



2016-17 Program Assessment Report

Vascular Technology 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 Oregon Tech Vascular Technology program prides itself on truly engaging students with "hands-on" both in laboratory practices and in lectures as much as possible to integrate Vascular Technology theory to practice. Reflection from Vascular Industry rates the Oregon Tech Vascular Technology program as the best in America with job placement consistently in the 90- 100% range.

Program Mission

To prepare competent entry-level vascular sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains

Program Educational Objectives

- The program prepares students to utilize diagnostic techniques, sound judgment and good decision making to provide patient services.
- The program communicates the importance of becoming credentialed in the profession of vascular technology.
- The program prepares students who think critically, communicate effectively and exemplify professional ethics.
- The program conveys the importance of becoming lifelong learners and responsible citizens.

Program Faculty Review

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

The Vascular Technology faculty meet formally each year according to the annual convocation schedule and multiple times during the academic year to discuss both quantitative and qualitative issues to maintain the highest value assessment activities to be engaged. Also discussed at last Fall's convocation meeting was how to integrate the survey based assessment required by our programmatic accreditation through the Joint Review Committee of Diagnostic Medical Sonography with our program student learning outcomes.

Showcase Learning Opportunities

Met to view the previous 2015-2016 assessment conclusions items and discussed how to integrate suggestions from industry to better train students to elongate vessels, how to better "heel-and-toe" the scanning probe and to better prepare themselves for ergonomic positioning.

Program History & Vision

Program History

The Vascular Technology Program officially began in 1992 and is one of the five current on-campus Medical Imaging programs at Oregon Institute of Technology. Enrollment trends from 2002 – 2016 have varied from 50 to 89 students per year in the program. By fall term of 2016, there were 50 students enrolled in the program. For the class of 2016, retention was 70.0% and attrition was 30%

Meeting with Advisory Board

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

[*Attachment 1_Advisory_Board_2017_Meeting_Minutes*](#)

Advisory Board Review

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

The Vascular Technology Program Advisory Board met on May 23, 2017.

Discussion included a report on the recent Request for Proposal for new ultrasound equipment for a five-year lease being awarded to the company known as Mindray who will be bringing ten new ultrasound units into the sophomore and junior vascular labs. Also discussed was the high attrition that had to be reported this year to our programmatic accrediting body known as the Joint Review Committee on Education in Diagnostic Medical Sonography. Also discussed was current trends of low enrollment and what efforts have been made to better recruitment.

Actions primarily centered around what can be done to broaden recruitment efforts. Several practical ideas were agreed upon and are included in the uploaded minutes below.

Program Enrollment

As of Fall 2016: sophomores - 19, juniors = 14 and seniors = 17 for a total of 50

[*Attachment 2_Enrollment_5_Year_History_by_Major*](#)

Program Graduates

The Institutional research below contains graduate numbers for both the on-campus and online programs.

[*Attachment 3_Graduates_10_Year_History_by_Major*](#)

Employment Rates and Salaries

Class of 2016 - 16 of 17 employed = 94% employment rate. Median Salary for classes of 2014/2015/2016 = \$62,000/Year.

[*Attachment 4_Grad_Data_First_Destination_3_Year_History_by_Major*](#)

Pass Rates on Board and Licensure Exam

American Registry of Diagnostic Medical Sonographers Vascular Technology Class of 2016 pass rate = 100%.

Results of Board or Licensure Exam

Program Pass Rates Meet or Exceed National Average.

Other Program Assessment Data

Vascular Program Statistics and Failure Rates Per Course:

The Vascular Technology Program officially began in 1992 and is one of the five current on-campus Medical Imaging programs at Oregon Institute of Technology. Enrollment trends from 2002 – 2016 have varied from 50 to 89 students per year in the program. By fall term of 2016, there were 50 students enrolled in the program. For the class of 2016, retention was 72.7% and attrition was 27.3%

- The number of students who entered the VT program for the cohorts of graduating classes from 1994 to 2016 was 580. Of those 580 students, 447 have graduated.
- Overall retention has therefore been 77.1% and attrition has been 22.9%
- Core VT program course failure rates per the 580 students accepted were as follows:
 - 8.1% or 47 failures in MIT 231, Sonographic Physics & Instrumentation I

- 3.5% or 20 failures in MIT 232, Sonographic Physics & Instrumentation II
 - 3.3% or 19 failures in VAS246, Peripheral Arterial Disease
 - 2.6% or 15 failures in VAS420, Externship.
 - 1.7% or 10 failures in VAS365. Abdominal Disease
 - 1.0% or 6 failures in CHE210, Pharmacology
 - 1.2% or 7 failures in BIO 220, Cardiovascular Physiology.
 - 0.9% or 5 failures in PHY217, General Physics.
 - 0.9% or 5 failures in VAS245, Peripheral Venous Disease
 - 0.7% or 4 failures in VAS214, Vascular Anatomy
 - 0.7% or 4 failures in BIO 346, Pathophysiology I
 - 0.5% or 3 failures in VAS225, Patient Management Practices
 - 0.5% or 3 failures in VAS366, Special Circulatory Problems
 - 0.4% or 2 failures in VAS 335, Radiographic Vascular Anatomy
 - 5.5% or 32 students left the Vascular program for a career change (no failures)
- Combining the 580 students with the students accepted into the graduating classes of 2017, 2018 and 2019, a total of 635 students have been accepted into the VT program by the Fall term of 2016.

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.

N/A

Changes Implemented

N/A

Assessment Findings

N/A

Program Student Learning Outcomes Assessment Cycle

PROGRAM STUDENT LEARNING OUTCOMES	2016-17	2017-18	2018-19
3-Year Cycle Vascular Technology B.S.			
OIT-BVT 2016-17.1 The ability to communicate effectively in oral, written and visual forms.	VAS 385 VAS 420 Student Exit Survey		
OIT-BVT 2016-17.2 The ability to work effectively in teams.	VAS 385 VAS 420		

	Student Exit Survey		
OIT-BVT 2016-17.3 An ability to provide basic patient care and comfort.	VAS 225 VAS 420 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-BVT 2016-17.1 The ability to communicate effectively in oral, written and visual forms.	
Course/Event	VAS 385
Legend	C – Capstone
Assessment Measure	Direct – Oral Presentation
Criterion	90% with 3.0 or higher
Course/Event	VAS 420
Legend	C – Capstone
Assessment Measure	Direct – Assignment
Criterion	90% with 3.0 or higher
Assessment Measure	Direct – Performance Appraisals
Criterion	90% with 85% or higher
Course/Event	Student Exit Survey
Legend	C – Capstone
Assessment Measure	Indirect – Student Exit Survey
Criterion	90% with a rating of 3 or higher

OIT-BVT 2016-17.2 The ability to work effectively in teams.	
Course/Event	VAS 385
Legend	C – Capstone
Assessment Measure	Direct – Project (group)

Criterion	90% with 3.0 or higher
Course/Event	VAS 420
Legend	C – Capstone
Assessment Measure	Direct – Performance Appraisals
Criterion	85% with 90% or higher
Course/Event	Student Exit Survey
Legend	C – Capstone
Assessment Measure	Indirect – Student Exit Survey
Criterion	80% with a rating of 4.0 or better

OIT-BVT 2016-17.3 An ability to provide basic patient care and comfort.	
Course/Event	VAS 225
Legend	F – Foundation
Assessment Measure	Direct – Exam Questions (essay or problem)
Criterion	80% with 2 or more correct
Course/Event	VAS 420
Legend	C – Capstone
Assessment Measure	Direct – Performance Appraisals
Criterion	85% with 90% or higher
Course/Event	Student Exit Survey
Legend	C – Capstone
Assessment Measure	Indirect – Student Exit Survey
Criterion	80% with a score of 3.0 or better

Analysis of Results

OIT-BVT 2016-17.1 The ability to communicate effectively in oral, written and visual forms.	
Criterion	Met
Summary	The requirements for written and oral communication in the vascular technology field include presentation of case studies at quality assurance conferences, writing of preliminary reports and communicating findings of vascular ultrasound studies to vascular surgeons, allied health workers and other physicians as well. The vascular faculty feel the written and oral communication skills taught at Oregon Tech prepare our graduates well for these field requirements.
Improvement Narrative	N/A

[Attachment 5_PSLO_1_Student_Exit_Survey](#)

[Attachment 6_PSLO_1_VAS_385](#)

[Attachment 7_PSLO_1_VAS_420_ESLO](#)

[Attachment 8_PSLO_1_VAS_420](#)

OIT-BVT 2016-17.2 The ability to work effectively in teams.

Criterion	Met
Summary	The vascular faculty met and agreed that students in our vascular program both come with a sense they will be involved in teamwork activities and are most open to the teamwork education we provide. As is typical, some students in group activities take their responsibilities seriously and some do not with usually the minority taking the bulk of responsibility. Although we encourage better participation, we know this is a human trait difficult to eliminate with education alone.
Improvement Narrative	N/A

[Attachment 9_PSLO_2_Student_Exit_Survey](#)

[Attachment 10_PSLO_2_VAS_385](#)

[Attachment 11_PSLO_2_VAS_420](#)

OIT-BVT 2016-17.3 An ability to provide basic patient care and comfort.

Criterion	Met
Summary	The vascular faculty met and agreed patient management care as taught on the Oregon Tech campus absolutely meets the requirements of the field and that recent added activities of drawing blood, moving patients to facilitate transport and requiring clinical rotations at Sky Lakes Medical Center have been most complimentary. Students can still improve in regard to anticipating patient needs, but they are green and new to the field.
Improvement Narrative	N/A

[Attachment 12_PSLO_3_Student_Exit_Survey](#)

[Attachment 13_PSLO_3_VAS_225](#)

[Attachment 14_PSLO_3_VAS_420](#)

References

Program Assessment Coordinator: Christopher Caster, Associate Professor, Medical Imaging Technology

Office of Academic Excellence

**Oregon Tech
Vascular Technology Program
Advisory Board Meeting
5/23/2017**

Committee Members:

Dr. Misty Humphries	Medical Director – not present but has reviewed minutes
Sarah Coello	Graduate Representative - present
Brandon Butler	Student Representative - present
Colton Wilson	Student Representative - present
Chris Caster	Vascular Technology Program Director - present
Janette Isaacson	Vascular Technology Online Program Director - present
Joanne S. Van Kampen	Professional Career Consultant - present
Jason Card	Local Sonography Business Professional - present
Leah Jolly	Clinical Coordinator - present
Tanya McVay	Professor of Physics & Cardiovascular Physiology - present

Minutes

- Introduction of committee members
- This year’s Request For Proposal (RFP) for 25 ultrasound units for three programs at Oregon Tech was awarded to Mindray. We will receive all requested probes, software and maintenance agreements included in one price for a five-year lease. No other vendors came close to the phenomenal deal extended to us by Mindray. Our old equipment will be shipped out this summer and the new equipment installed and ready for the fall term ultrasound courses.
- Programmatic Accreditation
 - This year we had to report 30% attrition for the 2016 Graduating Class in the manner required by JRC-DMS
 - For the Class of 2017, attrition will be closer to 15%.
- Lower enrollment in the Vascular Program combined with the attrition we have been experiencing has resulted in only 13 students being sent out for extern this coming academic year.
 - We have continued having both our sophomore and junior on-campus students speak to the on-campus medical imaging freshmen in regard to why they chose vascular technology as a career.
 - Just this year, we have begun to include “Zoom” real time video sessions with our online medical imaging students to inform them of the details of Vascular Technology. We are working with our online medical imaging professors to mandate, by pass or fail activities, that prospective students know what the vascular technology field requirements entail.
 - Leah gave an explanation of how the zoom session was put together and the impact it had on the students that attended.

- Leah Jolly is actually making this a focal point for her master’s thesis. We are in high hopes our enrollment will increase significantly in the near future.
- Our Junior students are creating a recruiting video from the standpoint of what they would have like to have seen when they were considering a career in vascular technology. Once complete, this video will be included as mandatory viewing in both the online and on-campus MIT 103 courses.

Discussion:

- Chris commented on the fact that a survey was conducted on campus and the number one reason students gave for deciding on the career they were going into is that it was what their friend were going into.
- Tanya commented on the fact that students coming out of high school and are very social especially with the importance they place on social media.
- JoAnne asked if students are mostly seeking vascular position in the Northwest or are they settling for positions further East.
- Chris commented on student reflection that Northwest jobs and especially Oregon jobs have been somewhat saturated by our graduates.
- Jason suggested we tap into those former graduates from the Vascular program who have moved “up-the-ladder” from the vascular lab and into management.
- Chris had commented that he had spoken with Will Farmer in Burlington, VT and perhaps using recorded “Zoom” sessions to be made available for use in the MIT 103 course would help with recruitment.
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- Jason also commented on how Oregon Tech has been rated 9th out of the 10 best technical schools in America and we should include this fact as a part of our marketing.
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- Brandon suggested branching out of state to hospitals who recognize our program as being more specialized and can identify potential students who would be sponsored and be able to come right back to that hospital for extern. Brandon also asked if somehow the WUI could be extended to more states?
- Tanya commented that Oregon Tech is really limited in being able to extend WUI to other states. Tanya also commented that hospitals could provide better sponsorship in tuition dollars for those students they would send to our program.
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- Tanya also noted that students on extern must compose a “site report” and why not have an additional assignment mandating students present the vascular program to

high school student career fairs and/or community college students. Tanya even suggested having a presentation “package” ready to send out with the extern students to make the assignment that much more professional.

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- Leah suggested we might even be able to coordinate a presentation to high school students or community colleges together when we the faculty come for a site visit.
- Colton brought up the fact that we might be able to use the Oregon Tech App. For student cell phones with literature and/or a video of “Check out Vascular.” Colton even mentioned this could be a good Vascular Club assignment.
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- Sarah suggested in our marketing to emphasize the advantages of a baccalaureate degree in vascular over an associate degree and expound on the reasons why it is so worth it.
- JoAnn suggested also marketing the greatest nuances the program has to offer.
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- Colton suggested that since most of the students who come into the vascular program are transfer students, there should be an emphasis by the faculty to make presentations on their campuses.
- Tanya suggested going to the top 5 community colleges from whom transfer students make application to the MIT programs and maybe even make two trips a year. Planning for this should occur early in the academic year to make facilitate scheduling for the presentations at the community colleges or even at high schools.
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- Janette suggested checking in with Erika Veth for marketing strategies.
- Geo-marketing adds on phone filters to target certain groups of people. And you can find out who is looking at the adds.
- Twitter can help with recruitment, but it does cost money.
- Di Sanders can help with her expertise and web page revamping.
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- Affiliation agreements and on-boarding contracts for extern continue to be challenging and require more and more of our time. We have recently discovered our own Student Health cannot relay student documentation of immunization on to our affiliates as the information could be fraudulent. We are therefore seeking a company known as Trajecsys who is willing to gather the evidence of immunization from students and then provide it as verification of immunization to our affiliates who would require it. This is another expense the student must pay for, but we see no alternative.

Discussion:

- JoAnn commented that almost every organization she knows of now requires a criminal background check (CBC). JoAnn also mentioned that the Kaizer Health System has its own internal training for ultrasound disciplines.
 - Janette stated CBC's are becoming more complex as records per states must be accounted for.
 - All agreed that it would be nice if the entire onboarding process could be standardized somehow.
-
- As always, we covet any information from this board in regard to any recommendations you would like to make or deficiencies you see in our Vascular Technology program.
 - Most of the recommendations centered around the topics above
 - Open Floor for Comments
 - Janette also offered words of encouragement to say we are doing a good job educating the vascular students.



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%

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 4_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
% 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/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

Oregon Institute of Technology
VAS 420 Extern 2015-16 Extern Year Class
Assessment Activity PSLO #1, collection date 5/2/17

Student	Student rating of how OIT prepared them for outcome #1	Student rating of how their extern site prepared them for outcome #1
Student 1	4	4
Student 2	4	4
Student 3	4	4
Student 4	4	4
Student 5	4	4
Student 6	4	4
Student 7	4	4
Student 8	4	4
Student 9	3	3
Student 10	3	3
Student 11	3	3
Student 12	3	4
Student 13	4	4
Student 14	4	4
Student 15	3	3
Student 16	4	4
Student 17	4	4
% with 3 rating or higher	100%	100%

Oregon Institute of Technology

VAS 420 Extern Winter Term 2017 Case Study

Assessment Activity PSLO #1/ESLO Communication - Written, collection date 5/1/17

	<i>Purpose & Audience Content</i>	<i>Focus & Organization organized ideas -</i>	<i>Support & Documentation</i>	<i>Style & Conventions language & grammar</i>	<i>Visual Communication</i>	<i>Justification</i>
Student 1	4	3	4	3	3	3
Student 2	4	4	3	4	4	4
Student 3	4	4	4	4	4	4
Student 4	4	4	4	4	3	4
Student 5	4	4	4	4	4	4
Student 6	4	4	4	4	4	4
Student 7	4	4	4	4	4	4
Student 8	4	4	3	3	3	4
Student 9	4	4	4	4	4	4
Student 10	4	4	4	3	3	4
Student 11	4	3	4	4	4	4
Student 12	4	3	4	3	4	4
Student 13	4	3	4	4	4	3
Student 14	3	3	2	3	4	4
Student 15	4	3	4	4	2	4
Student 16	4	4	4	4	4	4
Student 17	4	4	4	4	4	4
80% with 3	100%	94%	100%	100%	94%	100%

Oregon Institute of Technology
VAS 420 Extern 2016-2017 Academic Year
Assessment Activity PSLO #3, calculation date 5/2/17

Student	Maintains Clinical Records	Oral and Written Summary of Clinical Findings	Appropriate use of medical terminology, abbr. etc.	Educates Patients and other Health Care Providers
Student 1	95	95	95	95
Student 2	85	85	85	85
Student 3	100	100	100	100
Student 4	85	85	85	85
Student 5	95	80	90	85
Student 6	100	95	100	100
Student 7	90	N/A	90	90
Student 8	95	95	90	95
Student 9	95	95	90	90
Student 10	90	90	90	85
Student 11	80	80	80	80
Student 12	100	100	100	100
Student 13	90	90	90	90
Student 14	100	100	100	100
Student 15	90	90	90	90
Student 16	95	85	90	100
Student 17	95	90	90	95
% with 85% correct or higher	94%	88%	94%	94%

Indirect Activity for PSLO #2

Collection Date: 5/2/17

Course where assessment took place: VAS 420 (2015 - 2016) Extern Exit Survey

Student	Student rating of how OIT prepared them for outcome #2 (1-4 scale)	Student rating of how their extern site prepared them for outcome #2. (1-4 scale)
Student 1	4	4
Student 2	4	4
Student 3	4	4
Student 4	4	4
Student 5	4	4
Student 6	4	4
Student 7	4	4
Student 8	4	4
Student 9	4	4
Student 10	4	4
Student 11	3	4
Student 12	3	4
Student 13	4	4
Student 14	4	4
Student 15	4	4
Student 16	4	4
Student 17	4	4
% with 4 rating or higher	88%	100.00%

VAS 385
Section 1
CRN 31609
Instructor Jolly
Term/year Spring 2017

Proficiency Scale (see rubric)
4 High proficiency
3 Proficiency
2 Some proficiency
1 No/limited proficiency

Student	Group Identifier	1. Achieves goal/purpose	2. Assumes roles & responsibilities	3. Communicates effectively	4. Reconciles disagreements	5. Shares work appropriately	6. Develops strategies/actions	7. Cultural Adaptation
Student 1	Group 1	3	4	4	3	4	4	4
Student 2	Group 1	3	4	4	3	4	3	4
Student 3	Group 1	4	4	4	4	4	4	4
Student 4	Group 1	4	4	4	4	4	4	4
Student 5	Group 1	3	2	4	4	2	3	4
Student 6	Group 2	4	3	3	4	3	4	4
Student 7	Group 2	4	4	4	4	4	4	4
Student 8	Group 2	4	4	4	4	4	4	4
Student 9	Group 2	4	4	4	3	4	3	4
Student 10	Group 3	3	4	4	3	4	4	4
Student 11	Group 3	3	4	4	3	4	4	4
Student 12	Group 3	4	4	4	4	4	4	4
Student 13	Group 3	4	4	3	3	4	4	4
% with 3 or more correct		100%	92.30%	100%	100%	92.30%	100%	100%

PSLO # 2, VAS 420 from 2017 Extern Competency Evaluations

Date of data collection: 5/2/2017

Student	<i>Recognizes role as a vascular lab team member.</i>	<i>Demonstrates initiative in vascular lab team effort.</i>	<i>Tathers quality assurance data for vascular lab</i>	<i>Works effectively as a team member on lab projects</i>
Student 1	100	100	100	100
Student 2	90	90	95	95
Student 3	100	100	100	100
Student 4	90	90	n/a	100
Student 5	100	100	90	100
Student 6	100	100	100	100
Student 7	90	90	n/a	90
Student 8	90	90	95	95
Student 9	90	90	95	95
Student 10	95	95	95	95
Student 11	80	80	80	85
Student 12	100	100	100	100
Student 13	85	85	90	90
Student 14	100	100	100	100
Student 15	95	95	95	95
Student 16	100	100	100	100
Student 17	95	95	n/a	95
% with 90% or higher	88%	88%	93%	94%

* Extern Competency Evaluations are Housed in Trajecsys reporting service

Indirect Activity for PSLO #3**Collection Date: 1/12/17****Course where assessment took place: VAS 420 (2015 - 2016) Extern Exit Survey**

Student	Student rating of how OIT prepared them for outcome #3 (1-4 scale)	Student rating of how their extern site prepared them for outcome #3. (1-4 scale)
Student 1	4	4
Student 2	4	4
Student 3	4	4
Student 4	4	4
Student 5	3	3
Student 6	4	4
Student 7	3	4
Student 8	4	4
Student 9	4	4
Student 10	3	3
Student 11	3	4
Student 12	3	4
Student 13	4	4
Student 14	4	4
Student 15	4	4
Student 16	4	4
Student 17	4	4
% with 3 rating or higher	100%	100.00%

Oregon Institute of Technology
VAS 420 Extern 2016-2017 Academic Year
Assessment Activity PSLO #3, calculation date 1/12/17

Student	Knowledge of Universal Precautions	Anticipates/ responds to patient needs	Knowledge of HIPAA Policies	Performs Within the Ultrasound Scope of Practice
Student 1	95	95	95	100
Student 2	90	90	90	90
Student 3	100	100	100	100
Student 4	100	85	100	100
Student 5	95	95	95	100
Student 6	100	100	100	100
Student 7	90	90	90	90
Student 8	95	90	95	90
Student 9	95	90	90	95
Student 10	90	90	90	95
Student 11	85	80	80	80
Student 12	100	100	100	100
Student 13	90	90	90	90
Student 14	100	100	100	100
Student 15	95	95	95	95
Student 16	95	95	100	100
Student 17	95	95	100	95
% with 90% correct or higher	94%	88%	94%	94%