



2016-17 Program Assessment Report

Radiologic Science 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 Radiologic Science program is the quintessential example of the University mission and core themes by providing students a unique hands-on learning experience in the field of medical imaging. Once a student is accepted into the Radiologic Science (RDSC) program, he/she will be exposed to learning opportunities including on campus didactic training and extensive laboratory experiences followed by an 11-month externship in the real-world clinical setting applying theory and skills that were presented on campus.

The RDSC student also exceeds the didactic training requirements in multiple post-primary modalities (MRI, CT, Mammography, and Interventional) as stated by the American Registry of Radiologic Technologists (ARRT). The student is then allotted a minimum of 12 weeks' clinical application where he/she can complete clinical competencies as required by the ARRT to sit for the post-primary modality national registry exam.

The Oregon Tech RDSC graduate can fit two unique niches in Oregon and throughout the Pacific Northwest:

1. Rural healthcare facilities prefer hiring technologists that are multimodality trained to reduce staffing burden.
2. Urban healthcare facilities prefer hiring technologists that have specialized training in a single post-primary imaging modality rather than cross-training a general radiographer.

Core Theme 1: Applied Degree Programs: We are dedicated to providing the highest quality education in the EMS industry as demonstrated through the caliber of our faculty, the tremendous success of our alumni, and the enthusiastic support of our EMS employers.

Core Theme 2: Student and Graduate Success: Our aim is to continue to partner with high potential students, from diverse backgrounds and perspectives, and assist them in becoming national EMS clinical and organizational leaders.

Core Theme 3: Statewide Educational Opportunities: We will continue supporting bold intellectual pursuits that advance and expand the EMS industry's comfort zone in order to improve and innovate both the quality of individual patient care as well as the systems of EMS care.

Core Theme 4: Public Service: We strive to partner with communities, industry, other colleges and universities, and private citizens to develop community-based solutions to community problems

Program Mission

The purpose of the Radiologic Science Bachelor's Degree Program at Oregon Institute of Technology is to provide graduates with the knowledge, clinical skills, and compassion that will allow them to become exemplary medical imaging technologists and future leaders in radiology and advanced or post-primary imaging professions.

Program Educational Objectives

- Be compassionate, caring healthcare professionals.
- Be eligible, well-prepared, and able to sit for and pass the ARRT credentialing examination.
- Have immediate job placement within six months of graduation.
- Work in advanced imaging fields and sit for advanced imaging registries.

Program Faculty Review

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

The 2016-17 PSLOs discussed October 3, 2017 at a radiologic science (RDSC) program meeting were:

- PSLO #1 Communicate effectively in the health care setting.

- PSLO #4 Demonstrate teamwork skills while conducting patient procedures.
- PSLO #9 Demonstrate radiation safety for self, staff, and patients as set forth by the ALARA standard.
- The RDSC PSLO #1 aligned with the Oregon Tech 2016-17 ESLO #1 Communication.

PSLO/ESLO #1 Communication

While the institutional ESLO#1 focuses on formal writing and oral public presentation skills, the RDSC faculty informally monitors these skills in various courses through-out program, the program focus is on the development of interpersonal communication skills in the healthcare setting. These interpersonal communication skills are observed in the classroom, laboratory, and casual interactions then documented on the student Professional Evaluation which is reviewed with the student most terms during the didactic phase of his/her educational experience. The benefit of this tool is that the student receives immediate or near immediate feedback reinforcing or providing remediation according to the skill level.

The senior year is an 11-month externship in industry. During this externship the student interpersonal communication skills are observed in the clinical setting while the student communicates with healthcare professionals that cross over discipline lines as well as with patients. This is documented on regularly performed Professional Evaluations followed by a Senior Exit Survey and a Clinical Instructor (CI) Survey conducted by the RDSC Program Director.

After reviewing the PSLO #1 data from the Professional Evaluations, Senior Exit Survey, and the industry professional CI Survey, the faculty felt that the programmatic goal to meet or exceed expectations in communication were met. Faculty felt that there were two areas to focus on were to: 1) promote better CI participation in the CI survey for a more robust data set and 2) change the sophomore Professional Evaluation from spring term RDSC 211 and RDSC 233 to winter term RDSC 202, RDSC 205, and RDSC 210. The reasoning is that the spring term courses provide increased opportunity to observe communication skills.

PSLO #4 Demonstrate teamwork skills while conducting patient procedures.

Teamwork skills are observed in the classroom, laboratory, and casual interactions then documented on the student Professional Evaluation which is reviewed with the student most terms during the didactic phase of his/her educational experience. The benefit of this tool is that the student receives immediate or near immediate feedback reinforcing or providing remediation according to the skill level.

The senior year is an 11-month externship in industry. During this externship the student teamwork skills are observed in the clinical setting while the student interacts and works with healthcare professionals that cross over discipline lines. This is documented on regularly performed Professional Evaluations followed by a Senior Exit Survey and a Clinical Instructor (CI) Survey conducted by the RDSC Program Director.

After reviewing the PSLO #4 data from the Professional Evaluations, Senior Exit Survey, and the industry professional CI Survey, the faculty felt that the programmatic goal to meet or exceed expectations in teamwork were met. Faculty felt that there were two areas to focus on were to: 1) promote better CI participation in the CI survey for a more robust data set and 2) change the sophomore Professional Evaluation from spring term RDSC 211 and RDSC 233 to winter term RDSC 202, RDSC 205, and RDSC 210. The reasoning is that the spring term courses provide increased opportunity to observe teamwork skills.

PSLO #9 Demonstrate radiation safety for self, staff, and patients as set forth by the ALARA standard.

During the didactic phase of the student learning experience radiation safety, and the principle of “As Low AS Reasonably Achievable” (ALARA) is embedded throughout the curriculum then measured in RDSC 272 Radiation Protection.

The senior year is an 11-month externship in industry. During this externship the student ALARA skills are observed in the clinical setting while the student administers diagnostic radiation to patients. At times the student must provide radiation protection to other healthcare professionals that are present during radiographic procedures. This is documented on regularly performed Professional Evaluations followed by a Senior Exit Survey and a Clinical Instructor (CI) Survey conducted by the RDSC Program Director.

After reviewing the PSLO #9 data from successful completion of RDSC 272, Senior Exit Survey, and the industry professional CI Survey the, faculty felt that the programmatic goal to meet or exceed expectations in radiation protection and ALARA were met. While this skill will continue to be monitored, there is not an indication to modify assessment at this time.

Showcase Learning Opportunities

RDSC students have additional learning opportunities through participation in Association of Collegiate Educators in Radiologic Technology (ACERT) conferences held in Las Vegas each year and attendance at the Oregon Society of Radiologic Technologists conference. Sophomore and junior students are registered as student members of the OSRT while seniors on externship register as student members of the American Society of Radiologic Technologists. These memberships provide excellent opportunities for students to network, participate in society activities and provide a robust library of resources.

The Radiologic Science student club participates in a joint venture with the Federal Fish and Wildlife Services of Klamath Falls, to identify fish species through digital imaging of fish that are named in the endangered species list.

While all RDSC students are required to successfully complete courses in MRI, CT, and interventional radiography, the program offers elective imaging courses in mammography, advanced MRI, cadaver imaging, and advanced CT that will be offered spring of 2019.

Program History & Vision

Program History

The Oregon Tech Radiologic Science (RDSC) program was founded as a certificate program in 1952, it evolved into an associate degree program then transitioned into the first RDSC bachelorette degree offered in the United States. The program now boasts that every graduate is prepared to take the national registry exam administered by the American Registry of Radiologic Technologists (ARRT) and exceeds the didactic requirements for post-primary imaging modalities (MRI, CT, mammography, and interventional radiography). The senior year is an 11-month externship that is spent in a healthcare facility where students complete a minimum of 125 competency exams as required by the ARRT. In some cases, students can complete the competency exams in a post-primary modality as well; allowing them to be dual certified in general radiography and one of the advanced modalities listed above. By providing this opportunity to our students the RDSC program has been better able to meet industry

needs in rural and urban healthcare facilities in the Pacific Northwest with the versatility of our graduates.

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.

Program Enrollment

The five-year history of enrollment numbers includes the online RDSC degree completion program, so they appear slightly elevated. The on-campus program accepts 48 students each spring from an applicant pool of 85 to 100 students. The attrition rate has been below 5% resulting in a total enrollment of 138 to 144 RDSC students each year. The program limits its enrollment in an attempt to maintain equilibrium between industry needs and graduates produced each year. In the event that industry demand should increase, the faculty would revisit the potential of the program to meet the need.

[*Attachment 1_Enrollment_5_Year_History_by_Major*](#)

Program Graduates

As stated in the program enrollment, the data has been aggregated to include the on-line degree completion graduates. Again, the data demonstrates annual consistency of graduates for past 10 years. This is one of the indicators of program sustainability that the faculty have strove to achieve. Prior to implementing the student selection process the program had cyclical enrollment highs and lows that followed with the same cyclical industrial demand of technologist saturation and need. This equilibrium has been positive for the program, graduates, and industry alike in the opinion of the faculty.

[*Attachment 2_Graduates_10_Year_History_by_Major*](#)

Employment Rates and Salaries

The data indicates the employment success rate at 98% with a median salary of \$50,000/year (n=120). A majority of the data was collected within a month of graduation. Of these graduates 37.5% (45/120) indicated that they are working in an advanced modality or supervisory role in their place of hire. It is antidotal, but the faculty feel that a higher percentage of alumni are practicing in these capacities as this data was collected so near graduation. This meets one of the program objectives to have graduates that are leaders in advanced modalities. The faculty are currently exploring tools that would collect more accurate data at 6, 12, and 24 months' post-graduation to better evaluate alumni success.

[*Attachment 3_Grad_Data_First_Destination_3_Year_History_by_Major*](#)

Pass Rates on Board and Licensure Exam

It is the program goal to have a 100% pass rate on the American Registry of Radiologic Technologists national exam for graduates that actually attempt it. This is a lofty goal but one that we strive for each year. Over the past 10 years only five students that have applied for the examination are not documented as being successful in passing it. Three of these students did not attempt the exam after registering due to various reasons, one of which was accepted into medical school. The other goal for the program is to have each cohort score at or above the national average in five criteria plus the percent of pass rate. The five Criteria are:

- A. Radiation Protection
- B. Equipment Operation and Quality Control
- C. Image Acquisition and Evaluation
- D. Imaging Procedures
- E. Patient Care and Education

Please see for further clarification. While the program has reached these goal over the years, we were not successful in three of these measures in 2016, they were:

- A. Radiation Protection
- B. Equipment Operation and Quality Control
- C. Image Acquisition and Evaluation

This will be addressed in the Closing the Loop Section.

Results of Board or Licensure Exam

[*Attachment 4_ARRT_NationalComparisonReport_2007_2016*](#)

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.

Modifications have been made in five key courses to further strengthen students' learning opportunity.

- RDSC 201 & 202
 - Course material has been rearranged in a more systematic manner to better engage students in the learning process.
 - Test questions are being edited to better align with the ARRT test question format.
- RDSC 272
 - Course material and test questions have been realigned to the ARRT standards.
- RDSC 301
 - The image analysis and lab presentation has been modified to have students evaluate and present until they master the skill set.
- RDSC 410
 - Faculty will research online registry review testing services to assure that we are currently using the service that best meets the Oregon Tech RDSC program needs. There is also consideration to requiring additional use of testing services while the students are on externship.

Changes Implemented

N/A

Assessment Findings

N/A

Program Student Learning Outcomes Assessment Cycle

PROGRAM STUDENT LEARNING OUTCOMES 6-Year Cycle Radiologic Science B.S.	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
OIT-BRSC 2016-17.1 Communication effectively in health care setting.	RDSC 211 RDSC 233 RDSC 410			RDSC 202 RDSC 205 RDSC 211 RDSC 410		
OIT-BRSC 2016-17.12 Demonstrate effective critical thinking and problem solving skills in the healthcare setting.		RDSC 320 RDSC 410			RDSC 320 RDSC 410	
OIT-BRSC 2016-17.3 Demonstrate professional conduct and ethical decision making in the healthcare setting.			RDSC 202 RDSC 205 RDSC 211 RDSC 410			RDSC 202 RDSC 205 RDSC 211 RDSC 410
OIT-BRSC 2016-17.4 Demonstrate teamwork skills while conducting patient procedures.	RDSC 211 RDSC 233 RDSC 410			RDSC 202 RDSC 205 RDSC 211 RDSC 410		
OIT-BRSC 2016-17.5 Demonstrate knowledge of x-ray physics and related math in the medical imaging setting.		RDSC 202 RDSC 410			RDSC 202 RDSC 410	

OIT-BRSC 2016-17.6 Demonstrate diverse perspective in the healthcare setting.			RDSC 205 RDSC 410			RDSC 205 RDSC 410
OIT-BRSC 2016-17.7 Demonstrate effective patient care skills		RDSC 205 RDSC 410			RDSC 205 RDSC 410	
OIT-BRSC 2016-17.8 Demonstrate technical ability in the medical imaging setting.			RDSC 410			RDSC 410
OIT-BRSC 2016-17.9 Demonstrate radiation safety for self, staff, and patients as set forth by the ALARA standard.	RDSC 272 RDSC 410			RDSC 272 RDSC 410		

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-BRSC 2016-17.1 Communication effectively in the health care setting.	
Course/Event	RDSC 211
Legend	P – Practice
Assessment Measure	Direct – Professional Evaluation (Other)
Criterion	80% of students will be rated as "exceptional" or "competency" on their professional evaluation for the communication measure.
Course/Event	RDSC 233
Legend	P – Practice
Assessment Measure	Direct – Professional Evaluation (Other)
Criterion	80% of students will be rated as "exceptional" or "competency" on their professional evaluation for the communication measure.
Course/Event	RDSC 410
Legend	C – Capstone
Assessment Measure	Direct – Externship Evaluation

Criterion	80% of students are rated as "high proficiency" or "proficiency" by their clinical instructor.
Course/Event	Student Exit Survey
Legend	C – Capstone
Assessment Measure	Indirect – Student Exit Survey
Criterion	80% of students rate themselves as "high proficiency" or "proficiency" on the exit survey.

OIT-BRSC 2016-17.4 Demonstrate teamwork skills while conducting patient procedures.	
Course/Event	RDSC 211
Legend	P – Practice
Assessment Measure	Direct – Professional Evaluation (Other)
Criterion	80% of students will be rated as "exceptional" or "competency" on their professional evaluation for the teamwork measure.
Course/Event	RDSC 233
Legend	P – Practice
Assessment Measure	Direct – Professional Evaluation (Other)
Criterion	80% of students will be rated as "exceptional" or "competency" on their professional evaluation for the communication measure.
Course/Event	RDSC 410
Legend	C – Capstone
Assessment Measure	Direct – Externship Evaluation
Criterion	80% of students are rated as "high proficiency" or "proficiency" by their clinical instructor.
Course/Event	Student Exit Survey
Legend	C – Capstone
Assessment Measure	Indirect – Student Exit Survey
Criterion	80% of students rate themselves as "high proficiency" or "proficiency" on the exit survey.

OIT-BRSC 2016-17.9 Demonstrate radiation safety for self, staff, and patients as set forth by the ALARA standard.	
Course/Event	RDSC 272
Legend	P – Practice
Assessment Measure	Direct – Course Grade (Other)
Criterion	80% of students pass RDSC 272 - Radiation Protection with a minimum course grade of 84% (B).
Course/Event	RDSC 410
Legend	C – Capstone

Assessment Measure	Direct – Externship Evaluation
Criterion	80% of students are rated as "high proficiency" or "proficiency" by their clinical instructor.
Course/Event	Student Exit Survey
Legend	C – Capstone
Assessment Measure	Indirect – Student Exit Survey
Criterion	80% of students rate themselves as "high proficiency" or "proficiency" on the exit survey.

Analysis of Results

OIT-BRSC 2016-17.1 Communication effectively in the health care setting.	
Criterion	Met
Summary	After reviewing the PSLO #1 data from the Professional Evaluations, Senior Exit Survey, and the industry professional CI Survey, the faculty felt that the programmatic goal to meet or exceed expectations in communication were met.
Improvement Narrative	N/A
<i>Attachment 5_Exit_CI_Survey_Communication</i>	

OIT-BRSC 2016-17.4 Demonstrate teamwork skills while conducting patient procedures.	
Criterion	Met
Summary	After reviewing the PSLO #4 data from the Professional Evaluations, Senior Exit Survey, and the industry professional CI Survey, the faculty felt that the programmatic goal to meet or exceed expectations in teamwork were met.
Improvement Narrative	N/A
<i>Attachment 6_Exit_CI_Survey_Teamwork</i>	

OIT-BRSC 2016-17.9 Demonstrate radiation safety for self, staff, and patients as set forth by the ALARA standard.	
Criterion	Met
Summary	After reviewing the PSLO #9 data from successful completion of RDSC 272, Senior Exit Survey, and the industry professional CI Survey the, faculty felt that the programmatic goal to meet or exceed expectations in radiation protection and ALARA were met.
Improvement Narrative	N/A

References

Program Assessment Coordinator: Don McDonnell, Associate Professor, Medical Imaging Technology

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%
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



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	% 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

National Comparison Report

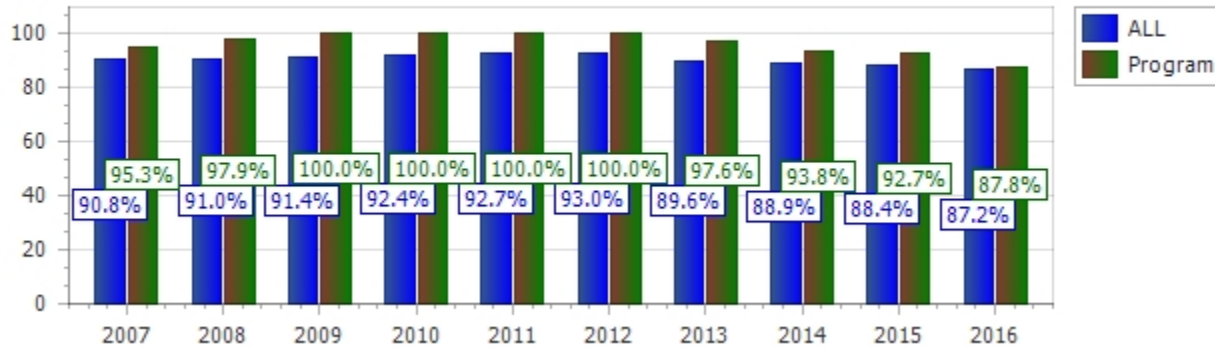
SCHOOL OF RADIOGRAPHY
 OREGON INSTITUTE OF TECHNOLOGY
 DONALD K MC DONNELL
 3201 CAMPUS DR
 KLAMATH FALLS, OR 97601-8801

School ID: 7152
 Date Generated: 12/7/2017

Report based on dates from 01/2007 through 12/2016

Calendar		Number	Section Means					Total	Percentile	
Year	Group	Candidates	A	B	C	D	E	Mean	Rank	% Pass
2007	ALL	14142	8.7	8.3	8.3	8.4	8.8	84.7	-	90.8
2007	Program	43	8.9	8.5	8.7	8.7	9.1	87.5	78	95.3
2008	ALL	14210	8.6	8.2	8.4	8.4	8.8	84.6	-	91.0
2008	Program	48	9.2	8.7	9.2	8.8	9.1	90.0	88	97.9
2009	ALL	13762	8.6	8.2	8.4	8.4	8.9	84.8	-	91.4
2009	Program	45	8.7	8.5	8.8	8.6	9.2	87.3	72	100.0
2010	ALL	13550	8.7	8.2	8.3	8.5	8.7	84.9	-	92.4
2010	Program	50	9.1	8.8	8.8	8.8	9.3	89.2	84	100.0
2011	ALL	12542	8.7	8.2	8.3	8.5	8.8	85.1	-	92.7
2011	Program	41	9.1	8.9	8.9	9.2	9.3	90.9	92	100.0
2012	ALL	12338	8.6	8.4	8.4	8.7	8.6	85.3	-	93.0
2012	Program	39	8.8	8.8	8.7	9.1	9.2	89.1	84	100.0
2013	ALL	11684	8.6	8.2	8.1	8.5	8.6	84.1	-	89.6
2013	Program	42	8.8	8.4	8.4	8.8	8.9	86.8	72	97.6
2014	ALL	11831	8.5	8.1	8.2	8.5	8.5	83.8	-	88.9
2014	Program	48	8.7	8.1	8.3	8.7	8.8	85.3	60	93.8
2015	ALL	11485	8.4	8.0	8.2	8.4	8.6	83.7	-	88.4
2015	Program	41	8.6	8.2	8.3	8.7	9.0	85.8	64	92.7
2016	ALL	11740	8.4	8.2	8.3	8.4	8.3	83.3	-	87.2
2016	Program	49	8.1	7.8	8.2	8.6	8.4	82.7	45	87.8

Program vs Total Pass Percentage



NOTES:

- (1) A percentile rank indicates the percentage of scores at or below the corresponding mean scaled score. Percentile ranks are rounded to the nearest whole number.
- (2) These percentile ranks were not obtained by comparing your school mean to all other school means, but rather by comparing the mean score of your program’s graduates to the distribution of scores for all graduates.
- (3) Mean scores and percentile ranks based on few candidates are not stable and should be interpreted with caution.
- (4) To ensure student confidentiality, dashes indicate either too few candidates, or data is not yet available, or does not apply.
- (5) Content specifications that serve as the basis for section scores are periodically revised. Consult the following link to see the content specifications for the past several years:
[Content Specifications](#)

END OF REPORT

2016-17 Student Exit Survey - Radiologic Science B.S.

Program Student Learning Outcomes - Radiologic Science B.S. Please rate your proficiency in the following areas:

	Category	High Proficiency		Proficiency		Some Proficiency		Limited Proficiency		Total
PSLO #5	Communicating effectively in the health care setting.	31.00%	31	42.31%	11	0.00%	0	0.00%	0	42

Program Student Learning Outcomes - Radiologic Science B.S. How much has your experience at Oregon Tech contributed to your knowledge, skills, and personal development in these areas?

	Category	Very Much		Quite a Bit		Some		Very Little		Total
PSLO #5	Communicating effectively in the health care setting.	64.29%	27	26.19%	11	7.14%	3	2.38%	1	42

2016-17 RDSC Clinical Instructor Evaluation of OIT Rad Science Program

December 13th 2017, 9:46 am PST

In your opinion, how well did the Oregon Tech RDSC program prepare your extern student(s) in the following subjects?

Question	High Proficiency		Proficiency		Some Proficiency		Limited Proficiency		Total
Communication effectively in the health care setting.	6.82%	3	13.43%	9	13.33%	2	0.00%		14

2016-17 Student Exit Survey - Radiologic Science B.S.

Program Student Learning Outcomes - Radiologic Science B.S. Please rate your proficiency in the following areas:

	Category	High Proficiency		Proficiency		Some Proficiency		Limited Proficiency		Total
PSLO #7	Demonstrate teamwork skills while conducting patient procedures.	36.00%	36	23.08%	6	0.00%	0	0.00%	0	42

Program Student Learning Outcomes - Radiologic Science B.S. How much has your experience at Oregon Tech contributed to your knowledge, skills, and personal development in these areas?

	Category	Very Much		Quite a Bit		Some		Very Little		Total
PSLO #7	Demonstrate teamwork skills while conducting patient procedures.	61.90%	26	33.33%	14	4.76%	2	0.00%	0	42

2016-17 RDSC Clinical Instructor Evaluation of OIT Rad Science Program

December 13th 2017, 9:46 am PST

In your opinion, how well did the Oregon Tech RDSC program prepare your extern student(s) in the following subjects?

Question	High Proficiency		Proficiency		Some Proficiency		Limited Proficiency		Total
Demonstrate teamwork skills while conducting patient procedures.	15.91%	7	5.97%	4	20.00%	3	0.00%		14

2016-17 Student Exit Survey - Radiologic Science B.S.

Program Student Learning Outcomes - Radiologic Science B.S. Please rate your proficiency in the following areas:

	Category	High Proficiency		Proficiency		Some Proficiency		Limited Proficiency		Total
PSLO #9	Demonstrate radiation safety for self, staff, and patients as set forth by the ALARA standards.	33.00%	33	34.62%	9	0.00%	0	0.00%	0	42

Program Student Learning Outcomes - Radiologic Science B.S. How much has your experience at Oregon Tech contributed to your knowledge, skills, and personal development in these areas?

	Category	Very Much		Quite a Bit		Some		Very Little		Total
PSLO #9	Demonstrate radiation safety for self, staff, and patients as set forth by the ALARA standards.	83.33%	35	16.67%	7	0.00%	0	0.00%	0	42

2016-17 RDSC Clinical Instructor Evaluation of OIT Rad Science Program

December 13th 2017, 9:46 am PST

In your opinion, how well did the Oregon Tech RDSC program prepare your extern student(s) in the following subjects?

Question	High Proficiency		Proficiency		Some Proficiency		Limited Proficiency		Total
Demonstrate radiation safety for self, staff, and patients as set forth by the ALARA standard.	11.36%	5	13.43%	9	0.00%	0	0.00%	0	14