2021-22
Diagnostic Medical Sonography Program Assessment Report
Submission: October 31, 2022
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.

D. 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.

E. 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.

F. 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.

G. 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 2021-2022 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.
- Knowledge and understanding of ultrasound physical principles and instrumentation.
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- Appropriate ergonomic scanning applications.
- An understanding of diverse cultural and humanistic traditions in the global society.

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./.

- Students are able to join the following professional societies:
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Section II – 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 2021-2022 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	2020-21	2021-22
24	24	24	24	24	24	24	23

D. Employment Rates and Salaries

Employed	Continuing Education	Looking for Work	Not Seeking	Median Salary	Success Rate
100%	0	0	0	$36.00 hr	100%

E. Board and Licensure Exam Results

American Registry of Diagnostic Medical Sonographers- Physics	
100% Pass Rate	Class of 2021

American Registry of Diagnostic Medical Sonographers- Abdomen	
100% Pass Rate	Class of 2021

American Registry of Diagnostic Medical Sonographers- OB/GYN	
100% Pass Rate	Class of 2021

F. Industry Relationships

Since 1997 Oregon Tech has maintained a healthy relationship with industry partners. These relationships are support through externship

Good Samaritan Regional Medical Center	973300	AB, OB, GYN	Tiffany Lebow
Grande Ronde Hospital	97850	AB, OB, GYN	Cali Taylor
Kadlec Regional Medical Center	99352	AB, OB, GYN	Ashley Tubbs
Kaiser Permanente Medical Center Sunnyside	97015	AB, OB, GYN	Michelyn Whiteford
Legacy Emanual Medical Center	97227	AB, OB, GYN	Alison Zimmerman
Legacy Good Samaritan Medical Center	97005	AB, OB, GYN	Tiffany Lebow
Legacy Meridan Park Medical Center	97062	AB, OB, GYN	Sarah Brown
Legacy Mt Hood Medical Center	97030	AB, OB, GYN	Nathan Harden
Legacy Salmon Creek	98686	AB. OB, GYN	Nate Chase
Mat-Su Regional Medical Center	99645	AB,OB, GYN	Jennifer Mikkelsen
MD Imaging	96001	AB, OB, GYN	Trish Koon
NW Perinatal Center	97213	AB, OB, GYN	Leticia Schoonover
Oregon Health Science University	97239	AB, OB, GYN	Benjamin Reed
Oregon Imaging Center	97477	AB, OB, GYN	Claudia Kelley
Providence Portland Medical Center	97231	AB, OB, GYN	Kerri McGrath
			Crystal Rodgers
Providence Alaska Medical Center	99508	AB, OB, GYN	Jennifer Bartley
Providence Medford Medical Center	97504	AB, OB, GYN	Gana Vasey
Providence St. Vincent Medical Center	97225	AB, OB, GYN	Sara Davis
Providence Willamette Falls Medical Center	97045	AB, OB, GYN	Samantha Steinke
Renown Medical Center	89502	AB, OB, GYN	Erin Melarkey
Asante Rogue Valley Medical Center	97502	AB, OB, GYN	Nicole Hegdahl
Salem Hospital	97301	AB, OB, GYN	Stephanie johnson
Saint Alphonsus Medical Center	97914	AB, OB, GYN	Heather Johnson
Samaritan Albany General Hospital	97321	AB, OB, GYN	Jenna Hall
Legacy Silverton Medical Center	97381	AB,OB, GYN	Beth Treager
Skagit Valley Hospital	98273	AB, OB, GYN	Ginger Cordray
		AB, OB, GYN	Heather Johnson
Sky Lakes Medical Center	97601	AB, OB, GYN	Kris Harrington
St. Charles Medical Center	97701	AB, OB, GYN	Jamie Lundy
St. John Medical Center	98632	AB, OB, GYN	Paula Standley

St. Mary Medical Center	99362	AB, OB, GYN	Toni Narum
Providence St. Patrick Hospital	59802	AB, OB, GYN	Brooke Sargent
Yakima Valley Memorial Hospital	98902	AB, OB, GYN	Kari Cosper
			Patricia Senger
Baylor Scott and White	77845	AB, OB/ GYN	Amanda Ramirez
Barnes Jewish	63110	AB/OB/GYN	Melissa Rankin
Kootenai Medical Center	83814	AB, OB/GYN	Brooke Vanek
Providence St. Joseph Hospital	95501	AB, OB/GYN	Lauren Boone
Mid Columbia Medical Center	97058	AB, OB/GYN	Lynn Hoylman

G. Oregon Tech Diagnostic Medical Sonography Advisory Board Meeting

Date: 5/01/2021

Member Name	Title
Carol Mick	Public Member
Brenda Mick	Graduate Representative
Maddison Bean	Student Representative
Nagi G Naganathan	Chief Operating Officer (COO)
Robyn Cole	Program Director, On-campus and On-line
Arielle Metz	Medical Director
Bobbi Kowash	Clinical Coordinator
Sarah Brown	Clinical Instructor
Galina Bell	Clinical Instructor
Brian Delegard	Clinical Instructor
Michelyn Goetz	Clinical Instructor
Nicole Hegdahl	Clinical Instructor
Patricia Koon	Clinical Instructor
Kerri McGrath	Clinical Instructor
Michelyn Whiteford	Clinical Instructor
Sarah Kill	Clinical Instructor
Courtney Trigram	Clinical Instructor
Brooke Sargent	Clinical Instructor
Paula J. Standley	Clinical Instructor
Ashley Strohn	Clinical Instructor
Marie Vasey	Clinical Instructor
Brian Leishman	Clinical Instructor

H. Showcase Learning Experiences

Met to view the previous 2021-2022 assessment conclusions items and discussed how to integrate suggestions from industry.

May 24, 2021

Nagi Naganathan, PhD

President

Oregon Institute of Technology

3201 Campus Drive

Klamath Falls, OR 97601

Dear Dr. Naganathan:

The Commission on Accreditation of Allied Health Education Programs (CAAHEP) is pleased to inform you of its vote on May 21, 2021 to award continuing accreditation to the Diagnostic Medical Sonography - General program at Oregon Institute of Technology, Klamath Falls, OR.

The recent peer review conducted by the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS) and CAAHEP's Board of Directors recognizes the program's substantial compliance with the nationally established accreditation Standards. The next comprehensive evaluation of the program, including a site review, is scheduled to occur no later than 2026.

The JRC-DMS will regularly monitor the program's compliance with the outcomes assessment thresholds through the program's Annual Report as well as other documentation that may be requested (Standard IV.B.).

In order to comply with the need for public disclosure, CAAHEP publishes on its website the accreditation award letters and accreditation actions summaries. Award letters can be found within individual program listings in the "Find An Accredited Program" section of the CAAHEP website. Accreditation actions summaries include a list of actions taken at each meeting, including accreditation statuses awarded and dates of the next reviews/comprehensive evaluations. Summaries can be found by clicking the "Recent Accreditation Actions" link on the home page of the CAAHEP website.

The accreditation standards are established by CAAHEP, JRC-DMS, American College of Cardiology Foundation (ACCF), American College of Radiology (ACR), American Institute of Ultrasound in Medicine (AIUM), American Society of Echocardiography (ASE), American Society of Radiologic Technologists (ASRT), Society of Diagnostic Medical Sonography (SDMS), Society for Vascular Surgery (SVS), and Society for Vascular Ultrasound (SVU).

The commission commends you and your colleagues for your commitment to continuous quality improvement in education, as demonstrated by your participation in program accreditation.

Sincerely,

Glen Mayhew, DHSc, NRP

President

cc: Dan Peterson, PhD, Dean, College of Health, Arts and Sciences

Robyn Cole, MS, RDMS, RVT, Program Director, Diagnostic Medical Sonography

Christopher Kramer, RDCS, RASE, Chair, JRC-D

I. Success Stories

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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J. Program Changes

The Diagnostic Medical Sonography B.S. has one-curriculum programmatic changes from AY 2021-2022. Changed Term in which Cross Sectional was offered.

Section III – 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 IV – 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 2020-21. 1 Effective oral, visual, and written communication skills.	DMS 343 2 Directs 1 Indirect Student Exit Survey		
OIT-BSON 2020-21. 2 The ability to work effectively in teams.	DMS 370 2 Directs 1 Indirect Student Exit Survey		
OIT-BSON 2020-21. 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 2020-21. 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 2020-21. 5 Knowledge and understanding of human physiology, pathology and pathophysiology.			DMS 365 2 Directs 1 Indirect Student Exit Survey
OIT-BSON 2020-21. 6 Knowledge and understanding of ultrasound physical principles and instrumentation.		DMS 352 2 Directs 1 Indirect Student Exit Survey	
OIT-BSON 2020-21. 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 2020-21. 8 Appropriate ergonomic scanning applications.		DMS 353 2 Directs 1 Indirect Student Exit Survey	
OIT-BSON 2020-21. 9 An understanding of diverse cultural and humanistic traditions in the global society.			DMS 388 2 Directs 1 Indirect Student Exit Survey
Plan ESLO - Communication, Teamwork, Ethical Reasoning			
Assess ESLO- Inquiry & Analysis includes problem solving & Info literacy, critical analysis & logical thinking		X	
Act ESLO- Diverse Perspectives including Cultural Sensitivity & Global Awareness			

Assessment Measure # 1 & 2- PSLO 9: DMS 388 Exam Questions

OIT-BSON 2020-21. 9 An understanding of diverse cultural and humanistic traditions in the global society.

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results
Demonstrate knowledge of Diversity and Cultural Competency in Healthcare- Beliefs	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**100%**
Demonstrate knowledge of Diversity and Cultural Competency in Healthcare- Attitudes	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**100%**
Demonstrate knowledge of Diversity and Cultural Competency in	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**100%**

Healthcare-Behaviors				
Demonstrate knowledge of Diversity and Cultural Competency in Healthcare-Rituals	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**100%**
Demonstrate knowledge of Diversity and Cultural Competency in Healthcare-Residents	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**90%**
Demonstrate knowledge of Diversity and Cultural Competency in Healthcare-Organization	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**80%**
Demonstrate knowledge of Diversity and Cultural Competency in Healthcare-Family	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**90%**
Demonstrate knowledge of Diversity and Cultural Competency in Healthcare-Community	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**90%**
Demonstrate knowledge of Diversity and Cultural Competency in Senior Living Communities-Cultural Awareness	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**100%**
Demonstrate knowledge of Diversity and Cultural Competency in Senior Living	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**90%**

Communities-Leadership				
Demonstrate knowledge of Diversity and Cultural Competency in Senior Living Communities-Workplace Practices	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**90%**
Demonstrate knowledge of Diversity and Cultural Competency in Senior Living Communities-Training and Education	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**90%**
Demonstrate knowledge of Diversity and Cultural Competency in Senior Living Communities-Community Outreach	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**90%**

Assessment Measure # 3- PSLO 9: DMS 430 Survey

OIT-BSON 2020-21. 9 An understanding of diverse cultural and humanistic traditions in the global society.

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results
Demonstrate knowledge of Diversity and Cultural Competency in Healthcare-Beliefs	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**100%**
Demonstrate knowledge of Diversity and Cultural Competency in Healthcare-Attitudes	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**100%**

Demonstrate knowledge of Diversity and Cultural Competency in Healthcare-Behaviors	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**100%**
Demonstrate knowledge of Diversity and Cultural Competency in Healthcare-Rituals	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**100%**
Demonstrate knowledge of Diversity and Cultural Competency in Healthcare-Residents	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**100%**
Demonstrate knowledge of Diversity and Cultural Competency in Healthcare-Organization	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**100%**
Demonstrate knowledge of Diversity and Cultural Competency in Healthcare-Family	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**90%**
Demonstrate knowledge of Diversity and Cultural Competency in Healthcare-Community	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**100%**
Demonstrate knowledge of Diversity and Cultural Competency in Senior Living Communities-Cultural Awareness	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**100%**

Demonstrate knowledge of Diversity and Cultural Competency in Senior Living Communities-Leadership	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**90%**
Demonstrate knowledge of Diversity and Cultural Competency in Senior Living Communities-Workplace Practices	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**100%**
Demonstrate knowledge of Diversity and Cultural Competency in Senior Living Communities-Training and Education	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**100%**
Demonstrate knowledge of Diversity and Cultural Competency in Senior Living Communities-Community Outreach	**Student Survey**	**1-4 scale, % at 3 or 4**	**80% at 3 or 4**	**100%**

Section VII – Methods for Assessment

Activity: Throughout this assessment cycle the DMS faculty used minimal assessment rubrics. All the objectives of the program provides alignment with programmatic outcomes and mission.

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

Sample: All students were used to complete each activity, which is 100% of the student cohort class. No special or unusual characteristics of the student population that should are noted.

Reliability: All DMS and MIT faculty score the activities separately if multiple scoring faculty were needed on certain activities. The averages were used to as a final score using the compiled data.

Multiple Sites: Measures are not used at all multiple sites/modes where program is offered, because the Klamath Falls campus is the only campus offering such program.

Performance Target: The results of our national registry have been 100% in the past 8 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 8 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 vascular 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 vascular faculty, advisory board, and annual clinical instructors meeting minutes. Interpretations of results seem reasonable and at time no changes are needed programmatically.

OIT-BSON 2021-22. 4 Knowledge and understanding of human gross and sectional anatomy relative to normal and abnormal sonographic imaging.	
Course/Event	DMS 354
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
Criterion	N/A

OIT-BSON 2021-2022 5 Knowledge and understanding of human physiology, pathology and pathophysiology.	
Course/Event	DMS 365
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 2021-22. 8 Appropriate ergonomic scanning applications.	
Course/Event	DMS 353
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
OIT-BSON 2021-22. 9 An understanding of diverse cultural and humanistic traditions in the global society.	
Course/Event	DMS 388
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 2021-22. 4 Knowledge and understanding of human gross and sectional anatomy relative to normal and abnormal sonographic imaging.	
Criterion	Met
Summary	Board pass 100%
Improvement Narrative	N/A

OIT-BSON 2021-2022 5 Knowledge and understanding of human physiology, pathology and pathophysiology.	
Criterion	Met
Summary	Board pass 100%
Improvement Narrative	N/A

OIT-BSON 2021-22. 8 Appropriate ergonomic scanning applications.	
Criterion	Met
Summary	Board pass 100%
Improvement Narrative	N/A

OIT-BSON 2021-22. 9 An understanding of diverse cultural and humanistic traditions in the global society.	
Criterion	Met
Summary	Board pass 100%
Improvement Narrative	N/A

Assessment Measure # 1-Multiple Choice Examination
OIT-BSON 2021-22. 4 Knowledge and understanding of human gross and sectional anatomy relative to normal and abnormal sonographic imaging.

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results
Sonographically identifies specific gross human anatomy and surrounding structures in sagittal section	Written exam in DMS 354	1 point each for correct problem	80 % class average	100%
Sonographically identifies specific gross human anatomy and surrounding structures in transverse &/or coronal section(s)	Written exam in DMS 354	1 point each for correct problem	80 % class average	100%
Identifies anatomic and relative sonographic landmarks	Written exam in DMS 354	1 point each for correct problem	80 % class average	100%
Identifies sonographic modifications for pathologic differential diagnoses	Written exam in DMS 354	1 point each for correct problem	80 % class average	100%

Summary: Data collection was achieved by means of test question evaluation that pertained to the performance criteria. There DMS junior students that participated in this activity. Results for the students demonstrating proficiency is concluded in the Results Column. The DMS faculty found these results to be acceptable overall. As expected, most DMS students were able to understand human anatomy, pathology, and pathophysiology. There were no specific weaknesses that needed corrective action.

Direct Assessment # 2-Practical Examination

The faculty assessed this outcome in DMS 354 Sonographic Pathology using five practical test questions to evaluate human anatomy knowledge. Students who scored 80% correct have met our expectations for proficiency. There were junior students involved in the assessment. Results are detailed in the table below.

OIT-BSON 2021-22. 4 Knowledge and understanding of human gross and sectional anatomy relative to normal and abnormal sonographic imaging.

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results

Sonographically identifies specific gross human anatomy and surrounding structures in sagittal section	Lab Practical in DMS 354	1 - 4 scale, % at 3 or 4	**80% at 3-4**	90%
Sonographically identifies specific gross human anatomy and surrounding structures in transverse &/or coronal section(s)	Lab Practical in DMS 354	1 - 4 scale, % at 3 or 4	**80% at 3-4**	90%
Identifies anatomic and relative sonographic landmarks	Lab Practical in DMS 354	1 - 4 scale, % at 3 or 4	**80% at 3-4**	100%
Identifies sonographic modifications for pathologic differential diagnoses	Lab Practical in DMS 354	1 - 4 scale, % at 3 or 4	**80% at 3-4**	100%

Summary: The DMS faculty found these results to be acceptable overall.

Assessment Measure # 3- Self-reflection survey
The DMS Faculty indirectly assessed this outcome in DMS 354 Sonographic Pathology, Spring 2021 by asking junior students to rate themselves, using a Canvas survey tool, as to their personal assessment of the following performance criteria found in the following rubric. These results were summarized using the same performance criteria, seen below.

Assessment Measure # 3 Self-reflection Survey				
OIT-BSON 2021-22. 4 Knowledge and understanding of human gross and sectional anatomy relative to normal and abnormal sonographic imaging.				
Performance Criteria	**Assessment Methods**	**Measurement Scale**	**Minimum Acceptable Performance**	**Results**
Sonographically identifies specific gross human anatomy and surrounding structures in sagittal section	Lab Practical in DMS 353	1 - 4 scale, % at 3 or 4	**80% at 3-4**	100%

Sonographically identifies specific gross human anatomy and surrounding structures in transverse &/or coronal section(s)	Lab Practical in DMS 353	1 - 4 scale, % at 3 or 4	**80% at 3-4**	100%
Identifies anatomic and relative sonographic landmarks	Lab Practical in DMS 353	1 - 4 scale, % at 3 or 4	**80% at 3-4**	100%
Identifies sonographic modifications for pathologic differential diagnoses	Lab Practical in DMS 353	1 - 4 scale, % at 3 or 4	**80% at 3-4**	90%

Assessment Measure # 1-Multiple Choice Examination

OIT-BSON 2018-19.5 Knowledge and understanding of human physiology, pathology and pathophysiology.

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results
Demonstrates knowledge of human anatomy	Written exam in DMS 365	1 point each for correct problem	80 % class average	100%
Apply concepts and knowledge of the general terminology	Written exam in DMS 365	1 point each for correct problem	80 % class average	100%
Sonographically identifies specific gross human anatomy and surrounding structures in sagittal section	Written exam in DMS 365	1 point each for correct problem	80 % class average	100%
Identifies anatomic and relative sonographic landmark	Written exam in DMS 365	1 point each for correct problem	80 % class average	100%
Identifies sonographic modifications for	Written exam in DMS 365	1 point each for correct problem	80 % class average	100%

pathologic differential diagnoses				

Summary: Data collection was achieved by means of test question evaluation that pertained to the performance criteria. There junior DMS students that participated in this activity. Results for the students demonstrating proficiency is concluded in the Results Column. The DMS faculty found these results to be acceptable overall. As expected, most DMS students were able to understand human anatomy, pathology, and pathophysiology. There were no specific weaknesses that needed corrective action.

Direct Assessment # 2-Practical Examination

The faculty assessed this outcome in DMS 365 Sonographic Pathology using five practical test questions to evaluate human anatomy knowledge. Students who scored 80% correct have met our expectations for proficiency. Results are detailed in the table below.

OIT-BSON 2018-19.5 Knowledge and understanding of human physiology, pathology and pathophysiology.

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results
Sonographically identifies specific gross human anatomy and surrounding structures in sagittal section	Lab Practical in DMS 353	1 - 4 scale, % at 3 or 4	**80% at 3-4**	95%
Sonographically identifies specific gross human anatomy and surrounding structures in transverse &/or coronal section(s)	Lab Practical in DMS 353	1 - 4 scale, % at 3 or 4	**80% at 3-4**	90%
Identifies anatomic and relative sonographic landmarks	Lab Practical in DMS 353	1 - 4 scale, % at 3 or 4	**80% at 3-4**	100%
Identifies sonographic modifications for pathologic differential diagnoses	Lab Practical in DMS 353	1 - 4 scale, % at 3 or 4	**80% at 3-4**	90%

Summary: The DMS faculty found these results to be acceptable overall.

Assessment Measure # 3- Self-reflection survey
The DMS Faculty indirectly assessed this outcome in DMS 365 Sonographic Pathology, Spring 2018 by asking 24 junior students to rate themselves, using a Blackboard survey tool, as to their personal assessment of the following performance criteria found in the following rubric. These results were summarized using the same performance criteria, seen below.

Assessment Measure # 3 Self-reflection Survey				
OIT-BSON 2018-19.5 Knowledge and understanding of human physiology, pathology and pathophysiology.				
Performance Criteria	**Assessment Methods**	**Measurement Scale**	**Minimum Acceptable Performance**	**Results**
Sonographically identifies specific gross human anatomy and surrounding structures in sagittal section	Lab Practical in DMS 353	1 - 4 scale, % at 3 or 4	**80% at 3-4**	100%
Sonographically identifies specific gross human anatomy and surrounding structures in transverse &/or coronal section(s)	Lab Practical in DMS 353	1 - 4 scale, % at 3 or 4	**80% at 3-4**	100%
Identifies anatomic and relative sonographic landmarks	Lab Practical in DMS 353	1 - 4 scale, % at 3 or 4	**80% at 3-4**	100%
Identifies sonographic modifications for pathologic differential diagnoses	Lab Practical in DMS 353	1 - 4 scale, % at 3 or 4	**80% at 3-4**	90%

Summary: The full population for this assessment displayed satisfactory level of aptitude and most demonstrated high skill sets.

Student Learning Outcome #8: The student will demonstrate appropriate ergonomic scanning applications.

Direct Assessment #1-OIT-BSON 2018-19.8 Appropriate ergonomic scanning applications.
The faculty assessed this outcome in DMS 353, Junior Diagnostic Medical Sonography Lab, Spring 2018 by means of an ergonomic practical. The DMS juniors were given 3 criteria to focus on; correct posture, holding the transducer properly, and proper body mechanics. This assignment in conjunction with a graded practical was use to gather results. Students earned a grade for this assignment. The faculty rated student proficiency with ergonomic provisions using a graded rubric. The students were rated on a scale

from 1-10; ten being the highest score possible. 24 junior students participated in this assessment. The faculty rated the proficiency of the students using the performance criteria described in the table below.

Assessment Measure #1

OIT-BSON 2018-19.8 Appropriate ergonomic scanning applications.

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results
Student obtained correct posture	Practical examination scored with rubric	1 scale 1-10	80% at 8 or better	90%
Student held transducer correctly	Practical examination scored with rubric	1 scale 1-10	80% at 8 or better	100%
Student utilized proper body mechanics	Practical examination scored with rubric	1 scale 1-10	80% at 8 or better	90%
Student took extra time to position patient	Practical examination scored with rubric	1 scale 1-10	80% at 8 or better	90%

Assessment Measure #2-OIT-BSON 2021-22.8 Appropriate ergonomic scanning applications.

To accompany the assessment above, the faculty indirectly assessed this outcome in DMS 353 Junior Laboratory, sinter 2018 by means of a practical examination, by scoring juniors students to rate their level of competency. Junior students completed the assessment. These results are summarized, shown below.

Assessment Measure #2

OIT-BSON 2018-19.8 Appropriate ergonomic scanning applications.

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results
Student obtained correct posture	Practical examination scored with rubric	1 scale 1-10	80% at 8 or better	100%
Student held transducer correctly	Practical examination scored with rubric	1 scale 1-10	80% at 8 or better	100%
Student utilized proper body mechanics	Practical examination scored with rubric	1 scale 1-10	80% at 8 or better	90%

Student took extra time to position patient	Practical examination scored with rubric	1 scale 1-10	80% at 8 or better	100%

Summary: Effective and proper ergonomic skills are essential to a working sonographer. These students were able to demonstrate effective techniques during a live practical assessment. The goal was that 80% of these students earn at least an 8 out of 10 points possible for each performance criteria. The outcome demonstrated that the students had proper body mechanics and demonstrated overall excellent ergonomic skills.

Indirect Assessment #3- Appropriate ergonomic scanning applications.

To accompany the assessment above, the faculty indirectly assessed this outcome in DMS 430 spring 2018 exit survey, by asking the 24 senior students to rate their level of competency. There were 24 students who completed the assessment. These results are summarized, shown in table below.

Assessment Measure #3				
OIT-BSON 2018-19.8 Appropriate ergonomic scanning applications.				
Performance Criteria	**Assessment Methods**	**Measurement Scale**	**Minimum Acceptable Performance**	**Results**
Student obtained correct posture	Practical examination scored with rubric	1 scale 1-10	80% at 8 or better	100%
Student held transducer correctly	Practical examination scored with rubric	1 scale 1-10	80% at 8 or better	100%
Student utilized proper body mechanics	Practical examination scored with rubric	1 scale 1-10	80% at 8 or better	100%
Student took extra time to position patient	Practical examination scored with rubric	1 scale 1-10	80% at 8 or better	100%

Summary: The primary assessment method was composite average of a Clinical Site Program Evaluation. A survey was administered at the conclusion of the DMS class of 2022. It was the desire that students scored at least with an 80% or better. The survey summary results revealed adequate results with students scoring above the benchmark of 80%. No follow up recommendations are suggested at this time. The DMS juniors exceeded all performance criteria for understanding ergonomic provisions in all three provision areas. The entire population for this assessment displayed acceptable level of proficiency and most exhibited high proficiency.

Summary: The full population for this assessment displayed satisfactory level of aptitude and most demonstrated high skill sets.
Student Learning Outcome #8: The student will demonstrate appropriate ergonomic scanning applications.
Direct Assessment #1-OIT-BSON 2021-22.8 Appropriate ergonomic scanning applications.
The faculty assessed this outcome in DMS 353, Junior Diagnostic Medical Sonography Lab, Spring 2022 by means of an ergonomic practical. The DMS juniors were given 3 criteria to focus on; correct posture, holding the transducer properly, and proper body mechanics. This assignment in conjunction with a graded practical was use to gather results. Students earned a grade for this assignment. The faculty rated

student proficiency with ergonomic provisions using a graded rubric. The students were rated on a scale from 1-10; ten being the highest score possible. Junior students participated in this assessment. The faculty rated the proficiency of the students using the performance criteria described in the table below.

Section VII- Data-driven Action plans; Changes Resulting from Assessment
Action Driver: What assessment data prompted or supports action?

Action Specifics: The results of our national registry have been 100% in the past 11 years, thus no performance targets have been modified. Annual JRCDMS accreditation and 7 year reaccreditation validates the historical success of the DMS program at Oregon Tech. Throughout this assessment cycle the DMS faculty used all the objectives identified and provided program alignment with programmatic outcomes and mission.

Accountability: 100% of the student cohort class was used to gather data. The data was gathered from multiple courses and means. Results are presented, and they directly relate to objectives. The desired results for objectives, are clearly presented, and were derived statistical analyses, as appropriate. 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.

Planning and Budgeting: 5 year reports are provided to administration.

Improvements in Assessment Process: Results are presented, and they directly relate to objectives. The desired results for objectives, are clearly presented, and were derived statistical analyses, as appropriate. 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. Strong evidence, from direct measures, supporting substantive and/or pedagogical modifications, Reassessed, and found that student learning remained exceptional. Tt is plausible to conclude that based on our outcomes additional data is not needed at this time.

Reassessment: 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.

Section XIII. Closing the Loop: Evidence of Improvement in Student Learning

If this is an outcome being assessed following improvement activity, did you have past results from this outcome? If this is a specifically scheduled "closing the loop" assessment, how do this year's results compare with the results that prompted improvements?
None were made prior.

Did you have past action plans? Can you say that data supports that those plans resulted in improvements?
Look backwards: Discuss the last time that outcome was assessed.

Discussion took place May 2021 during annual advisory meeting.

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 17 years in overload.

• Were changes recommended?
None at this time.

• Were those changes implemented?
The 2021-2022 assessment revealed no charges were necessary. The program will continue its mission to provide skilled teaching methods.

• If so, was improvement seen?
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.