

Section 1- Program 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 prepare 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. According to IR research, the average salary for echocardiography students ranges from 67,000-\$71,000 annually.

Core Theme 3: Statewide Educational Opportunities

Oregon Tech offers statewide educational opportunities for the emerging needs of Oregon's citizens. To accomplish this, Oregon Tech provides innovative and rigorous applied degree programs to students across the state of Oregon, including high-school programs, online degree programs, and partnership agreements with community colleges and universities.

Core Theme 4: Public Service

Oregon Tech will share information and technical expertise to state, national, and international constituents.

Program Alignment to Oregon Tech Mission and Core Themes

The OIT echocardiography degree completion program enables registered professionals in cardiac ultrasound to further their knowledge and skills necessary for career advancement, to become effective communicators, problem solvers, critical thinkers, responsible managers, and leaders, and to value lifelong learning.

Program Mission

The Echocardiography Degree Completion bachelor's degree completion program enables registered professionals in cardiac ultrasound to further their knowledge and skills necessary for career advancement, to become effective communicators, problem solvers, critical thinkers, responsible managers, and leaders, and to value lifelong learning.

Section 2: Program Description and History

The Echocardiography Degree Completion program was implemented in Fall 2003 as an online program. The program was originally developed at the request of students. Students who are accepted into the Echocardiography Degree Completion program are already registered Cardiac Sonographers working in the field who have passed their national registry exam in Cardiac Ultrasound. The program is in its 20th year. This program has seen steady growth since it started with more than 100 students currently enrolled, approx. 80 active students a quarter. Average salaries are \$60,000 a year and 100% are employed.

Student Quotes from the Course Evals

Dr. Isaacson is very understanding and explains everything in detail. I enjoy her classes and learning new things. Thank you for everything, you are a role model for the rest of the instructors.

Thank you for a great and informative course!

She's a wonderful, caring Professor.

Dr Isaacson has been great! I enjoyed watching and learning from all the video presentations. I have greatly improved my writing skills.

I enjoy Dr. Isaacson's classes! My favorite portion are the discussions, which always draw meaningful conversations amongst my peers. I hope Dr. Isaacson continues to be on staff as the Echo director, as she is a great asset to the university.

I always enjoying taking courses being taught by Dr. Isaacson. She is amazing!

Dr. Isaacson has great knowledge on the subject matter and is very willing to work with adult students.

Excellent professor. She provides every tool needed to succeed in this course.

I feel like I learned a lot from this course and that I am now prepared to submit a paper to journal which I could not have done before taking the class.

ALH 506

I have gained much understanding of leadership skills. The textbook was easy to follow and just the right amount to read. Awesome class and a great teacher.

I'm really enjoying the course, thank you!

I am learning so much in this course. Dr. Isaacson is very invested in helping her students learn the concepts. Excellent teacher. I liked her courses that she gives a written lecture and a vocal lecture as well.

This is nothing shy of what I would expect from Dr Isaacson, she is a great leader and has a way of bringing out the best in her students. You get out of dr I's class exactly what you put in.

ECHO 376

Dr. Isaacson is one of the best teachers I have ever had. She is very compassionate and empathetic, but also challenges us to learn more and be our best selves at the same time. I think online learning would be much harder if Dr. Isaacson was not my main instructor. I really appreciate her teaching style.

Dr. I is really knowledgeable regarding Vascular ultrasound. She is very communicative regarding questions and responds in a very timely fashion. There was a problem with my grade reflecting a zero for a completed assignment and I received a very prompt response letting me know that she was in a meeting and would look into it ASAP and the grade was taken care of within the hour.

Dr. Isaacson is a wonderful and excellent instructor and mentor. I do consider her a mentor and hope for it to be true that just a desire. I have gained quite a bit of self-confidence with her help coming back to school, after many years being out of school. I consider myself fortunate to have had her as my first instructor and academic advisor.

I greatly enjoyed my time here at Oregon Tech, you have been a great teacher and mentor to my career. Thank you!

VAS 366

Great Instructor

ALH 555

I really enjoyed taking anything class from Dr. Isaacson, she is an exceptional teacher even though this is an online class and very attentive, replies quickly to e-mail, etc. This class like others I have taken from her have helped me recognize leadership skills I have that I will continue to apply in my workplace.

I really enjoyed this class. I feel like it set a great foundation for future classes in leadership and for my future career. I really liked the self-assessments and sharing them with the class. Our class had an open, honest and supportive feel.

The workload for this class was good and all the extra web pages, podcast, etc. were excellent tools.

Dr. Isaacson is one of the most caring, kind, and understanding professors that I have ever had. She always believes in her students and is very encouraging. Her support has made the world of a difference in me and my education. I am very thankful to have her as a professor.

I loved this course! I found I could immediately apply what I was learning to my job, and it actually changed how I felt about my current job situation and had made me reevaluate my future goals. Dr Isaacson is clearly invested in helping students succeed, and she provided excellent resources beyond the text (which was probably the best textbook I've ever read). I got so much out of this class, which is exactly what I have come to expect from oit.

Very helpful, willing to accommodate students. Accessible.

Echo 334

An extremely fair instructor. Great course material and supplemental information. Very caring about her students

Dr. Isaacson has been very helpful with navigating the Canvas site and very patient with questions about APA formatting and Turnitin. I'm grateful for all the help she's given me this past semester to acclimate myself to college life again. Looking forward to moving ahead and taking more courses.

Dr. I is an exceptional professor and is a major asset to this program. I could not be more pleased to attend OIT because of her. I recommend this program base on her support and knowledge she has provided me as a student.

Thank you.

She was an amazing teacher!

Student Quotes from the Course Evals - *continued*

I thoroughly enjoyed the course and the constant positive support offered by Dr. Isaacson. My only suggestion would be an update of course page in Canvas. For example, I was incredibly confused as to post my first assignment in Canvas as specific step-by-step instructions were given but did not match the Canvas interface. There was probably a software update at some point and the changes just weren't made on the class page. As a newbie to Canvas, I was lost for a few days! Also, refreshing the articles and links shared on the weekly assignments to include a few more current updates would probably be helpful to some of the students. Thanks for everything! I have really enjoyed this semester's course Echocardiography IV. Dr. Janette Isaacson is an exceptional teacher. She made it fun and easy to learn. The intense reading and researching of medical literature will continue far beyond this course. It will serve me well in my career. Dr Isaacson teaches more than just echocardiography and helps develop people in a variety of ways.

Echo 385

I enjoyed this class and your teaching style. It taught me a lot.

I really enjoyed my first course with Professor Isaacson, and I cannot wait for many more with her!

Dr. Isaacson is exceptional. She is patient, kind, and really wants her students to succeed. It is obvious that she cares for her students and has great knowledge of the subject matter.

VAS 337

Great Instructor

Extremely knowledgeable and supportive, wish u could take her classes in person

Always answers any questions or concerns and lends an encouraging hand when needed.

This course Survey of Echo, although great content, my opinion is that there is too much of a workload for 10 weeks. I think this class would be better split up for 2 semesters the way it taught now. Otherwise, less workload during this week. I'm personally at the point in the class where I'm just turning assignments in, so I won't fail but I'm not learning or retaining anything because it's too fast. My opinion. Diasakos is a great, amazing, and patient teacher, who wants the best for her students and thankfully works with us if we are behind. But this class is a bit excessive.

Yet another excellent course taught by Dr. Isaacson, who is amazing :)

VAS 385

I love this professor. She's very helpful and encouraging.

Dr. Isaacson was a great instructor. Her course is thought provoking and interesting. Thank you, Dr. Isaacson!

Great Instructor that's willing to help students achieve in their studies.

ALH 525

I did learn a lot from being in this class. I learned how to contribute effectively to a team and how to be more empathetic and sensitive to the different cultures. I learned how I'm always to be mindful of my attitude towards cultural traditions and how my attitude might affect how I deliver care to patients and their family members. This is a great course, and greatly needed. I'm glad it was a part of my curriculum, otherwise I wouldn't have been aware of so many insensitive things that we as healthcare workers do on a daily basis unaware of the damage we're causing.

Janette Isaacson is an instructor that wants students to learn concepts of the course.

Echo 227

I really liked the way this class was broken down week by week to help understand the different heart arrhythmias. Very fast grading of assignments was appreciated.

Dr. Isaacson did a wonderful job teaching this course! She is exactly what I hope for in an instructor; great communication skills, fairness, understanding, and making expectations clear. This was a great experience, and I was successful in this course, especially for a topic I had very little knowledge of.

She is a great teacher, very encouraging.

Echo 420A/VAS420A

Dr. Isaacson is a very good instructor and works well with students to achieve their goals.

I have enjoyed Dr. Isaacson's course structures and her encouraging feedback on assignments!

As always, exceptional correlation of course material to assignments and learning objectives. Excellent instructor

I have had the pleasure of being in several of Professor Isaacson classes. It is refreshing to see how much an instructor/professor/teacher strives to see all of her students succeed. She is truly a blessing to the educational field and valued from all of her students.

My favorite professor in the whole world

I have greatly enjoyed my class with Dr. Isaacson. She provides great information and gives me the tools to be successful. Thank you.

Awesome instructor!!!

Dr. Isaacson Stays in great communication with her students. She is compassionate and encouraging therefore you want to succeed in her courses. She is wonderful.

Dr. Isaacson has made this journey effortless. She is always there to help you succeed and I appreciate that. Whatever you need she is there to help.

I have learned so much in this course that I am more determined to start work on publishing cases.

What a great semester, very informative and pushed us to be more professional in our writing.

Dr. Isaacson is an excellent professor who cares for her student's well-being and education.

DR. Janette Isaacson encouragement throughout the class has helped me stay focused and she had helped me accomplish my work when I was going through a lot at home and work. She is an excellent advisor and teacher.

I have greatly appreciated Dr. Isaacson and her classes, the knowledge gained has helped me in my professional life as I have gained insight and skills through her classes.

VAS 365

Dr. Isaacson is an awesome instructor with compassion and understanding beyond what's necessary.

Showcase Learning Opportunities

As stated above the students in the degree completion programs are working licensed professionals already and are working toward completing their bachelors. There are many professional meetings but the one that most students attend is the Society for Echocardiography meeting. Covid is still impacting health professional with many rounds of variants and that is impacting students and their families, but overall things are improving in this pandemic. Both the national SVU meeting, and the regional Pacific Northwest meeting are resuming in person meetings. These are large meetings that brings physicians and technologists together in large numbers. In the lab management course, students are asked to interview experts in human resources, lab management, workplace discrimination policy and practice. In the externship course students publish professional case studies in scientific journals. In the externship courses students are writing at an advanced level and improving their communication skills. Many of their case studies are accepted to present at the annual meeting, which is a great opportunity to advance their careers. In addition, many students go on to publish their work in scientific scholarly journals while still attending school. There is a big push in the degree completion program for students to enhance their scholarly literature review skills and to publish.

Program Enrollment

There are approx. 80 active students in the degree completion program every quarter of 2021-2022. See Appendix.

Program Graduates

The data below is not separated out for the degree completion students. We graduate students every quarter and not just at the end of the year. See Appendix.

Employment Rates and Salaries

The data below is not separated out of the degree completion students. However, all the students in the program are employed and salaries range from \$60,000 to \$71,000, with the average at \$60,000. The students in this program are already licensed and working in the field prior to embarking in the degree completion programs.

Pass Rates on Board and Licensure Exam

All the degree completion students have passed their licensure exams prior to starting in the degree completion program.

Section 3 – Program Learning Outcomes

Program Learning Outcomes

- The student will demonstrate the ability to communicate effectively in oral, written, and visual forms.
- The student will demonstrate the ability to work effectively in teams.
- The student will demonstrate an ability to provide basic patient care and comfort.
- The student will employ professional judgment and discretion including ethics.
- The student will demonstrate knowledge and understanding of human gross anatomy, sectional anatomy, and normal and abnormal cardiovascular anatomy.
- The student will demonstrate knowledge and understanding of cardiovascular physiology, pathology, and pathophysiology.
- The student will demonstrate knowledge and understanding of cardiovascular physical principles and instrumentation.
- The student will demonstrate knowledge and understanding of clinical cardiovascular diagnostic procedures and testing.
- The student will demonstrate an understanding of diverse cultural and humanistic traditions in the global society.
- The student will be able to perform scholarly research and to contribute that knowledge to the field of echocardiography.

| Echocardiography Degree Completion Learning Outcomes Assessment Schedule | 2021-2022 | 2022-2023 | 2023-2024 |
|--|----------------------------------|------------------------------|----------------------------------|
| 1. The student will demonstrate the ability to communicate effectively in oral, written and visual forms. | 420A (Winter) 420 B (Spring) | | |
| 2. The student will demonstrate the ability to work effectively in teams. | 334 (Fall) | | |
| 3. The student will demonstrate an ability to provide basic patient care and comfort. | | | 420 A (Winter) 420 B (Spring) |
| 4. The student will employ professional judgment, and discretion including ethics. | 420 A (Winter) 420 B (Spring) | | |
| 5. The student will demonstrate knowledge and understanding of human gross anatomy sectional anatomy and normal and abnormal cardiovascular anatomy. | | Echo 325 (Fall) | |
| 6. The student will demonstrate knowledge and understanding of cardiovascular physiology, pathology, and pathophysiology. | | | Echo 325 (Fall) |
| 7. The student will demonstrate knowledge and understanding of cardiovascular physical principles and instrumentation. | | | Echo 385 (spring) |
| 8. The student will demonstrate knowledge and understanding of clinical echocardiography diagnostic procedures and testing. | | 420A (Winter) 420 B (Spring) | |
| 9. The student will demonstrate an understanding of diverse cultural and humanistic traditions in the global society. | | 385 (spring) | |
| 10. The student will be able to perform scholarly research and to contribute that knowledge to the field of echocardiography. | | 420A (Winter) 420 B (Spring) | |

Table 1: Echocardiography. Program Learning Outcomes

Program Faculty Review

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

Degree Completion Echocardiography Faculty met in the fall of 2021-2022 to review the program. The Degree Completion Echo Faculty met with the advisory board to be able to get feedback in all learning outcomes and discuss the needs of industry. The Advisory Board met in Sept 2020 and again in May 2021, were the results of assessment and student learning were discussed. Most of the discussion centered on how to support the students during the pandemic. The Advisory Board consists of 5 OIT degree completion program graduates who serve the echo and vascular technology degree completion program. In addition, there are 2 industry leaders that serve on the Board.

Board Members had a lot of thoughts on marketing the program and suggest attention the national meetings this year as an exhibitor. Because of the Covid/Variants it did not happen. The members would like more people to know about the program. Some members were interested in talking about an advanced practice degree but so far this has been thought to be too expensive to launch. Further suggestions will take place at the next meeting in the spring. All students in the echo degree completion program are healthcare workers and this pandemic has greatly impacted them.

Section 4

Curriculum Map Included in the Appendix

V. Summary of Assessment Activities

The Echocardiography Degree Completion Program faculty conducted formal assessment of three student learning outcomes during 2021-2022. Our Institution changed in 2021-2022 to a three-year cycle of assessment, so below you will see Planning, Assess and Action. In assessment, you will also see data taken from the institutional dashboards on disaggregated data for equity gaps, retention, persistence, DFWI & graduation rates. These are measured across, gender, first generation, all races, and low-income students.

Assessment Three Year Cycle

Part A: Planning for next year 2022-2023 Academic Year:

NWCCU announced in 2020, that we can use these methods measures for student learning.

| Direct Measures | Indirect Measures |
|--------------------------------|-------------------------|
| Faculty Grades – Rubric | Faculty Grades- DFW |
| Standardized tests, exams | Surveys and Reflections |
| Pre and Post Test Designs | Course Evaluations |
| Competency Based Demonstration | Graduation Rates |
| Portfolios | Retention Rates |

CLOSING THE LOOP ACTIONS: Inquiry and Analysis 2021-2022

The faculty chose to focus inquiry and analysis efforts on scholarly research, literacy skills and helping students in 420A and B cases on clinical cases and publication skills. Students were coached in research, writing literature reviews, and publishing clinical case studies. This advances the students career opportunities along with their inquiry and analysis skills. Students are encouraged to take statistics and epidemiology courses at the undergraduate and graduate levels as well. Students are asked to present their clinical case studies to their peers and discuss them.

The Echo faculty are planning for next year's (2023-2024) ISLOs assessment in the areas:

Planning: Inquiry and Analysis

Assessing: Cultural Sensitivity and, Global Awareness

Action: Communication, Teamwork, Ethical Reasoning

The Echo faculty are planning for program assessment (2023-2024) assessment in the following PLOs:

- PLO# 5: The student will demonstrate knowledge and understanding of human gross anatomy sectional anatomy and normal and abnormal cardiovascular anatomy.
- PLO#8: The student will demonstrate knowledge and understanding of clinical echocardiography diagnostic procedures and testing.
- PLO#9: The student will demonstrate an understanding of diverse cultural and humanistic traditions in the global society.
- PLO#10: The student will be able to perform scholarly research and to contribute that knowledge to the field of echocardiography.

VI. Evidence of Student Learning

The Echocardiography Degree Completion faculty conducted an analysis of where this outcome is reflected in the degree completion curriculum. The mapping of this outcome in the Echocardiography Degree Completion courses can be found in Appendix A1.

Student Learning Outcome #1. The student will demonstrate the ability to communicate effectively in oral, written, and visual forms.

This also applies to the ESLO/ISLO this year on Communication.

Direct Assessment

Faculty assessed 41 (Winter) 34 (Spring) 75 students' direct assignments in 420A, 420B in the 2021-2022 Academic year. The rubric is designed for the student learning outcome for written communication was given to the students and used to grade the assignment. The faculty rated the proficiency of students using the rubric in the table below.

| Performance Criteria | Assessment Methods | Measurement Scale | Minimum Acceptable Performance | Results |
|----------------------|--------------------|---|--------------------------------|---------|
| Purpose and Ideas | Grading Rubric | 1-4 scale per rubric proficiency Criteria | 80% with 3.0 or higher | 80% |
| Organization | Grading Rubric | 1-4 scale per rubric proficiency Criteria | 80% with 3.0 or higher | 93% |
| Support | Grading Rubric | 1-4 scale per rubric proficiency Criteria | 80% with 3.0 or higher | 89% |
| Style | Grading Rubric | 1-4 scale per rubric proficiency criteria | 80% with 3.0 or higher | 80% |
| Conventions | Grading Rubric | 1-4 scale per rubric proficiency Criteria | 80% with 3.0 or higher | 87% |
| Documentation | Grading Rubric | -4 scale per rubric proficiency criteria | 80% with 3.0 or higher | 81% |

Table 1: Written Communication 2021-2022 students Echo 420A & B **ESLO/ISLO COMMUNICATION**

Strengths: Students were able to demonstrate >80% proficiency in these 400 level senior courses on written communication.

Weaknesses: None

Improvements: Find ways for students to practice even more to grow proficiency.

Indirect Assessment PLO #1 ESLO/ISLO COMMUNICATION

Students were sent a survey and asked to rate themselves on a scale of 1-4, their confidence in their written communication skills, specifically purpose and idea, organization, support, style, convention, and documentation. 93% (70/75) indirect surveys in 420A, 420B in the 2021-2022 Academic year were returned.

| Performance Criteria | Assessment Methods | Measurement Scale | Minimum Acceptable Performance | Results |
|----------------------|--------------------|---|--------------------------------|---------|
| Purpose and Ideas | Grading Rubric | 1-4 scale per rubric proficiency Criteria | 80% with 3.0 or higher | 100% |
| Organization | Grading Rubric | 1-4 scale per rubric proficiency Criteria | 80% with 3.0 or higher | 100% |
| Support | Grading Rubric | 1-4 scale per rubric proficiency Criteria | 80% with 3.0 or higher | 87% |
| Style | Grading Rubric | 1-4 scale per rubric proficiency criteria | 80% with 3.0 or higher | 81% |
| Conventions | Grading Rubric | 1-4 scale per rubric proficiency Criteria | 80% with 3.0 or higher | 100% |
| Documentation | Grading Rubric | -4 scale per rubric proficiency criteria | 80% with 3.0 or higher | 100% |

Table 2: Students Surveyed on their confidence in their written communication skills 2021-2022 students 420A & B
ESLO/ISLO COMMUNICATION

Strengths: Only 93% of the surveys were returned but nearly 100% of them rated student confidence at or near 100% in each category of written communication. The students surveyed rated their confidence in each category of written communication well over 80% in each category. The students are confident that they can write well.

Weaknesses: None

Improvements: Find ways for students to practice throughout the years (throughout the curriculum) even more to grow proficiency.

B. Program Learning Outcome#2: The student will demonstrate the ability to work effectively in teams.

The purpose of this assessment was to determine if students feel they have good team working skills and if their employers think they are good team members as well.

This applies for the ESLO/ISLO this year on teamwork.

Direct Measures Program Learning Outcome#2 ESLO/ISLO this year on teamwork

Twenty-One Students in Echo IV Fall 2021 were placed in teams and had to pick a specialized topic in echo and present a PowerPoint at the end of the quarter as a team. They had to research as a team and develop the presentation as a team. They are assigned their teams at the beginning of the term and the project is due at the end of the term. They are allowed to work in a virtual classroom to share files and to have discussions. They are randomly assigned into teams.

| Performance Criteria | Assessment Methods | Measurement Scale | Minimum Acceptable Performance | Results |
|--|--------------------|---|--------------------------------|---------|
| 1. Identify and achieve goal/purpose | Grading Rubric | 1-4 scale per rubric proficiency Criteria | 80% with 3.0 or higher | 81% |
| 2. Assume Roles and Responsibilities | Grading Rubric | 1-4 scale per rubric proficiency Criteria | 80% with 3.0 or higher | 90% |
| 3. Interact Appropriately | Grading Rubric | 1-4 scale per rubric proficiency Criteria | 80% with 3.0 or higher | 86% |
| 4. Reconcile Differences | Grading Rubric | 1-4 scale per rubric proficiency Criteria | 80% with 3.0 or higher | 95% |
| 5. Share Appropriately | Grading Rubric | 1-4 scale per rubric proficiency Criteria | 80% with 3.0 or higher | 86% |
| 6. Develop Strategies for Effective Action | Grading Rubric | 1-4 scale per rubric proficiency Criteria | 80% with 3.0 or higher | 100% |

Table 3: Echo IV Fall 2021 Team Assignment [ESLO/ISLO TEAMWORK](#)

Strengths: Students performed overall well, above 80% in all criteria.

Weaknesses: Students have the hardest time picking the topic to do their projects on.

As a result, faculty will provide more instruction on topic choice including a list of possibilities.

Indirect Measures Program Learning Outcome #2 [ESLO/ISLO this year on teamwork](#)

For student learning outcome #2, two indirect measurements were conducted on 75 students / employers in 420A / 420B courses during Winter and Spring Terms 2021-2022. Surveys were completed by the students and by their employers to assess the quality of teamwork they are providing on the job. It should be noted that the students are all board registered and are already professionally employed full time echo techs. 85% of the student surveys were returned and 35% of the employer surveys were returned.

| Performance Criteria | Assessment Method | Measurement Scale | Minimum Acceptable Performance | Results |
|---------------------------------|-------------------|-------------------|--------------------------------|---------|
| Works Well with Team Members | Student Survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Communicates Well / Non Hostile | Student Survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Strategy Formulation | Student Survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Works well with patients | Student Survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Trains and Helps Others | Student Survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Passion for their work | Student Survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Timely | Student Survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Honest Integrity Good Attitude | Student Survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Innovative | Student Survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Goal Oriented | Student Survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Systems Monitoring | Student Survey | 1- 4 scale | 80% at 3 or 4 | 100% |

Table 4: SLO #2: Teamwork Student Survey: Echo 420 A and Echo 420 B [ESLO/ISLO TEAMWORK](#)

Strengths: Students Self-Ranked their team working skills and rated themselves high.

Weakness: Students do not feel they lack in team working skills.

Indirect Measure Program Learning Outcome#2 Student Survey

A survey was sent to 75 students in 420 A and 420B Winter and Spring Terms 2021-2022 and only 35% employers returned the survey. The results are shown in Table #4 below.

| Performance Criteria | Assessment Method | Measurement Scale | Minimum Acceptable Performance | Results |
|---------------------------------|-------------------|-------------------|--------------------------------|---------|
| Works Well with Team Members | Employer survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Communicates Well / Non Hostile | Employer survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Strategy Formulation | Employer survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Works well with patients | Employer survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Trains and Helps Others | Employer survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Passion for their work | Employer survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Timely | Employer survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Honest Integrity Good Attitude | Employer survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Innovative | Employer survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Goal Oriented | Employer survey | 1- 4 scale | 80% at 3 or 4 | 100% |
| Systems Monitoring | Employer survey | 1- 4 scale | 80% at 3 or 4 | 100% |

Table 5: PLO #2: Team Work on the job: 420 A and 420 B Employers self-ranked in all categories. [ESLO/ISLO TEAMWORK](#)

Strengths: Employers feel the students have good team working skills on the job and they have been working clinically prior to joining this program.

Weaknesses: This survey was done with the job setting in mind and students overall do well. They are already working professionally.

C. Program Learning Outcome #4: The student will employ professional judgement and discretion including ethics.

[This also applies to the ESLO/ISLO on Ethical Reasoning.](#)

Direct Measure #1 Program Learning Outcome #4 [ESLO/ISLO on Ethical Reasoning.](#)

The students in 420A and 420B were new to the program. During winter and spring quarters 2021-2022 there were 75 students who completed case studies. The students were required to apply what they had learned in previous course work to actual case studies. The students were asked to support their arguments with material from their reading and the discussion section of the class. A grading rubric was used to assess the students' work. The following 6 areas were measured in the grading rubric. 1) the ability to perform the tasks and roles required (competency), 2) integrating all data, 3) attention to detail- attending to fine detail (which included writing skills) 4) seeing the whole- getting the bigger picture, 5) developing expertise, 6) problem solving using logic and reasoning (see Table 6 below).

| Performance Criteria | Assessment Method | Measurement Scale | Minimum Acceptable Performance | Results |
|---|-------------------|-------------------|--------------------------------|---------|
| the ability to perform the tasks and roles | Grading Rubric | 1- 4 scale | 80% at 3 or 4 | 93% |
| integrating all data | Grading Rubric | 1- 4 scale | 80% at 3 or 4 | 100% |
| attention to detail- attending to fine detail | Grading Rubric | 1- 4 scale | 80% at 3 or 4 | 87% |
| seeing the whole- getting the bigger picture, | Grading Rubric | 1- 4 scale | 80% at 3 or 4 | 100% |
| developing expertise, | Grading Rubric | 1- 4 scale | 80% at 3 or 4 | 87% |
| problem solving using logic and reasoning | Grading Rubric | 1- 4 scale | 80% at 3 or 4 | 93% |

Table 6: PLO #4: Professional Judgment: Echo 420A and Echo420B Winter and Spring Terms. [ESLO/ISLO ETHICAL REASONING](#)

Strengths: The students either met benchmark or surpassed it in terms of their professional judgement, discretion, and ethical standards on clinical cases.

Weakness: None

As a result of the data, program faculty feel students do a good job on deciding the facts of case and employ professional judgement, discretion, and ethical standards. These are students who have already been working in the field for some time before they start this program. They are already experienced on clinical cases.

Direct Measure #2 Program Learning Outcome #4 [ESLO/ISLO on Ethical Reasoning](#).

Twenty-Five students in Echo 385 Echo Lab Management were new to the program. During winter and spring quarters 2021-2022 there were new students who completed the final projects. A grading rubric was used on a complex final project. The following 6 areas were measured in the student survey. 1) the ability to perform the tasks and roles required (competency), 2) integrating all data, 3) attention to detail- attending to fine detail (which included writing skills) 4) seeing the whole- getting the bigger picture, 5) developing expertise, 6) problem solving using logic and reasoning (see Table 7 below).

| Performance Criteria | Assessment Method | Measurement Scale | Minimum Acceptable Performance | Results |
|---|-------------------|-------------------|--------------------------------|---------|
| the ability to perform the tasks and roles | Grading Rubric | 1- 4 scale | 80% at 3 or 4 | 100% |
| integrating all data | Grading Rubric | 1- 4 scale | 80% at 3 or 4 | 100% |
| attention to detail- attending to fine detail | Grading Rubric | 1- 4 scale | 80% at 3 or 4 | 92% |
| seeing the whole- getting the bigger picture, | Grading Rubric | 1- 4 scale | 80% at 3 or 4 | 87% |
| developing expertise, | Grading Rubric | 1- 4 scale | 80% at 3 or 4 | 93% |
| problem solving using logic and reasoning | Grading Rubric | 1- 4 scale | 80% at 3 or 4 | 87% |

Table 7: PLO #4: Professional Judgment: 385 [ESLO/ISLO ETHICAL REASONING](#)

Strengths: Students completed a complex final project which involved interviewing, research and studying their textbook and either met or surpassed the benchmark to show that they have good professional judgement and ethical decision skills.

Weakness: None

As a result of the data, program faculty decided the students are good at professional development. We know from past assessments when students self-rate their professional judgement skill, that they rate it very high.

Equity Gap Report

CLOs Worksheet Report: CLOs worksheet was completed for all Courses that demonstrated the Program Learning Outcomes for 2021-2022

Findings: Students met all PLOs in courses at 80% or higher. All DFWI rates were overall low. No equity gaps were found but I have low numbers of students across races. I need to recruit more students of color. I need to recruit more male students in the healthcare programs and retain them.

Equity Gap Report

Equity Gap Dashboards and CLOs Worksheet:

Student Success Dashboard Reflection Questions Retention Dashboard

- What is the retention rate for all students in your program?

Table 8:

| Retention 53.3% | Action Plans |
|---|--|
| 2/4 African American Students, 1/1 Asian Students and 1/2 Hispanic Students | Recruit and retain more male Students |
| 41 were not low income | Recruit more students of color |
| 3/45 First Generation, and we lost 1 | Offer more financial aid options |
| Most students were white that left and left at the first term. | Survey and hang onto African American and all Races of Students Develop student satisfaction survey. |
| Minorities are very low in number so losing any of them has a large impact. | ESL Tutors Better Financial Aid Options Mentors that check in with students weekly Most students leave after the first quarter, survey them and plan interventions for that first quarter. Most drop in the first week. |

- How do the retention rates compare across gender, racial groups, first-generation students, and low socio-economic students?

Minorities are very low in number so losing any of them has a large impact. Most of the students that were not retained were white and left after the first quarter. We lost 1 first generation student, 2 African American, 1 Hispanic and 1 Asian Student.

- What opportunities do you see for improvements? What actions do you plan to take to improve the retention rates in this coming quarter and year?

- Offer more financial aid options
- Recruit more students of color
- Recruit more male students and retain them
- Survey and hang onto African American and all Races of Students
- Survey and hang onto first generation students.
- ESL Tutors
- Better Financial Aid Options
- Mentors that check in with students weekly
- Most students leave after the first quarter, survey them and plan interventions for that first quarter. Most drop in the first week.
- Make assignments clearer with better alignment
- Have more advising appointments the first quarter for transfer students
- Survey students who dropped first quarter

Graduation Dashboard

- What is the 6-year graduation rate for students in your program? 50.8%, is the institutional graduation rate in 2020

2020 year the graduation rate is 40%

- How do graduation rates compare across gender, racial groups, first-generation students, and low socio-economic students? These are all low numbers. Numbers across races are low.

- What opportunities do you see for improvements? What actions do you plan to take to improve the graduation rates in this coming quarter and year? DFWI Dashboard D= D grade, F= Fail grade, W=Withdrew, I= Incomplete

Echo 227 DFWI is 0% Echo IV

DFWI is 10.5% Echo 376 11%

Echo 385 11%

Echo 420 A 2.7%

Echo 420B 2.6%

- What are your DFWI rates across the courses in your program and are they above >12%. How do the DFWI rates in your programmatic courses compare across gender, racial groups, first- generation students and low socio-economic students?

None are above 12%, some are close at 11%. 2019 year 44 Hispanic students, 15 are first generation, 30 are female, 155 White students, 18 Asian and 15 African American. The highest DFWI are in the white students with 10 students. Out of 249 students, only 10 were low income on Pell grants.

- What are your gatekeeper courses in your program? What actions do you plan to take to improve (strategies) the DFWI rates in courses in your program this coming quarter and year? Pharmacology, WRI 122 and A&P

After looking at the disaggregated data from all three dashboards, list the top three equity gaps within your program and discuss plans (strategies) to try to close them. What input and/or suggestions for actions or initiatives do you think your college, or the university can do that might help with closing a gap?

Many students who defaulted are white. The problem is in general there are low numbers of students of color. We need to recruit and retain students of color.

Appendix A1

Curriculum Map for Echocardiography Degree Completion Program

Student Learning Outcome #1. The student will demonstrate the ability to communicate effectively in oral, written, and visual forms.

Courses that are shaded below indicate that the SLO is taught in the course, students demonstrate skills or knowledge in the SLO, and students receive feedback on their performance on the SLO. The following codes indicate the level of emphasis of the SLO in the course. I= Introduced, R= Reinforced, E=Emphasized

| | | Echocardiography Degree Completion Program | | Fall | Winter | Spring |
|------|-------|--|---|------|--------|--------|
| BUS | 316 | Total Quality in Health Care | 3 | | | |
| BUS | 317 | Health Care Management | 3 | | | |
| CHE | 210 | Clinical Pharmacology | 3 | | | |
| ECHO | 325* | Pediatric Echocardiography** | 3 | IE | | |
| ECHO | 332* | Invasive Cardiology** | 3 | | IE | |
| ECHO | 365* | Abdominal/Renal Testing | 4 | IE | IE | IE |
| ECHO | 376* | Survey of Vascular Testing** | 3 | IE | IE | IE |
| ECHO | 385* | Echocardiography Laboratory Management | 3 | | | |
| ECHO | 420A* | Echocardiography Externship | 8 | R | | R |
| ECHO | 420A* | Echocardiography Externship | 7 | R | | R |
| ECHO | 421* | Echocardiography Senior Project | 4 | | | |
| SPE | 321* | Small Group & Team Comm | 3 | | | |
| | * | Communication elective from Gen Ed list*** | 3 | | | |

Appendix A2

Curriculum Map for Echocardiography Degree Completion Program

Program Learning Outcome#2: The student will demonstrate the ability to work effectively in teams.

Courses that are shaded below indicate that the SLO is taught in the course, students demonstrate skills or knowledge in the SLO, and students receive feedback on their performance on the SLO. The following codes indicate the level of emphasis of the SLO in the course. I= Introduced, R= Reinforced, E=Emphasized

| | | Echocardiography Degree Completion Program | | Fall | Winter | Spring |
|------|-----------|--|---|------|--------|--------|
| BUS | 316 | Total Quality in Health Care | 3 | | | |
| BUS | 317 | Health Care Management | 3 | | | |
| CHE | 210 | Clinical Pharmacology | 3 | | | |
| ECHO | 325 * | Pediatric Echocardiography** | 3 | R | | |
| ECHO | 332 * | Invasive Cardiology** | 3 | | IE | |
| ECHO | 365 * | Abdominal/Renal Testing | 4 | IE | IE | IE |
| ECHO | 376 * | Survey of Vascular Testing** | 3 | IE | IE | IE |
| ECHO | 385 * | Echocardiography Laboratory Management | 3 | | | |
| ECHO | 420 A* | Echocardiography Externship | 8 | R | | R |
| ECHO | 420 A* | Echocardiography Externship | 7 | R | | R |
| ECHO | 421 * | Echocardiography Senior Project | 4 | | | |
| SPE | 321 * | Small Group & Team Comm | 3 | | | |
| | * | Communication elective from Gen Ed list*** | 3 | | | |

Appendix A3

Curriculum Map for Echocardiography Degree Completion Program

Program Learning Outcome #4: The student will employ professional judgement and discretion including ethics.

Courses that are shaded below indicate that the SLO is taught in the course, students demonstrate skills or knowledge in the SLO, and students receive feedback on their performance on the SLO. The following codes indicate the level of emphasis of the SLO in the course. I= Introduced, R= Reinforced, E=Emphasized

| ECHO Degree Completion | | | | Fall | Winter | Spring | Summer |
|------------------------|-------|---|---|------|--------|--------|--------|
| BIO | 220* | Cardio ECHO Physiology | 4 | | | | |
| BUS | 316 | Total Quality in Health Care | 3 | | | | |
| BUS | 317 | Health Care Management | 3 | | | | |
| CHE | 210* | Clinical Pharmacology | 3 | | | | |
| SPE | 321* | Small Group & Team Comm | 3 | | | | |
| VAS | 335* | Radiographic ECHO Anatomy | 3 | | | | |
| VAS | 337* | Survey of Echocardiography** | 3 | IE | | IE | |
| VAS | 365* | Abdominal ECHO Disease | 4 | IE | IE | IE | IE |
| VAS | 366* | Special Circulatory Problems | 4 | IE | | IE | |
| VAS | 375* | Survey of Abdominal Sonography** | 3 | | IE | | |
| VAS | 385* | ECHO Laboratory Management | 3 | | | | |
| VAS | 420A* | Special ECHO Technology | 8 | | | | |
| VAS | 420B* | Special ECHO Technology Externship | 7 | R | | R | |
| | * | Communication elective (from Gen Ed list) *** | 3 | | | | |