Oregon TECH

Diagnostic Medical Sonography Program Assessment Report
Submission: October 31, 2018
to Office of Academic Excellence

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

Section I – Diagnostic Medical Sonography Program Mission and Educational Objectives

A. Program Mission
The mission of the Bachelor of Science in Diagnostic Medical Sonography (DMS) program at Oregon Institute of Technology to provide the residents of Oregon, the Pacific Northwest and surrounding regions with graduates possessing knowledge and behaviors to earn Bachelor of Science degrees in Diagnostic Medical Sonography, the clinical skills necessary to become competent, ethical and caring imaging professionals, and the foundation for life-long learning.

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

The mission, objectives, and student learning outcomes for the DMS program are reviewed annually by the department at the fall retreat during convocation. They are also reviewed annually by the program's Diagnostic Medical Sonography Advisory Council.

B. Mission Alignment
The Diagnostic Medical Sonography degree provides an intimate, hands-on learning environment, focusing on application of theory to practice. Our student success is based on knowledge, skills, abilities, and postgraduate employment. These student success outcomes are measured through programmatic outcomes and submitted to professional accreditation Joint Review Committee on Education in Diagnostic Medical Sonography (JRCDMS). The DMS program offers statewide educational opportunities for the emerging needs of Oregonians and provides information and technical expertise to state, national and international constituents.

C. *Additional Information*
Oregon Institute of Technology's, Diagnostic Medical Sonography program serves students from the state of Oregon, as well as neighboring states. Graduates are often employed within the state of Oregon upon completion of the degree, which is also the reasoning there are the number of clinical sites within the state. Many are clinical affiliates that continue the affiliation to be able to host the students throughout the clinical externship and then employ that student upon completion of the degree. Physicians benefit as well, as Oregon Tech graduates often are gainfully employed by a medical facility in which the physician is also associated. The rigor of the Oregon Tech programs provides a high standard of training in the ultrasound professions which not only results in the graduates being highly sought after, but also patients benefit through the receipt of quality healthcare.
Oregon Institute of Technology is regionally accredited by the Northwest Commission on Colleges and Universities (NWCCU). Oregon Tech graduates have a high pass rate board certification American Registry of Diagnostic Medical Sonographers (ARDMS) board exams. Additionally, the Diagnostic Medical Imaging (DMS) program is accredited by CAAHEP (Commission on Accreditation of Allied Health Educational Programs http://www.caahep.org./.

- Students are able to join the following professional societies:
- American Registry for Diagnostic Medical Sonography (ARDMS)
- Society of Diagnostic Medical Sonography

Our DMS students are granted a yearlong externship, students in which they function in the capacity of a student sonographer. They may have the opportunity to attend educational presentations, such as lectures, grand rounds and seminars, relevant to a wide array of conditions and professional development of healthcare providers. By providing such opportunities, we hope to contribute to the students' professional growth, education and competence.

The Diagnostic Medical Sonography program shares the same admission criteria including basic science curriculum during the pre-requisite year and a competitive selection process as our other ultrasound programs on campus. Students are admitted into the professional programs as sophomores and complete didactic and laboratory courses on the Oregon Tech campus. They also gain exposure to the patient care setting through clinical observations at Klamath Falls community hospital, Sky Lakes Medical Center. The sophomore and junior years of the curriculum offer students the theoretical knowledge of disease processes and hands-on exposure to the diagnostic testing protocols appropriate for the profession. General education courses required for a baccalaureate degree are also completed during this period of time, unless students have met those requirements with transfer credit. Upon completion of the junior year on campus, students embark on the 11 month clinical externship in which students are placed via lottery in a clinical setting appropriate for the degree program in which they are enrolled. This is considered the senior year and the capstone for the programs as the students apply the didactic and laboratory skills gained on campus in the patient setting. Most students complete the entire clinical externship at one location. In the event specific exam types are not performed in large enough numbers for ample exposure for the student, additional clinical sites within the geographical location of the main externship site may be utilized.

Students are required to secure their own housing in the geographic location in which they will be completing the clinical externship year. They also must travel to the location at the student's cost. In some cases, this means the student will be physically moving hundreds of miles to the location.
Students also are required to pay tuition for four quarters rather than a typical three quarter academic year, which does add to the financial burden they acquire by the end of the degree. Many of the students enrolled in the programs are Oregonians and therefore would prefer to complete the externship year closer to home. All students are well aware of the externship requirement prior to entry into the program. To date there have not been clinical shortages, in fact sites are often calling to become an affiliate.

Section II – Program Educational Objectives

A. Program Educational Objectives
The following objectives are what the faculty expects graduates from the DMS program to be able to accomplish.

- Employ diagnostic sonographic imaging techniques, critical thinking skills, effective communication skills, and professional judgment.
- Effectively apply ergonomically correct scanning techniques.
- Successfully complete nationally recognized credential examinations.
- Develop a dedication to independent life-long learning and professional contributions.

B. Program Student Learning Outcomes

- Effective oral, visual, and written communication skills.
- The ability to work effectively in teams.
- The ability to provide basic patient care and comfort while utilizing ethical, professionalism and HIPAA guidelines.
- Knowledge and understanding of human gross and sectional anatomy relative to normal and abnormal sonographic imaging.
- Knowledge and understanding of human physiology, pathology and pathophysiology.
- Knowledge and understanding of ultrasound physical principles and instrumentation.
- Knowledge of sonographic biological effects, proper application of sonographic instrumentation relative to imaging and image quality.
- Appropriate ergonomic scanning applications.
- An understanding of diverse cultural and humanistic traditions in the global society.

C. Other Learning Opportunities
1. Annual professional meetings and conferences for sonography students include:

- Society of Diagnostic Medical Sonography (SDMS)
- American Institute of Ultrasound in Medicine (AIUM)
- American College of Educators in Radiologic Technology (ACERT)
- Eugene Ultrasound Society (EUS)
- Other smaller study groups located in San Francisco Bay Area
- Oregon Tech DMS Sonography Advisory Council annual meeting and
- Continuing Medical Education opportunity (CME)
-

The location and financial responsibility remain a challenge for DMS students to attend national conferences. These meetings are held during regularly scheduled instructional terms. Students appreciate the networking and educational benefits of attending these

meetings. Competition opportunities are components of the national conferences of SDMS and ACERT. Presently, international trips are unavailable to DMS students.

2. On-line professional learning opportunities for sonography students include:
- Monthly CME directed readings associated with student SDMS Memberships
- SDMS Webinars are available to students with SDMS Membership

3. All DMS students hold student SDMS memberships and are eligible for these opportunities. The DMS faculty encourages students to participate in these offerings not only for educational benefits, but to develop and promote effective life-long learning behaviors.

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

The Faculty of the Diagnostic Medical Sonography program at Oregon Tech reviewed the following student learning Outcomes and Objectives during 2019-2020 convocation week.

- Effective oral, visual, and written communication skills.
- The ability to work effectively in teams.
- The ability to provide basic patient care and comfort while utilizing ethical, professionalism and HIPAA guidelines.
- Knowledge and understanding of human gross and sectional anatomy relative to normal and abnormal sonographic imaging.
- Knowledge and understanding of human physiology, pathology and pathophysiology.
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D. Showcase Learning Opportunities
Oregon Institute of Technology is regionally accredited by the Northwest Commission on Colleges and Universities (NWCCU). Oregon Tech graduates have a high pass rate board certification American Registry of Diagnostic Medical Sonographers (ARDMS) board exams. Additionally, the Diagnostic Medical Imaging (DMS) program is accredited by CAAHEP (Commission on Accreditation of Allied Health Educational Programs http://www.caahep.org./.

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Section III – Program Description and History

Program History

The Diagnostic Medical Sonography Program (DMS) began in 1997 and is one of the five Medical Imaging programs offered on the Klamath Falls campus. The DMS program is selective and admits pre-Medical Imaging students into the professional courses at the sophomore level. Due to this selectivity, the program has good graduation retention rates. The 2017 Oregon Tech graduate survey indicated a median entry salary for DMS graduates at $66,924, with twelve graduates reporting.However, the Bureau of Labor Statistics (www.bls.gov) identified Oregon as one of the top 5 paying states with an annual mean wage for Diagnostic Medical Sonographers of $77,500 in June 2018. Oregon Institute of Technology currently offers baccalaureate degrees in three ultrasound programs: Diagnostic Medical Sonography, Echocardiography and Vascular Technology. The Vascular Technology program was first established in 1992 as an option in Medical Imaging Technology. The program resided within the Department of Health Technologies along with Radiologic Science. The Diagnostic Medical Sonography program was established in 1997. At this time the Vascular Technology program was removed as an option in Medical Imaging Technology and became an option in Ultrasound, along with the Diagnostic Medical Sonography program. The department was renamed as the Medical Imaging Technology Department. Reorganization again occurred in 2006, in anticipation of adding the Echocardiography degree. The DMS and Vascular programs became stand-alone degree programs. The Echocardiography program was added in 2007. Today the Medical Imaging Technology Department includes the following baccalaureate degree programs: Radiologic Science, Nuclear Medicine Technology, Diagnostic Medical Sonography, Echocardiography and Vascular Technology.

A. Program Location

Sophomore and junior year students are located on the Klamath Falls campus. The Externship year consists of 11 months hands on experience with our clinical extern medical facilities. Our DMS program has an online option for registered sonographers to earn a bachelor's degree through online learning.

B. Enrollment and Retention Trends

The 2019-220 data presented in the tables below. The Oregon Tech DMS program is rank 8th in the united stated for accredited ultrasound schools. Oregon Institute of Technology, in our Best Ultrasound Tech Schools page at https://www.bestvalueschools.org/ultrasound-tech-schools/.

C. Program Graduates

2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
24	24	24	24	24	24

D. Employment Rates and Salaries

Employed	Continuing Education	Looking for Work	Not Seeking	Median Salary	Success Rate
100%	0	0	0	$34.00 hr	100%

E. Board and Licensure Exam Results

American Registry of Diagnostic Medical Sonographers- Physics	
100% Pass Rate	Class of 2019

American Registry of Diagnostic Medical Sonographers- Abdomen	
100% Pass Rate	Class of 2019

American Registry of Diagnostic Medical Sonographers- OB/GYN	
100% Pass Rate	Class of 2019

F. Industry Relationships

Since 1997 Oregon Tech has maintained a healthy relationship with industry partners. These relationships are support through externship visits, however 2019-2020 impacted travel as a result of COVID. Below is a list of 2019-2020 externship clinical affliates.

Name of Clinical Affiliate	**List the specialties (AB, OB, GYN, VASC, AE, PE) that are performed at this affiliate**	**Enter Clinical Instructor's Name**	**List related credentials for designated CI (*For accepted credentials see Policy 805*)**
Asante Three Rivers	AB	Peter Richard	RDMS (AB) RVT
Bay Area Hospital	AB, OB, GYN	Mike Willman	RDMS (AB, OB/GYN, BR)
		Marion Edden	RDMS (AB, OB/GYN, NE)
Cedars-Sinai Medical Center	AB, OB, GYN	Erinna Rahim	RDMS (AB, OB/GYN, BR)
Central Oregon Radiology Associates	AB, OB, GYN	Joseph Filicetti	RDMS(AB, OB/GYN, BR) RVT
Fairchild Medical Center	AB, OB, GYN	Vivian French	RDMS(AB, NE, OB/GYN)
Good Samaritan Regional Medical Center	AB, OB, GYN	Jennifer Ringwald	RDMS (AB, OB/GYN, BR), RVT
Grande Ronde Hospital	AB, OB, GYN	Cali Taylor	RDMS(AB, OB/GYN) RVT
Kadlec Regional Medical Center	AB, OB, GYN	Ashley Tubbs	RDMS(AB, NE, OB/GYN)
Kaiser Permanente Medical Center Sunnyside	AB, OB, GYN	Michelyn Whiteford	RDMS (AB, OB/GYN, BR), RVT
Legacy Emanual Medical Center	AB, OB, GYN	Alison Hartman	RDMS(AB, OB/GYN)
Legacy Good Samaritan Medical Cnt	AB, OB, GYN	Galina Bell	
Legacy Good Samaritan Medical Cnt	AB, OB, GYN	Erica Robinson	RDMS(AB, OB/GYN) RVT
Legacy Meridan Park Medical Center	AB, OB, GYN	Randy Lawson	RDMS (AB, OB/GYN, BR), RVT
Legacy Mt Hood Medical Center	AB, OB, GYN	Nathan Harden	RDMS (AB, OB/GYN)

Legacy Salmon Creek	AB. OB, GYN	Jeff Plummer	RDMS (AB, OB/GYN) RVT
Mat-Su Regional Medical Center	AB,OB, GYN	Jennifer Mikkelsen	RDMS (AB, OB/GYN, BR) RVT
MD Imaging	AB, OB, GYN	Trish Koon	RDMS (AB, OB, GYN, BR), RVT, NT
NW Perinatal Center	AB, OB, GYN	Leticia Schoonover	RDMS(AB, FE, OB/GYN)
		Beth Darnell	RDMS(AB, FE, OB/GYN)
OHSU	AB, OB, GYN	Jenny Burke	RDMS(AB, OB/GYN)
Oregon Imaging Center	AB, OB, GYN	Claudia Kelley	RDMS (AB, OB/GYN) RDSC
Providence Portland Medical Center	AB, OB, GYN	Kerri McGrath	RDMS (AB, OB/GYN, BR)
		Crystal Rodgers	RDMS(AB, OB/GYN)
Providence Alaska Medical Center	AB, OB, GYN	Mailyn Tweed	RDMS(AB, OB/GYN), RVT
Providence Medford Medical Center	AB, OB, GYN	Gana Vasey	RDMS(AB, NE, OB/GYN)
Providence St. Vincent Medical Center	AB, OB, GYN	Christine Vlasman	RDMS(AB, OB/GYN, BR, FE)
Providence Willamette Falls Medical Center	AB, OB, GYN	Samantha Hopper	RDMS(AB, OB/GYN)
Renown Medical Center	AB, OB, GYN	Erin Melarkey	RDMS(AB, OB/GYN, BR, NE)RVT
Rogue Valley Medical Center	AB, OB, GYN	Nicole Hegdahl	RDMS(AB, OB/GYN)
Sacred Heart Medical Center at Riverbend	AB, OB, GYN	Doug McCraney	RDMS(AB, OB/GYN) RVT
Salem Hospital	AB, OB, GYN	Kristy (Cuevas) Legault	RDMS(AB, OB/GYN, BR)
		Stephanie Johnson	RDMS (AB, OB/GYN, RVT)
Samaritan Albany General Hospital	AB, OB, GYN	Jamie Bodkin	RDMS (AB, OB/GYN, BR)
Silverton Hospital	AB,OB, GYN	Courtney Teigen	RDMS (AB, OB/GYN)
Skagit Valley Hospital	AB, OB, GYN	Ginger Cordray	RDMS(AB, OB/GYN)
Sky Lakes Medical Center	AB, OB, GYN	Kris Harrington	RDMS(AB, BR, OB/GYN,)RDCS
St. Charles Medical Center	AB, OB, GYN	Kimberly Ralls	RDMS(AB, OB/GYN) RVT
St. John Medical Center	AB, OB, GYN	Paula Standley	RDMS(AB, OB/GYN)
St. Mary Medical Center	AB, OB, GYN	Toni Narum	RDMS(AB,BR,OB/GYN,AE) RDSC, RVT

St. Patrick Hospital and Health Sciences Center	AB, OB, GYN	Brooke Sargent	RDMS (AB, OB/GYN, BR), RVT
Yakima Valley Memorial Hospital	AB, OB, GYN	Ashley Carlsen	RDMS (AB, OB/GYN, BR), RVT

G. Oregon Tech Diagnostic Medical Sonography Advisory Board Meeting

Date: 5/01/2019

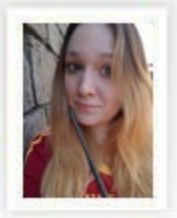
Member Name
Carol Mick
Brenda Mick
Maddison Bean
Nagi G Naganathan
Robyn Cole
Arielle Metz
Bobbi Kowash
Sarah Brown
Galina Bell
Brian Delegard
Michelyn Goetz
Nicole Hegdahl
Patricia Koon
Kerri McGrath
Michelyn Whiteford
Sarah Kill
Courtney Trigram
Brooke Sargent
Paula J. Standley
Ashley Strohn
Marie Vasey
Brian Leishman

H. Showcase Learning Experiences

Met to view the previous 2018-2019 assessment conclusions items and discussed how to integrate suggestions from industry.

I. Success Stories – Quotes From Success Students

Ryann Cuthbertson
Student, Class of 2019
Major(s): Diagnostic Medical Sonography
I am so grateful for the small class sizes, and our close relationship to our instructors and classmates.



Tanja Coomes
Student, Class of 2019
Major(s): Diagnostic Medical Sonography
I love the hands-on experience I get here! As a DMS student we use the machines daily.

Veronica Norris
Student, Class of 2018
Major(s): Diagnostic Medical Sonography
I think that general ultrasound best suits my skill set and I love the science behind ultrasound...

J. Program Changes
The Diagnostic Medical Sonography B.S. has one-curriculum programmatic changes from AY 2019-2020 due to formal programmatic assessment data. The programmatic decision dropped the DMS 342 Adult Echocardiogram course from the DMS curriculm and add DMS 375 Fetal Echocardiogram course to satisfy industry skill necessities.

Section IV – Program Education Objectives and Program Student Learning Outcomes (PSLOs)

A. Program Education Objectives
From these objectives stem a number of specific and measurable outcomes. In addition to being more specific, the outcomes state what students should be able to demonstrate while in the DMS program and provide evidence that the objectives are also being met. Upon graduating from the DMS program at Oregon Tech, students should possess:

a) an ability to use effective oral, visual, and written communication skills
b) an ability to work effectively in teams
c) an ability to provide basic patient care and comfort while utilizing ethical, professionalism and HIPAA guidelines
d) an ability to provide basic patient care and comfort while utilizing ethical, professionalism and HIPAA guidelines
e) an ability to gain the knowledge and understanding of human gross and sectional anatomy relative to normal and abnormal sonographic imaging
f) an understanding and knowledge of human physiology, pathology and pathophysiology
g) knowledge and understanding of ultrasound physical principles and instrumentation
h) knowledge of sonographic biological effects, proper application of sonographic instrumentation relative to imaging and image quality
i) an ability to apply appropriate ergonomic scanning applications.
j) an ability to understand of diverse cultural and humanistic traditions in the global society

B. Program Student Learning Outcomes
Graduates from the DMS program will be able to demonstrate:
1. Effective oral, visual, and written communication skills.
2. The ability to work effectively in teams.
3. The ability to provide basic patient care and comfort while utilizing ethical, professionalism and HIPAA

guidelines.
4. Knowledge and understanding of human gross and sectional anatomy relative to normal and abnormal sonographic imaging.
5. Knowledge and understanding of human physiology, pathology and pathophysiology.
6. Knowledge and understanding of ultrasound physical principles and instrumentation.
7. Knowledge of sonographic biological effects, proper application of sonographic instrumentation relative to imaging and image quality.
8. Appropriate ergonomic scanning applications.
9. An understanding of diverse cultural and humanistic traditions in the global society.

C. Origin and External Validation
The program objectives are reviewed annually by the programmatic advisory board. The JRCDMS requires annual submission of outcomes report and a 5 year reaccreditation site visit and review is conducted to maintain accreditation status with CAAHEP.

The Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS) is a nonprofit organization in existence to establish, maintain and promote quality standards for educational programs in Diagnostic Medical Sonography (DMS). Since 1983, the organization has provided a mechanism of committee review to recognize educational programs throughout the United States that instruct students in the disciplines related to DMS through education consistent with standards for entry into practice.

The mission of the JRC-DMS is to ensure
quality sonography education that serves the public.

The JRC-DMS is a member of the Commission on Accreditation of Allied Health Education Programs (CAAHEP), the largest programmatic accreditor in the health sciences field. CAAHEP assures oversight and due process to all programs that participate in its system of accreditation. The CAAHEP Board of Directors acts upon the recommendations of the JRC-DMS, confirming that appropriate procedures have been followed and that accreditation standards are being applied consistently and equitably when assessing applicant educational programs.

Section V – Diagnostic Medical Sonography Curriculum Map
The assessment report concluded that the map resulted in minimal change, however this continual recalibration of our map will be considered each assessment cycle.

Diagnostic Medical Sonography B.S. Student Learning Outcomes Table

F – Foundation
P – Practice
C – Capstone

COURSE	PSLO 1	PSLO 2	PSLO 3	PSLO 4	PSLO 5	PSLO 6	PSLO 7	PSLO 8	PSLO 9	ESLO 1 - Communication	ESLO 2 – Inquiry & Analysis	ESLO 3 – Ethical Reasoning	ESLO 4 – Quantitative Literacy	ESLO 5 - Teamwork	ESLO 6 – Diverse Perspectives
BIO 231					F										
CHE 101															
CHE 104															
MATH 111															
MIT 103															
BIO 232												F			
MATH 112															
WRI 121															
HUM															
SOC															
BIO 200															
BIO 233															
PSY 201/02/03															
SPE 111	F									F					
WRI 122															
BIO 335			P												
DMS 223	P									P	F	P			
DMS 252		P													
PHY 217															

DMS 224		F		F										F	
DMS 235															F/P
DMS 253															
MIT 231					F										
WRI 227															
DMS 225			F			F							F	P	
DMS 234															
DMS 254															
MIT 232						P									
DMS 346													P		
DMS 352								F							
DMS 365				P			P				P				
DMS 337					P										
SPE 321															
BUS 316/17/13															
DMS 375															
DMS 353								P							
DMS 370		P	P												
DMS 343															
DMS 354									P						
DMS 373															
DMS 388									F/P						
DMS 430	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

Section VI – Assessment Cycle of Student Learning Outcomes

Along with reassessing the curriculum map each year, the DMS department will collect artifact from a variety of our required courses.

Diagnostic Medical Sonography B.S. Cycle for PSLOs and ESLOs

PROGRAM STUDENT LEARNING OUTCOMES 3-Year Cycle Diagnostic Medical Sonography B.S.	2019-20	2020-21	2021-22
OIT-BSON 2019-20. 1 Effective oral, visual, and written communication skills.	DMS 343 2 Directs 1 Indirect Student Exit Survey		
OIT-BSON 2019-20. 2 The ability to work effectively in teams.	DMS 370 2 Directs 1 Indirect Student Exit Survey		
OIT-BSON 2019-20. 3 The ability to provide basic patient care and comfort while utilizing ethical, professionalism and HIPAA guidelines.	DMS 335 2 Directs 1 Indirect Student Exit Survey		
OIT-BSON 2019-20. 4 Knowledge and understanding of human gross and sectional anatomy relative to normal and abnormal sonographic imaging.			DMS 354 2 Directs 1 Indirect Student Exit Survey
OIT-BSON 2019-20. 5 Knowledge and understanding of human physiology, pathology and pathophysiology.			DMS 365 2 Directs 1 Indirect Student Exit Survey
OIT-BSON 2019-20. 6 Knowledge and understanding of ultrasound physical principles and instrumentation.	MIT 231 2 Directs 1 Indirect Student Exit Survey		
OIT-BSON 2019-20. 7 Knowledge of sonographic biological effects, proper application of sonographic instrumentation relative to imaging and image quality.	DMS 353 2 Directs 1 Indirect Student Exit Survey		
OIT-BSON 2019-20. 8 Appropriate ergonomic scanning applications.			DMS 353 2 Directs 1 Indirect Student Exit Survey

OIT-BSON 2019-20. 9 An understanding of diverse cultural and humanistic traditions in the global society.			DMS 388 2 Directs 1 Indirect Student Exit Survey
ESLO 1- Communication			
ELSO 2 – Inquiry & Analysis			
ELSO 3 – Ethical Reasoning			
ELSO 4 – Quantitative Literacy			
ELSO 5 – Teamwork	X		
ELSO 6 – Diverse Perspectives			

Section VII – Methods for Assessment

OIT-BSON 2019-20. 1 Effective oral, visual, and written communication skills.	
Course/Event	DMS 343
Legend	F/P– Foundation
#1 Assessment Measure	Direct – Exam Questions Multiple Choice Type
#2Assessment Measure	Direct – Exam Questions Multiple Choice Type
Criterion	N/A
Course/Event	Student Exit Survey
Legend	C – Capstone
#3 Assessment Measure	Indirect – Student Exit Survey
Criterion	N/A

OIT-BSON 2019-20. 2 The ability to work effectively in teams.	
Course/Event	DMS 370
Legend	P – Practice

#1 Assessment Measure	Direct – Exam Questions Multiple Choice
#2 Assessment Measure	Direct- Exam Questions Multiple Choice
Criterion	N/A
Course/Event	DMS 430
Legend	C – Capstone
#3 Assessment Measure	Indirect – Student Exit Survey
Criterion	N/A

OIT-BSON 2019-20. 3 The ability to provide basic patient care and comfort while utilizing ethical, professionalism and HIPAA guidelines.	
Course/Event	DMS 335
Legend	F – Foundation
#1 Assessment Measure	Direct – Exam Questions Multiple Choice
#2 Assessment Measure	Direct- Exam Questions Multiple Choice
Criterion	N/A
Course/Event	Student Exit Survey
Legend	C – Capstone
#3 Assessment Measure	Indirect – Student Survey
Criterion	80% with a rating of 4.0 or better

Analysis of Results

OIT-BSON 20119-20.1 Effective oral, visual, and written communication skills.	
Criterion	Met
Summary	Board pass 100%
Improvement Narrative	N/A

OIT-BSON 2019-20. 2 The ability to work effectively in teams.	
Criterion	Met
Summary	Board pass 100%
Improvement Narrative	N/A

OIT-BSON 2019-18. 3 The ability to provide basic patient care and comfort while utilizing ethical, professionalism and HIPAA guidelines.	
Criterion	Met
Summary	Board pass 100%
Improvement Narrative	N/A

OIT-BSON 2019-20.1 Effective oral, visual, and written communication skills.

Assessment Measure # 1- PSLO 1: DMS 343 Winter 2019 Written/Oral Exam

OIT-BSON 2019-20. 1 Effective oral, visual, and written communication skills.

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results
Content A variety of credible and appropriate sources used. Supporting materials relate in an exceptional way to a focused thesis. Informs or persuades.	**Project Rubric**	1-4 Scale, % at 3 or 4	80% at 3 or 4	90%
Organization Organizational pattern is compelling and moves audience through speech with ease. Introduction draws in the audience and conclusion is satisfying. Main points are smoothly connected with transitions.	**Project Rubric**	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Style Thorough understanding of audience regarding topic and purpose. Clear enthusiasm and passion for topic.	**Project Rubric**	1-4 Scale, % at 3 or 4	80% at 3 or 4	90%

Speech given within time constraints.				
Delivery Effective use of gestures, eye contact, vivid language, and voice to add interest to speech. Poised with use of notes for reference only. No oral fillers and nonverbal distractions.	**Project Rubric**	1-4 Scale, % at 3 or 4	80% at 3 or 4	90%
Visuals Well-designed and documented visuals that clarify speech, create interest, and hold attention of the audience. Visuals are sufficiently discussed and effectively integrated into speech.	**Project Rubric**	1-4 Scale, % at 3 or 4	80% at 3 or 4	95%

Assessment Measure # 2- PSLO 1: DMS 343 Winter 2019 Written Exam

OIT-BSON 2019-20. 1 Effective oral, visual, and written communication skills.

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results
Style	Project Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Grammar	Project Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Formatting	Project Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Content	Project Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	90%
Resources	Project Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	90%
References	Project Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Critical Thinking	Project Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	90%

Assessment Measure # 3- PSLO 1: DMS 430 Student Exit Survey

OIT-BSON 2019-20. 1 Effective oral, visual, and written communication skills.

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results
Oral	Grading Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Written	Grading Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Visual	Grading Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%

OIT-BSON 2019-20. 2 The ability to work effectively in teams.

Assessment Measure # 1- PSLO 2: DMS 370 Winter 2019 Written Pathology Exam

OIT-BSON 2017-18. 2 The ability to work effectively in teams.

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results
Achieves goal/purpose	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Assumes roles & responsibilities	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Communicates effectively	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	90%
Reconciles disagreements	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	90%
Shares work appropriately	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	90%
Develops strategies/actions	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Cultural adaption	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%

Assessment Measure # 2- PSLO 2: DMS 370 Winter 2019 Written Exam

OIT-BSON 2019-20. 2 The ability to work effectively in teams.

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results
Achieves goal/purpose	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Assumes roles & responsibilities	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%

Communicates effectively	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Reconciles disagreements	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	90%
Shares work appropriately	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Develops strategies/actions	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Cultural adaption	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	90%
Assessment Measure # 3- PSLO 2: DMS 430 Student Exit Survey				
OIT-BSON 2019-20. 2 The ability to work effectively in teams.				
Performance Criteria	**Assessment Methods**	**Measurement Scale**	**Minimum Acceptable Performance**	**Results**
Achieves goal/purpose	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Assumes roles & responsibilities	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Communicates effectively	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Reconciles disagreements	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Shares work appropriately	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Develops strategies/actions	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%
Cultural adaption	OIT Team & Group Work Rubric	1-4 Scale, % at 3 or 4	80% at 3 or 4	100%

OIT-BSON 2019-20. 3 The ability to provide basic patient care and comfort while utilizing ethical, professionalism and HIPAA guidelines.

Assessment Measure # 1- PSLO 3: DMS 335 Exam Questions				
OIT-BSON 2019-20. 3 The ability to provide basic patient care and comfort while utilizing ethical, professionalism and HIPAA guidelines.				
Performance Criteria	**Assessment Methods**	**Measurement Scale**	**Minimum Acceptable Performance**	**Results**
HIPAA	Final Exam	% scale per # of questions	80% with 80% or higher	100%
Anticipate patient needs	Final Exam	% scale per # of questions	80% with 80% or higher	100%

Universal precautions and Infection Control	Final Exam	% scale per # of questions	80% with 80% or higher	100%
Scope of Practice	Final Exam	% scale per # of questions	80% with 80% or higher	100%

Assessment Measure # 2- PSLO 3: DMS 335 Student Direct Observation

OIT-BSON 2019-20. 3 The ability to provide basic patient care and comfort while utilizing ethical, professionalism and HIPAA guidelines.

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results
Knowledge of code	OIT Ethics Rubric	1-4 scale, % at 3 or 4	80% at 3 or 4	100%
Describes issues	OIT Ethics Rubric	1-4 scale, % at 3 or 4	80% at 3 or 4	100%
Describes parties	OIT Ethics Rubric	1-4 scale, % at 3 or 4	80% at 3 or 4	100%
Describes alternatives	OIT Ethics Rubric	1-4 scale, % at 3 or 4	80% at 3 or 4	100%
Benefits/risks of choice	OIT Ethics Rubric	1-4 scale, % at 3 or 4	80% at 3 or 4	100%

Assessment Measure # 3- PSLO 3: DMS 430 Extern Site Survey

OIT-BSON 2019-20. 3 The ability to provide basic patient care and comfort while utilizing ethical, professionalism and HIPAA guidelines.

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results
Quality of Work	Extern Site Survey	1-4 scale, % at 3 or 4	80% at 3 or 4	100%
Comprehension of Examinations (Procedures)	Extern Site Survey	1-4 scale, % at 3 or 4	80% at 3 or 4	100%
Performance Under Pressure	Extern Site Survey	1-4 scale, % at 3 or 4	80% at 3 or 4	100%
Interpersonal Relationships: Patients	Extern Site Survey	1-4 scale, % at 3 or 4	80% at 3 or 4	100%
Knowledge of Policies, Procedures, Protocol	Extern Site Survey	1-4 scale, % at 3 or 4	80% at 3 or 4	90%

Section VIII- Diagnostic Medical Sonography Assessment Activity

Activity: Throughout this assessment cycle the DMS faculty used all the objectives identified and provided program alignment with programmatic outcomes and mission.

Rubric: The activities were scored and evaluated by the DMS faculty separate from course grade. The rubrics provides illustration of the performance criteria, assessment methods, measurement scale, minimum acceptable performance, and results.

Sample: 100% of the student cohort class was used to gather data.

Reliability: The data was gathered from multiple courses and means.

Multiple Sites: n/a

Performance Target: The results of our national registry have been 100% in the past 10 years, thus no performance targets have been modified.

Performance Level: Results are presented, and they directly relate to objectives. The desired results for objectives, are clearly presented, and were derived statistical analyses, as appropriate.

History of Results: Annual JRCDMS accreditation and 6 year reaccreditation validates the historical success of the DMS program at Oregon Tech.

Faculty Discussion: All qualitative and quantitative data/information was provided to all program faculty, mode and details of communication at conclusion of our programmatic convocation meeting. In addition, the DMS program information shared with our clinical affiliates and advisory board members as meeting minutes.

Interpretation: A complete and clear narration and analysis of the assessment results were found in the DMS faculty, advisory board, and annual clinical instructors meeting minutes. Explanations of results seem practical and at time no changes are needed programmatically.

Section IX. Evidence of Improvement in Student Learning.

The 2019-2020 assessment revealed no charges were necessary. The program will continue its mission to provide skilled teaching methods.

Section X. Data-driven Action Plans: Changes Resulting from Assessment AKA Closing the Loop

A. Longitudinal Tracking

The outcomes data suggests that the DMS program is doing a great job training compete sonographers. The assessment report suggests that we are in a process to track additional ways to improve our programmatic assessment using meaningful disciplinary methods.

Strengths: Students demonstrated outstanding performance in all criteria for this assessment year.

B. Programmatic Weakness

None at this time.

C. Programmatic Actions

No action is needed at this time.

D. Continuing Conversations

DMS has emphasized the need to hire more faculty to handle the course load offered both on campus and online. Ultimately, while these conversations center on the allocation of financial and institutional resources, our ability to act on them is limited to hiring requests. Faculties have graciously given back to the program and institution by teaching 16 years in overload.