Respiratory Care Program is 45 Students.

As of Fall 2017 our On-Line enrollment to the Degree Completion Respiratory Care Program is 49 Students.

Our trends are lower than the year following years but at a marginal rate with 95 current students. Program growth is the main priority in our 5-year strategic plan for both on-line and on-campus programs. This involves marketing, interdisciplinary communications and outreach. Respiratory care is not widely known to the public and we have worked with pre Health Science Freshman classes to educate and provide awareness of the respiratory care profession as an alternative.

[\*Attachment 1\\_Enrollment\\_5\\_Year\\_History\\_by\\_Major\*](#)

### **Program Graduates**

Starting in 2011, after the Associate's Degree for Respiratory Care was phased out in 2009-10, we saw an increase in Bachelor Degree success. The trend has remained consistent with marginal up and down statistics. Though the trend remains consistent, we as faculty, see a potential for significant growth for both distance education and on-campus respiratory care programs. Our current attrition rate is 6.6% with on-time graduation at 87%.

[\*Attachment 2\\_Graduates\\_10\\_Year\\_History\\_by\\_Major\*](#)

### **Employment Rates and Salaries**

The National Average by the United States Labor of Bureau Statistics states, 'between 2014 to 2014 that there is a 12% job growth (above the national average) with the average pay of \$57,000 per year.' This trend is expected to continue and grow thereafter, as professionals are retiring in larger numbers and baby boomers are beginning to utilize health care at significant rates. Besides Asthma and COPD being the traditional job security in this profession, we are also finding that obesity and the drug epidemic are contributing to job security at much higher rates as well for respiratory care requiring ventilator care.

[\*Attachment 3\\_Grad\\_Data\\_First\\_Destination\\_3\\_Year\\_History\\_by\\_Major\*](#)

### **Pass Rates on Board and Licensure Exam**

We have a very impressive pass rate of the NBRC at 100% within the first 6 months of graduation. This has held true now for the fourth year in a row with the recognition of the "Distinguished RRT Credentialing Award" given to the Oregon Institute of Technology Respiratory Care Program by CoARC. This includes 100% pass rate for the CRT exam, 100% pass rate for the RRT exam, a 95.1% hire within 6 months of graduation and an attrition of 6.6%. This report also requires employer and student satisfaction surveys to be done within 6 months of post-graduation. Each year, for at least the past 8 years have been found both at 100%. The NBRC exam is found to be one of the most challenging credentialing exam as it involves a 140 multiple choice exam and upon completion, 20 patient simulation computer exam. This exam has been vetted by both reputable Pulmonologist and Cardiologist nationwide.

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

N/A

### **Other Program Assessment Data**

N/A

### **Desired Data**

Our program graduation and employment success has been met and needs to be maintained at this time. Though we are performing at high levels for quality education and academia, we need to keep tenacious towards these continued goals. Our main focus for both on-campus and degree completion programs is growth. For our on-campus program, we have begun a more aggressive marketing program. One of these being Pandora listeners are hearing about the OIT respiratory care by name. We have approached freshman students new to the Allied Health Programs starting 2016-17 and we have noticed a significant increase in pre-respiratory care students. This is being done through interdisciplinary planning.

## **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**

To improve the quality of student learning outcomes from exams, we are now having our students acting out patient case studies and patient approach as would be done in the clinical setting. Many of our previous exams were based on the NBRC exam success. The added value of students acting out case studies that are based on the NBRC exams gives a better value on how they would perform on the actual exam but how they interact with an audience sparking discussion and critical thinking. This is a whole new approach implemented through Dana Oakes', Respiratory Simulations, 2016. This is a guide to

patient care approaches that are enacted live or producing a video. The rubrics used in this student learning outcome is the one used and graded by the audience.

### Assessment Findings

These actions have shown a higher responsibility to meet the quality student learning outcomes. It is difficult to assess an improvement at this time as this is the first year of this totally new approach. To reach previous standards is difficult to equate as the students are more challenged with this type of project. What can be assessed is the higher value of this project versus the projects that were used in the past. What has been revealed in this assessment is the difference in efforts between students towards this project.

## Program Student Learning Outcomes Assessment Cycle

<b>PROGRAM STUDENT LEARNING OUTCOMES</b> <b>3-Year Cycle</b> <b>Vascular Technology B.S.</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
OIT-BRCP 2016-17.1 The ability to communicate effectively in oral, written and visual forms.	RCP 387		
OIT-BRCP 2016-17.2 Knowledge of the respiratory care code of ethics and ethical and professional conduct.			
OIT-BRCP 2016-17.3 The ability to function effectively in the health care setting as a member of the healthcare team.			
OIT-BRCP 2016-17.4 Knowledge and application of mechanical ventilation and therapeutics.			
OIT-BRCP 2016-17.5 Knowledge and application of cardiopulmonary diagnosis and monitoring.	RCP 386		
OIT-BRCP 2016-17.6 Knowledge and application of cardiopulmonary pharmacology and pathophysiology.			
OIT-BRCP 2016-17.7 Management of respiratory care plans for adult, neonatal and pediatric patients.			

## 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-BRCP 2016-17.1 The ability to communicate effectively in oral, written and visual forms.	
<b>Course/Event</b>	RCP 386
<b>Legend</b>	P – Practice
<b>Assessment Measure</b>	Direct – Oral Presentation
<b>Criterion</b>	To display and effectively discuss like case studies to an audience of the instructor and their peers. This includes audience participation at the end of the case study that sparks active discussion. The goal is a novice approach to production of a case study to be given to cohorts.
<b>Course/Event</b>	RCP 387
<b>Legend</b>	C – Capstone
<b>Assessment Measure</b>	N/A
<b>Criterion</b>	To continue displaying effective discussion with individual selected case studies to an audience of the instructor and their peers. This forum is opened to any observer. This includes intense audience participation at the end of the case study that sparks active discussion. It requires a written form of feedback and team dynamics through the process of creating these simulations. The student should have a competent approach at this level.
<b>Course/Event</b>	Student Exit Survey
<b>Legend</b>	C – Capstone
<b>Assessment Measure</b>	Indirect – Student Exit Survey
<b>Criterion</b>	N/A

OIT-BRCP 2016-17.5 Knowledge and application of cardiopulmonary diagnosis and monitoring.	
<b>Course/Event</b>	RCP 386
<b>Legend</b>	P – Practice
<b>Assessment Measure</b>	Direct – Case Analysis
<b>Criterion</b>	Case Study Video Production of Patient Care with COPD. This should include a methodological approach that is standard practice as seen by the NBRC. The student is expected to have a novice approach to this like case study that the cohort engages in.
<b>Course/Event</b>	RCP 387
<b>Legend</b>	C – Capstone
<b>Assessment Measure</b>	Direct – Oral Presentation
<b>Criterion</b>	Case study video production on varying patient diseases and approaches that are standardized by the NBRC. The student is expected to have a competent approach to the varying case study that the cohort engages in and grades each individual upon.
<b>Course/Event</b>	Student Exit Survey
<b>Legend</b>	C – Capstone
<b>Assessment Measure</b>	Indirect – Student Exit Survey
<b>Criterion</b>	N/A

## Analysis of Results

OIT-BRCP 2016-17.1 The ability to communicate effectively in oral, written and visual forms.	
<b>Criterion</b>	Not Met
<b>Summary</b>	Video Quality did not meet the rubric criteria assessed at 69.6%. Introduction to the patient case did not meet the rubric criteria also assessed at 69.6%. Student clinical skills did meet the criteria at 85.7% of the rubric. This was the only criteria within the rubric that was met. Student equipment use and dexterity did not meet at 69.6% of the rubric criteria. Student interaction with the audience was found to be at the lowest rated at 55.9% of the rubric criteria. Student conclusion and summary did not meet the rubric criteria rated at 74.7%. This assessment was a challenge for the student as the performance added more quality content to this student learning outcome. This is the first year adding in role playing, patient case performance and audience interaction. This experience will help create exercises that will help strengthen these identified areas of weakness prior to the assessment in the future.
<b>Improvement Narrative</b>	<i>Assessment Method Change:</i> Consider highly suggesting video production as one of the electives to help prepare filming and/or performing in front of an audience. The assessment of student learning outcomes criteria should be nurtured throughout the term to help strengthen the identified weaknesses found in this assessment. This is the first assessment of this kind which is a radical change in anything we have done in the past, yet adds a challenge of a much more quality assessment outcome.

OIT-BRCP 2016-17.5 Knowledge and application of cardiopulmonary diagnosis and monitoring.	
<b>Criterion</b>	Not Met
<b>Summary</b>	Video Quality did not meet the rubric criteria assessed at 69.6%. Introduction to the patient case did not meet the rubric criteria also assessed at 69.6%. Student clinical skills did meet the criteria at 85.7% of the rubric. This was the only criteria within the rubric that was met. Student equipment use and dexterity did not meet at 69.6% of the rubric criteria. Student interaction with the audience was found to be at the lowest rated at 55.9% of the rubric criteria. Student conclusion and summary did not meet the rubric criteria rated at 74.7%. This assessment was a challenge for the student as the performance added more quality content to this student learning outcome. This is the first year adding in role playing, patient case performance and audience interaction. This experience will help create exercises that will help strengthen these identified areas of weakness prior to the assessment in the future.
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	outcomes criteria should be nurtured throughout the term to help strengthen the identified weaknesses found in this assessment. This is the first assessment of this kind which is a radical change in anything we have done in the past, yet adds a challenge of a much more quality assessment outcome.

**References**

**Program Assessment Coordinator: Jeffrey Pardy, Assistant Professor, Respiratory Care and Sleep Health**

**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 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%
<b>Total (Duplicated)</b>	<b>4,146</b>	<b>4,539</b>	<b>4,407</b>	<b>4,923</b>	<b>5,371</b>	<b>1,225</b>	<b>29.5%</b>
<b>Total (Unduplicated)</b>	<b>4,001</b>	<b>4,414</b>	<b>4,273</b>	<b>4,786</b>	<b>5,232</b>	<b>1,231</b>	<b>30.8%</b>

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



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	-	-
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>7</b>	<b>3</b>	<b>0</b>

## 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
<b>Total</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>16</b>	<b>17</b>	<b>12</b>	<b>14</b>	<b>17</b>	<b>4</b>	<b>11</b>

## 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
<b>Total</b>	<b>97</b>	<b>81</b>	<b>72</b>	<b>79</b>	<b>53</b>	<b>50</b>	<b>57</b>	<b>60</b>	<b>67</b>	<b>50</b>

## 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
<b>Total</b>	<b>492</b>	<b>434</b>	<b>490</b>	<b>497</b>	<b>534</b>	<b>565</b>	<b>612</b>	<b>632</b>	<b>599</b>	<b>689</b>

**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
<b>Total</b>	<b>3</b>	<b>4</b>	<b>7</b>	<b>2</b>	<b>6</b>	<b>8</b>	<b>12</b>	<b>5</b>	<b>21</b>	<b>24</b>

**Grand Total**

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

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

## Oregon Tech Graduate Outcome Data

a=2013/2014/2015 combined	% Employed		% Continuing Ed		% Looking for Work		% Not Looking		Success Rate		Median Salary	
b=2014/2015/2016 combined	a	b	a	b	a	b	a	b	a	b	a	b
<b>% among those reporting outcomes</b>	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/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 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