Echocardiography B.S.
Degree Completion

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.

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. There have been well over 100 graduates to date, 92 in the last year alone and the program is in its 17th year. This program has seen steady growth since it started with more than 100 students currently enrolled, approx. 78 active students a quarter. On the student exit survey, 64% of the students said they "highly proficient" and 36% of students said there were "proficient" on the job as a result of this program. 100% of the online degree completion students in echo are employed. So, there is 100% success rate and median salary is $65,000. The majority of students because they work are part time, taking 1-2 classes at a time.

Online	66	64	68	74	78
Full-Time	5	5	3	2	10
Part-Time	61	59	65	72	68

Survey Student Quotes from the Exit Surveys

"I had observations on open heart surgeries which opened up my perspective in my field even more."
"The courses have allowed me to grow in my professional development and have more confidence. "
"I am confident in my learning abilities and skills since doing online classes."
"Education plays a major role in confidence."
"I have a broader knowledge in management."
"I feel I am now more prepared to become a manager."

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 which was held last year in Portland, Oregon. Students get to participate in the scientific sessions and get to meet one another to develop a great learning community. Students get an opportunity to look at the latest equipment and hear scientific sessions in all areas of the field. This is a large internal meeting 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. Students are writing at an advanced level and improving their communication skills. Some go on to professionally publish case studies while still in this program.

Program Enrollment

The attached enrollment information is not separated out for the degree completion students. There are 78 active students in the degree completion program in the Fall of 2018-2019. See Appendix C.

Online	66	64	68	74	78
Full-Time	5	5	3	2	10
Part-Time	61	59	65	72	68

Table 2 Head Count

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.

Medical Imaging Technology	201314	201415	201516	201617	201718
Bachelor of Science	**160**	**132**	**155**	**146**	**146**
Klamath Falls	129	109	123	119	117
Diagnostic Medical Sonography	28	25	22	28	24
Echocardiography	19	16	20	18	19
Nuclear Med Molecular Imaging	14	14	15	14	13
Radiologic Science	49	40	48	42	48
Vascular Technology	19	14	18	17	13

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 $50,000 to $133, 000, with the average at $60,000. This program has a 98% success rate to finding employment. See Appendix D.

Pass Rates on Board and Licensure Exam
All the degree completion students have passed their licensure exams prior to starting in the

Section 3 – Program Educational Objectives

Program Educational Objectives

Students at the end of this course are able to:

1. Demonstrate diagnostic techniques, use sound judgment and good decision making to provide patient services.
2. Demonstrate great leadership skills in the field of echocardiography technology who contribute to the field on a local, regional or national level.
3. Synthesize and Analyze problems critically, communicate effectively and exemplify professional ethics.
4. Perform at a professional level and as lifelong learners and responsible citizens.

Student 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 cardioechocardiography anatomy.
- The student will demonstrate knowledge and understanding of cardioechocardiography physiology, pathology, and pathophysiology.
- The student will demonstrate knowledge and understanding of cardioechocardiography physical principles and instrumentation.
- The student will demonstrate knowledge and understanding of clinical cardioechocardiography 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.

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 2018-2019 to review the program. Two courses were eliminated from the program to be in alignment with the on-campus program.

The Degree Completion Echo Faculty met with the advisor board to be able to get feedback in all learning outcomes and discuss the needs of industry. The Advisory Board met in June 2019 where the results of assessment and student learning were discussed. We also conducted a survey of the advisory board members to ask for suggestions on improvements from curriculum design to new programs. The results are shared in this report. The Advisory Board consists of 5 OIT degree completion program graduates who serve the echo and echocardiography degree completion programs. 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. They 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. In addition, they are very interested in having advance practice certificates or degrees available.

Advisory Board Survey Results

The advisory board met in June 2018 and recommended that the program do more marketing and offer more advanced certificates and degrees (doctorate program).

Section 4 – Curriculum Map

Included in the Appendix

Curriculum changes were made to bring the degree completion program in alignment with the on-campus program to match all courses for NWCCU accreditation.

Section 5 – Program Student Learning Outcomes Cycle

Echocardiography Degree Completion Learning Outcomes Assessment Schedule	2018-2019	2019-2020	2020-202021
1. The student will demonstrate the ability to communicate effectively in oral, written and visual forms.		X	
2. The student will demonstrate the ability to work effectively in teams.	X		
3. The student will demonstrate an ability to provide basic patient care and comfort.			X

4. The student will employ professional judgment, and discretion including ethics	X		
5. The student will demonstrate knowledge and understanding of human gross anatomy sectional anatomy and normal and abnormal cardioechocardiography anatomy.		X	
6. The student will demonstrate knowledge and understanding of cardioechocardiography physiology, pathology, and pathophysiology.			X
7. The student will demonstrate knowledge and understanding of cardioechocardiography physical principles and instrumentation.			X
8. The student will demonstrate knowledge and understanding of clinical echocardiography diagnostic procedures and testing.		X	
9. The student will demonstrate an understanding of diverse cultural and humanistic traditions in the global society.	X		
10. The student will be able to perform scholarly research and to contribute that knowledge to the field of echocardiography.		X	

VI. Summary of Assessment Activities

The Echocardiography Degree Completion Program faculty conducted formal assessment of three student learning outcomes during 2018-2019.
Student Learning Outcome#2: The student will demonstrate the ability to work effectively in teams.
The Echocardiography faculty conducted an analysis of where this outcome is reflected in the curriculum. The mapping of this outcome in the Echocardiography curriculum can be found in Appendix A, Student Learning Outcome-Course Matrices Table A1.

For student learning outcome 2, two measurements were conducted on 25 students / employers in ECHO 420A Echo 420B courses during Winter and Spring Terms 2018-2019. Surveys were completed by the students and by their employers to assess the quality of team work they are providing on the job. It should be noted that the students are all board registered and are already professionally employed.

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	88%
Trains and Helps Others	Employer survey	1- 4 scale	80% at 3 or 4	88%
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 3: SLO #2: Team Work on the job: Echo 420 A and Echo 420 B

Strengths: Employers ranked the student above expectations in all categories regarding team working skills.
Weakness: This was based on skills in the job setting, faculty want to recheck this in the classroom as well.
As a result of the data, the OIT Echocardiography Degree Completion program faculty decided not to change what we are doing regarding building team working skills into the class assignments. The students in this degree completion program are seasoned workers in the field already and have been working full time before they start this program. It is not surprising that they have good team building skills on the job before even beginning the program. The faculty think we need to evaluate more teamwork skills in the classroom though, to be sure it is proficient in both settings.

Indirect Measure #2 Student Survey

A survey was sent to 25 students in Echo420 A and Echo 420B Winter and Spring Terms 2018-2019 and 25 students 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	Student survey	1- 4 scale	80% at 3 or 4	96%
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	84%
Works well with Patients	Student survey	1- 4 scale	80% at 3 or 4	
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	80%
Timely	Student survey	1- 4 scale	80% at 3 or 4	92%
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	88%
Systems Monitoring	Student survey	1- 4 scale	80% at 3 or 4	88%

Table 4: SLO #2: Team Work on the job: Echo420 A and Echo 420 B Students self-ranked in all categories

Strengths: Students feel they 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. The faculty would like to retest this measure specifically as it relates to classroom work.

As a result of the data, the OIT Echocardiography Degree Completion program faculty decided to continue doing what we are doing as we have good results with team work among the students. The faculty discussed measuring teams with different assignments to test this skill in a few ways.

B. Student Learning Outcome #4: The student will employ professional judgment, and discretion including ethics.

The Echocardiography Degree Completion Program faculty conducted an analysis of where this outcome is reflected in the curriculum. The mapping of this outcome in the Echocardiography curriculum can be found in Appendix A, Student Learning Outcome-Course Matrices Table A2.

Direct Measure #1
The students in Echo 420A and Echo420B were new to the program. During winter and spring quarters 2018-2019 there were 25 new 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 5 below).

Performance Criteria	Assessment Method	Measurement Scale	Minimum Acceptable Performance	Results
the ability to perform the tasks and roles required (competency	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	100%
seeing the whole- getting the bigger picture,	Grading Rubric	1- 4 scale	80% at 3 or 4	82%
developing expertise,	Grading Rubric	1- 4 scale	80% at 3 or 4	92%
problem solving using logic and reasoning	Grading Rubric	1- 4 scale	80% at 3 or 4	100%

Table 5: SLO #4: Professional Judgment: Echo 420A and Echo420B Winter and Spring Terms

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, the OIT Echocardiography Degree Completion program faculty feel students do a good job on deciding the facts of the 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

The students in Echo 385 Echo Lab Management were new to the program. During winter and spring quarters 2018-2019 there were 13 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 6 below).

Performance Criteria	Assessment Method	Measurement Scale	Minimum Acceptable Performance	Results
the ability to perform the tasks and roles required (competency	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	84%
seeing the whole- getting the bigger picture,	Grading Rubric	1- 4 scale	80% at 3 or 4	92%
developing expertise,	Grading Rubric	1- 4 scale	80% at 3 or 4	100%
problem solving using logic and reasoning	Grading Rubric	1- 4 scale	80% at 3 or 4	100%

Table 6: SLO #4: Professional Judgment: Echo 385

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, the OIT Echocardiography Degree Completion program faculty decided the students are good at professional development. Faculty discussed how to measure this again with different assignments in the future. It does really help that these students are already working clinical jobs and are experienced in the field before starting this program. We know from past assessments when students self rate their professional judgement skill, that they rate it very high.

C: **Student Learning Outcome #9: The student will demonstrate an understanding of diverse cultural and humanistic traditions in the global society.**

The Echocardiography Degree Completion faculty conducted an analysis of where this outcome is reflected in the curriculum. The mapping of this outcome in the Echocardiograph curriculum can be found in Appendix A, Student Learning Outcome-Course Matrices Table A3.

Direct Measure #1

The faculty assessed this outcome in Echo 385 on 13 students during Winter and Spring quarters 2018-2019 using a cultural awareness assignment and grading rubric. The faculty rated the proficiency of students using the performance criteria described in Table #7 below.

Performance Criteria	Assessment Method	Measurement Scale	Minimum Acceptable Performance	Results
Appropriately works to gather patient history from patients from diverse backgrounds	Grading Rubric	1- 4 scale	80% at 3 or 4	100%
Avoids demonstration of prejudice	Grading Rubric	1- 4 scale	80% at 3 or 4	100%
Recognizes different cultures and traditions in medicine	Grading Rubric	1- 4 scale	80% at 3 or 4	100%
Recognize how cultural differences can influence hiring practices	Grading Rubric	1- 4 scale	80% at 3 or 4	100%

Table 7: Cultural Competency Echo 385 2018-2019

Strengths: Students completed a cultural competency assignment and either met or surpassed the benchmark to show that they have good skills in this area are appear to be culturally competent.

Weakness: The weakness on this assessment is that it does not show an in-depth measurement as it is based just on one assignment and really to measure this it should be done on a bigger scale.

Improvement: The faculty discussed how to measure retention, diversity gaps and graduation rates across all cultural groups and socio-economic groups to look at the equity gaps. This will be a better sense of diversity issues related to courses taught in this program. Using a combination of IR data and assessment of student work together will give faculty a better look at diversity issues.

VII. Evidence of Student Learning

During the 2018-2019 academic year, the Echocardiography Degree Completion faculty formally assessed the student learning outcomes summarized below. The results of this year's assessment were discussed with the Department Chair and Department Assessment Coordinator in June, 2019.

Student 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.

Strengths: Employers ranked the student above expectations in all categories regarding team working skills.
Weakness: This was based on skills in the job setting, faculty want to recheck this in the classroom as well. As a result of the data, the OIT Echocardiography Degree Completion program faculty decided not to change what we are doing regarding building team working skills into the class assignments. The students in this degree completion program are seasoned workers in the field already and have been working full time before they start this program. It is not surprising that they have good team building skills on the job before even beginning the program. The faculty think we need to evaluate more teamwork skills in the classroom though, to be sure it is proficient in both settings.

Strengths: Students feel they 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. The faculty would like to retest this measure specifically as it relates to classroom work.
As a result of the data, the OIT Echocardiography Degree Completion program faculty decided to continue doing what we are doing as we have good results with team work among the students. The faculty discussed measuring teams with different assignments to test this skill in a few ways.

Student Learning Outcome #4: The student will employ professional judgment, and discretion including ethics.

The purpose of this assessment was to determine if students are using professional judgment and discretion including ethics.

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, the OIT Echocardiography Degree Completion program faculty feel students do a good job on deciding the facts of the 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.

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, the OIT Echocardiography Degree Completion program faculty decided the students are good at professional development. Faculty discussed how to measure this again with different assignments in the future. It does really help that these students are already working clinical jobs and are experienced in the field before starting this program. We know from past assessments when students self rate their professional judgement skill, that they rate it very high.

Student Learning Outcome #9: The student will demonstrate an understanding of diverse cultural and humanistic traditions in the global society.

The purpose of this assessment was to determine if students have an understanding of diverse cultural and humanistic traditions in the global society based on an assignment in the lab management course.

Strengths: Students completed a cultural competency assignment and either met or surpassed the benchmark to show that they have good skills in this area are appear to be culturally competent. Weakness: The weakness on this assessment is that it does not show an in-depth measurement as it is based just on one assignment and really to measure this it should be done on a bigger scale. Improvement: The faculty discussed how to measure retention, diversity gaps and graduation rates across all cultural groups and socio-economic groups to look at the equity gaps. This will be a better sense of diversity issues related to courses taught in this program. Using a combination of IR data and assessment of student work together will give faculty a better look at diversity issues.

Results of Student Surveys

71% of the students rate their education at OIT as 5/5 and 29% as 4/5. The students describe many meaningful ways they received their education. Many said, "they love research" now as a result of their experience at OIT. Many students report wanting to move into management positions and many are going on to graduate school. 64% of the students are highly proficient in the ESLOs. Most of the students came to the program because of its good reputation.

Student Quotes from the Exit Survey

"What have been the three best things about your major? These might be experiences, particular courses or professors, general characteristics or features of the program--anything at all that was important to you."

"I was able to see a different aspect of the work I currently do. I was able to observe other modalities as they pertain to scans and procedures I do."

"I appreciate the care of the majority of the professors. Dr. Isaacson and Dr. Lancaster were excellent teachers and she provided encouragement and critiques throughout my time at OIT.

Beside all major related courses my favorites were echo lab management, healthcare management, education and leadership, theses are courses the two year programs do not offer and they are very helpful for thinking outside of the box. I have also enjoyed discussion boards and talking to colleges, been able to realize our diversity and share our common interest was amazing aspect of this course. And one thing I will miss when I graduate in few weeks is the database access."

"The management courses have been helpful and I am thankful they were required in the echo program. The echo courses have allowed me to grow in my knowledge in Echocardiography. Dr. Issacson has been a great resource in all of my courses and giving guidance. She is encouraging and gives effect feedback."

"1. Gaining knowledge about diseases of the heart, and diseases that can cause heart issues. 2. having classes that go into the other sonography fields such as vascular and abdominal.

I really like the required observation project, that really is an eye opener. I hated reading everybody's post, yet I learned so much from their own observation."

"1. flexibility 2. caring and supportive professors 3. course materials are relevant to the field of practice,"

Results of Board Member Surveys

Board members want to see OIT exhibit at the national meetings and to market more. Board members want to see more advanced practices taught in the form of advanced practitioner degrees or certificates.

VIII. Evidence of Improvement in Student Learning

- Two courses were eliminated to better align with the oncampus program for accreditation purposes.

- Even though students met the benchmark on each assessment, we think we need to measure equity gaps across racial groups and low socio-economic groups to see where gaps are in this program.
- More APA coaching and examples are given for students who have not been in school for a long time and who have English as a second language.

IX. Data-driven Action Plans: Changes Resulting from Assessment

Faculty agreed that to measure teamwork, professional judgment and cultural awareness that it will take more than one assessment on a single assignment. All of these topics are big and have many nuisances to them. The faculty agree to reassess changing up assignments and rubrics to get a better sense of how students are doing. It may be helpful to survey students more as well. In addition, we need more student participating in the student exit surveys (survey results are in the appendix). Faculty want to add IR data on equity gaps across racial groups and low socio-echonomic groups to get a better idea of equity issues in this program. We also have a lot of students with English as a second language and we need to develop more tutoring support for them as they move through the program.

Appendix A1

Curriculum Map for Echocardiography Degree Completion Program

SLO: 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

Course #	Echo Degree Completion	CR	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 Echo	3	IE			
ECHO 332	Invasive Cardiology	3		IE		
ECHO 334	Echo IV	4				
ECHO 365	Abdominal/Rental Testing	4	IE	IE	IE	
ECHO 376	Survey of Echocardiography Testing	3		IE		
ECHO 385	Echo Lab Management	3	IE	IE	IE	
ECHO 420A	Echo Externship A	8	RE		RE	
ECHO 420 B	Echo Externship B	7		RE		
ECHO 421	Echo Senior Project	4		IE		
SPE 321	Small Group & Team Comm	3				
	Comm Gen Ed elective	3				

Appendix A2

Curriculum Map for Echocardiography Degree Completion Program
SLO #4: The student will employ professional judgment, 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

Course #	Echo Degree Completion	CR	Fall	Winter	Spring	Summer
BUS 316	Total Quality in Health Care	3				
BUS 317	Health Care Management	3				
CHE 210	Clinical Pharmacology	3	R			
ECHO 325	Pediatric Echo	3	I E			
ECHO 332	Invasive Cardiology	3		IE		
ECHO 334	Echo IV	4				
ECHO 365	Abdominal/Rental Testing	4	I E	IE	IE	IE
ECHO 376	Survey of Echocardiography Testing	3		IE		IE
ECHO 385	Echo Lab Management	3	I E	IE	IE	IE
ECHO 420A	Echo Externship A	8	R E		R E	
ECHO 420 B	Echo Externship B	7		RE		RE
ECHO 421	Echo Senior Project	4				
SPE 321	Small Group & Team Comm	3				
	Comm Gen Ed elective	3				

Appendix A3

Curriculum Map for Echocardiography Degree Completion Program

SLO 9: The student will demonstrate knowledge and understanding of echocardiography physical principles and instrumentation.

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

Course #	Echo Degree Completion	CR	Fall	Winter	Spring	Summer
BUS 316	Total Quality in Health Care	3				
BUS 317	Health Care Management	3				
CHE 210	Clinical Pharmacology	3	R			
ECHO 325	Pediatric Echo	3	I E			
ECHO 332	Invasive Cardiology	3		IE		
ECHO 334	Echo IV	4				
ECHO 365	Abdominal/Rental Testing	4	I E	IE	IE	IE
ECHO 376	Survey of Echocardiography Testing	3		IE		IE
ECHO 385	Echo Lab Management	3	I E	IE	IE	IE
ECHO 420A	Echo Externship A	8	R E		R E	
ECHO 420 B	Echo Externship B	7		RE		RE
ECHO 421	Echo Senior Project	4				
SPE 321	Small Group & Team Comm	3				
	Comm Gen Ed elective	3				

Oregon Tech Graduate Outcome Data

	% Employed		% Continuing Ed		% Seeking		% Not Seeking		Success Rate	
a=2015 / 2016 / 2017 combined										
b=2016 / 2017 / 2018 combined	a	b	a	b	a	b	a	b	a	b
% among those reporting outcomes	90.0	89.9	6.7	7.0	2.8	2.5	0.5	0.5	97.2	97.5
Biology-Health Sciences	41	50	59	47	0	0	0	3	100	
Business: Accounting	75	81	13	13	13	6	0	0	87	
Business: Marketing	94	100	0	0	6	0	0	0	94	
Business: SmBus/Entrepreneurship	100	100	0	0	0	0	0	0	100	
Civil Engineering	98	96	2	4	0	0	0	0	100	
Communication Studies	80	73	10	18	10	9	0	0	90	
Computer Engineering Technology	100	93	0	7	0	0	0	0	100	
Dental Hygiene	96	90	3	5	0	3	0	2	100	
Diagnostic Medical Sonography	100	100	0	0	0	0	0	0	100	
Echocardiography	94	94	6	6	0	0	0	0	100	100

Echo

	% Seeking		% Not Seeking		Success Rate		Median Salary	
	a	b	a	b	a	b	a	b
4	2.8	2.5	0.5	0.5	97.2	97.5	$ 58,000	$ 60,000
5	0	0	0	3	100		$ 34,500	$ 35,000
6	13	6	0	0	87		$ 43,500	$ 45,000
7	6	0	0	0	94		$ 48,000	$ 44,000
8	0	0	0	0	100		$ 39,900	$ 39,900
9	0	0	0	0	100		$ 55,000	$ 56,500
10	10	9	0	0	90		$ 39,252	na
11	0	0	0	0	100		$ 64,000	$ 65,500
12	0	3	0	2	100		$ 65,000	$ 65,000
13	0	0	0	0	100		$ 63,000	$ 67,920
14	0	0	0	0	100	100	$ 65,000	$ 65,000

A	B	C	D	E	F	G	H	I	J	K
2018	BS	Echocardiography					$ 100,000		1	Employed
2018	BS	Echocardiography					$ 100,000		1	Employed
2018	BS	Echocardiography					$ 90,000		1	Employed
2018	BS	Echocardiography					$ 65,000		1	Employed
2018	BS	Echocardiography						$ 40.00	1	Employed
2018	BS	Echocardiography						$ 33.00	1	Employed
2018	BS	Echocardiography						$ 32.13	1	Employed
2018	BS	Echocardiography						$ 32.00	1	Employed
2018	BS	Echocardiography						$ 30.00	1	Employed
2018	BS	Echocardiography							1	Employed
2018	BS	Echocardiography							1	Employed
2018	BS	Echocardiography							1	Employed
2018	BS	Echocardiography							1	Employed
2018	BS	Echocardiography							1	Employed
2018	BS	Echocardiography							1	Employed
2018	BS	Echocardiography							1	Employed
2018	BS	Echocardiography							1	Employed
2018	BS	Echocardiography							1	Employed
2018	BS	Echocardiography							1	Employed
2017	BS	Echocardiography					$ 91,250		1	Employed F/T
2017	BS	Echocardiography					$ 90,000		1	Employed F/T
2017	BS	Echocardiography					$ 73,000		1	Employed F/T
2017	BS	Echocardiography					$ 68,640		1	Employed F/T
2017	BS	Echocardiography					$ 67,226		1	Employed F/T
2017	BS	Echocardiography					$ 65,000		1	Employed F/T
2017	BS	Echocardiography					$ 65,000		1	Employed F/T
2017	BS	Echocardiography					$ 62,920		1	Employed F/T
2017	BS	Echocardiography					$ 60,000		1	Employed F/T
2017	BS	Echocardiography					$ 59,520		1	Employed F/T
2017	BS	Echocardiography					$ 58,240		1	Employed F/T
2017	BS	Echocardiography					$ 50,000	$ 32.00	1	Employed P/T

Program Report

(2018-2019) Student Exit Survey
August 22nd 2019, 1:00 pm PDT

Q ESLO 1 - Oregon Tech Essential Student Learning Outcomes Please rate your proficiency in the following areas.

64% High proficiency	36% Proficiency
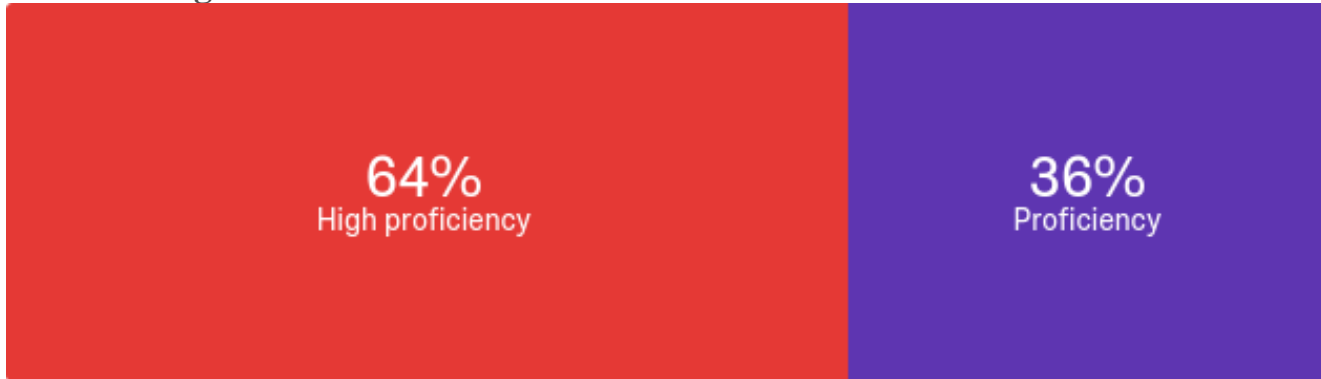
🟥 High proficiency   🟪 Proficiency   🟦 Some proficiency   🟩 Limited proficiency

#	Question	High proficiency		Proficiency		Some proficiency		Limited proficiency		Total
1	ESLO 1a. Communication: Writing effectively	63.64%	7	36.36%	4	0.00%	0	0.00%	0	11
2	ESLO 1b. Communication: Speaking effectively	45.45%	5	54.55%	6	0.00%	0	0.00%	0	11
3	ESLO 2. Inquiry & Analysis: Thinking critically and analytically	54.55%	6	45.45%	5	0.00%	0	0.00%	0	11
4	ESLO 3. Ethical Reasoning: Making ethical judgements	90.91%	10	9.09%	1	0.00%	0	0.00%	0	11
5	ESLO 4. Teamwork: Work effectively with groups and teams	72.73%	8	27.27%	3	0.00%	0	0.00%	0	11
6	ESLO 5. Quantitative Literacy: Using quantitative/numerical information to solve problems, evaluate claims, and support decisions	63.64%	7	36.36%	4	0.00%	0	0.00%	0	11
7	ESLO 6. Diverse Perspectives: Understanding of diverse perspectives to improve interactions with others	63.64%	7	36.36%	4	0.00%	0	0.00%	0	11

Q ESLO 2 - Oregon Tech Essential Student Learning Outcomes   How much has your experience at Oregon Tech contributed to your knowledge, skills, and personal development in these areas?
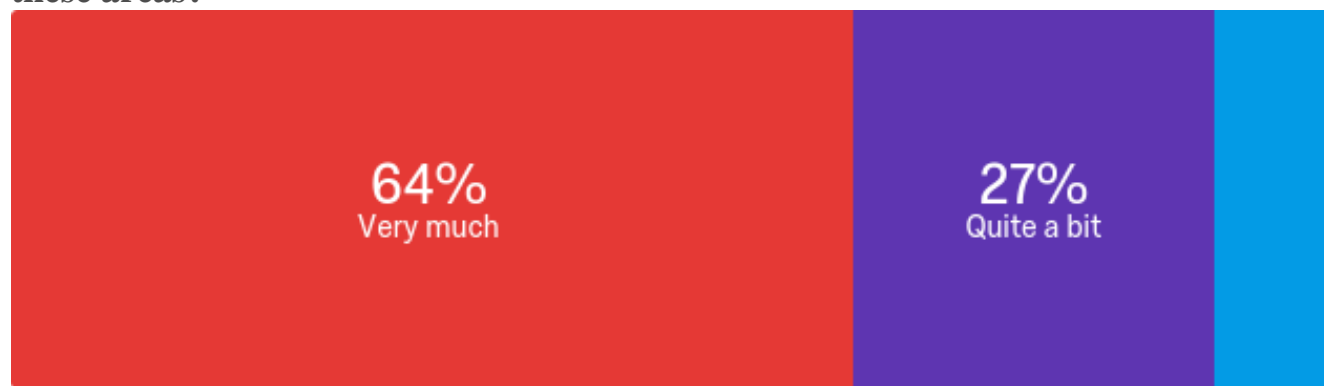
#	Question	Very much		Quite a bit		Some		Very little		Total
1	ESLO 1a. Communication: Writing effectively	63.64%	7	27.27%	3	9.09%	1	0.00%	0	11
2	ESLO 1b. Communication: Speaking effectively	54.55%	6	36.36%	4	9.09%	1	0.00%	0	11
3	ESLO 2. Inquiry & Analysis: Thinking critically and analytically	72.73%	8	27.27%	3	0.00%	0	0.00%	0	11
4	ESLO 3. Ethical Reasoning: Making ethical judgements	63.64%	7	27.27%	3	0.00%	0	9.09%	1	11
5	ESLO 4. Teamwork: Work effectively with groups and teams	63.64%	7	27.27%	3	9.09%	1	0.00%	0	11
6	ESLO 5. Quantitative Literacy: Using quantitative/numerical information to solve problems, evaluate claims, and support decisions	50.00%	5	50.00%	5	0.00%	0	0.00%	0	10
7	ESLO 6. Diverse Perspectives: Understanding of diverse perspectives to improve interactions with others	72.73%	8	27.27%	3	0.00%	0	0.00%	0	11

Q BECO 1 - Program Student Learning Outcomes for Echocardiography B.S. Degree Completion
Please rate your proficiency in the following areas.

1. The student will demonstrate the ability to communicate effectively in o...
2. The student will demonstrate the ability to work effectively in teams.
3. The student will demonstrate an ability to provide basic patient care an...
4. The student will employ professional judgment and discretion.
5. The student will demonstrate knowledge and understanding of human gross ...
6. The student will demonstrate knowledge and understanding of cardiovascul...
7. The student will demonstrate knowledge and understanding of cardiovascul...
8. The student will demonstrate knowledge and understanding of clinical ech...
9. The student will demonstrate an understanding of diverse cultural and hu...
10. The student will be able to perform scholarly research and to contribut...

#	Question	High proficiency		Proficiency		Some proficiency		Limited proficiency		Total
1	1. The student will demonstrate the ability to communicate effectively in oral, written and visual forms.	81.82%	9	18.18%	2	0.00%	0	0.00%	0	11
2	2. The student will demonstrate the ability to work effectively in teams.	72.73%	8	27.27%	3	0.00%	0	0.00%	0	11
3	3. The student will demonstrate an ability to provide basic patient care and comfort.	81.82%	9	18.18%	2	0.00%	0	0.00%	0	11
4	4. The student will employ professional judgment and discretion.	90.91%	10	9.09%	1	0.00%	0	0.00%	0	11
5	5. The student will demonstrate knowledge and understanding of	81.82%	9	18.18%	2	0.00%	0	0.00%	0	11

	human gross anatomy, sectional anatomy, and normal and abnormal cardiovascular anatomy.									
6	6. The student will demonstrate knowledge and understanding of cardiovascular physiology, pathology, and pathophysiology.	90.91%	10	9.09%	1	0.00%	0	0.00%	0	11
7	7. The student will demonstrate knowledge and understanding of cardiovascular physical principles and instrumentation.	81.82%	9	18.18%	2	0.00%	0	0.00%	0	11
8	8. The student will demonstrate knowledge and understanding of clinical echocardiography diagnostic procedures and testing.	90.91%	10	9.09%	1	0.00%	0	0.00%	0	11
9	9. The student will demonstrate an understanding of diverse cultural and humanistic traditions in the global society.	81.82%	9	18.18%	2	0.00%	0	0.00%	0	11
10	10. The student will be able to perform scholarly research and to contribute that knowledge to the field of echocardiography.	90.91%	10	0.00%	0	0.00%	0	9.09%	1	11

Q BECO 2 - Program Student Learning Outcomes for Echocardiography B.S. Degree Completion
How much has your experience at Oregon Tech contributed to your knowledge, skills, and personal development in these areas?

Legend:
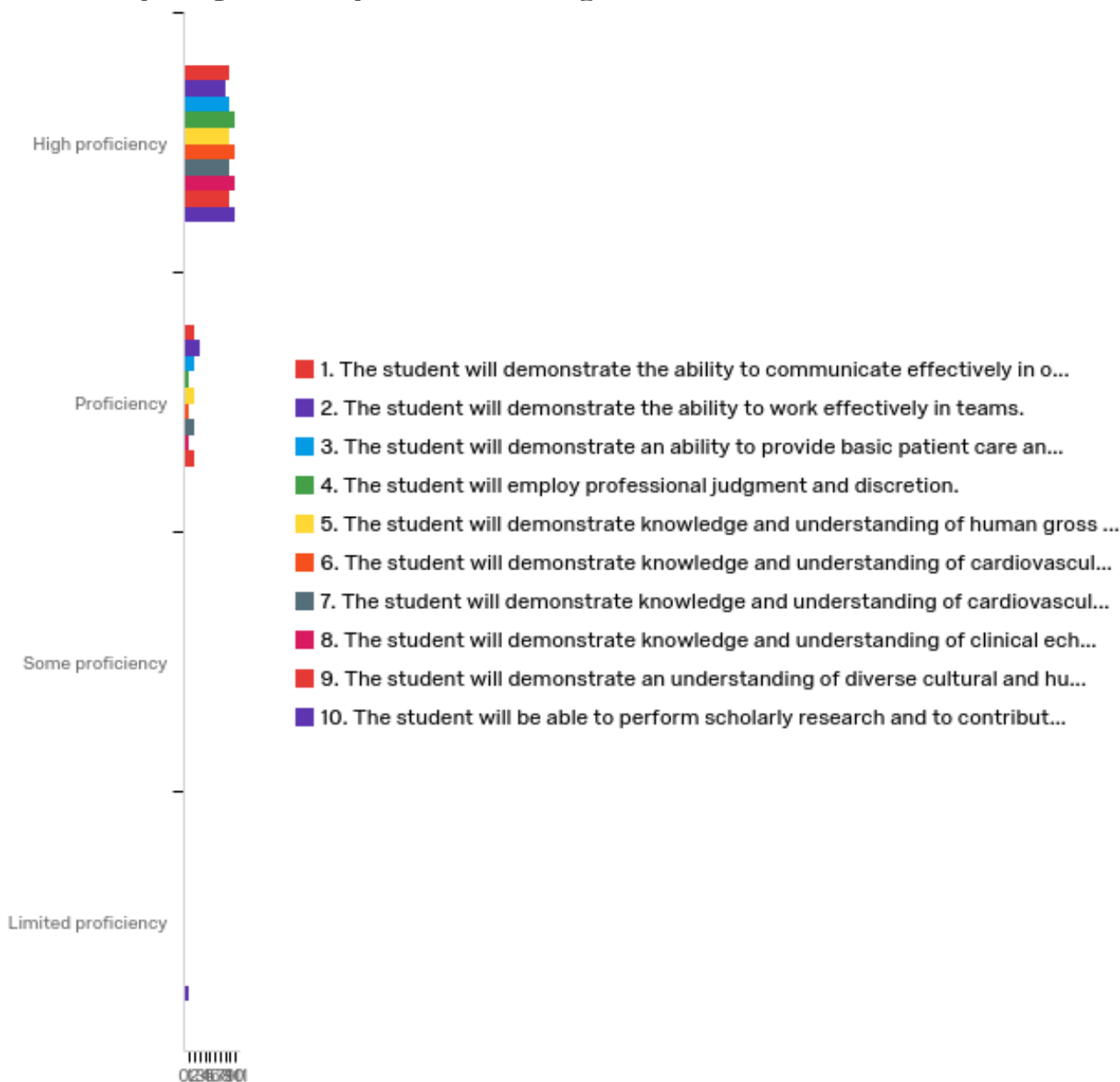- 1. The student will demonstrate the ability to communicate effectively in o...
- 2. The student will demonstrate the ability to work effectively in teams.
- 3. The student will demonstrate an ability to provide basic patient care an...
- 4. The student will employ professional judgment and discretion.
- 5. The student will demonstrate knowledge and understanding of human gross ...
- 6. The student will demonstrate knowledge and understanding of cardiovascul...
- 7. The student will demonstrate knowledge and understanding of cardiovascul...
- 8. The student will demonstrate knowledge and understanding of clinical ech...
- 9. The student will demonstrate an understanding of diverse cultural and hu...
- 10. The student will be able to perform scholarly research and to contribut...

#	Question	Very much		Quite a bit		Some		Very little		Total
1	1. The student will demonstrate the ability to communicate effectively in oral, written and visual forms.	70.00%	7	20.00%	2	10.00%	1	0.00%	0	10
2	2. The student will demonstrate the ability to work effectively in teams.	63.64%	7	18.18%	2	18.18%	2	0.00%	0	11
3	3. The student will demonstrate an ability to provide basic patient care and comfort.	63.64%	7	27.27%	3	9.09%	1	0.00%	0	11
4	4. The student will employ professional judgment and discretion.	80.00%	8	0.00%	0	20.00%	2	0.00%	0	10
5	5. The student will demonstrate knowledge and understanding of human gross anatomy, sectional anatomy, and normal and abnormal cardiovascular anatomy.	63.64%	7	27.27%	3	9.09%	1	0.00%	0	11

6	6. The student will demonstrate knowledge and understanding of cardiovascular physiology, pathology, and pathophysiology.	72.73%	8	18.18%	2	9.09%	1	0.00%	0	11
7	7. The student will demonstrate knowledge and understanding of cardiovascular physical principles and instrumentation.	54.55%	6	27.27%	3	18.18%	2	0.00%	0	11
8	8. The student will demonstrate knowledge and understanding of clinical echocardiography diagnostic procedures and testing.	72.73%	8	9.09%	1	18.18%	2	0.00%	0	11
9	9. The student will demonstrate an understanding of diverse cultural and humanistic traditions in the global society.	63.64%	7	27.27%	3	9.09%	1	0.00%	0	11
10	10. The student will be able to perform scholarly research and to contribute that knowledge to the field of echocardiography.	81.82%	9	0.00%	0	18.18%	2	0.00%	0	11

Q BECO 3 - What attracted to you to Oregon Tech? Please check all that apply.
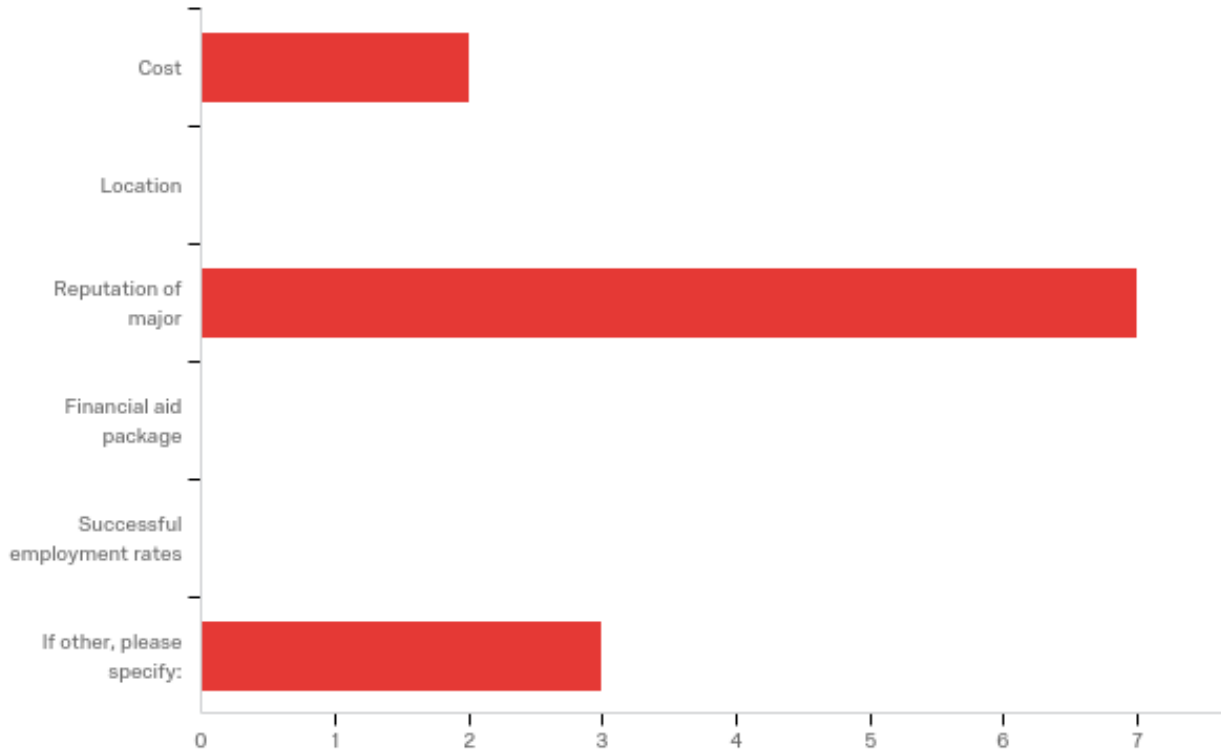
#		Answer	%	Count
1		Cost	16.67%	2
2		Location	0.00%	0
3		Reputation of major	58.33%	7
4		Financial aid package	0.00%	0
5		Successful employment rates	0.00%	0
6		If other, please specify:	25.00%	3
		Total	100%	12

If other, please specify:

If other, please specify: - Text
Online and had classes in my specialty area
only accredited bachelor degree of ultrasound online
cost and ability to attend classes online

Q BECO 4 - Was Oregon Tech your first choice?
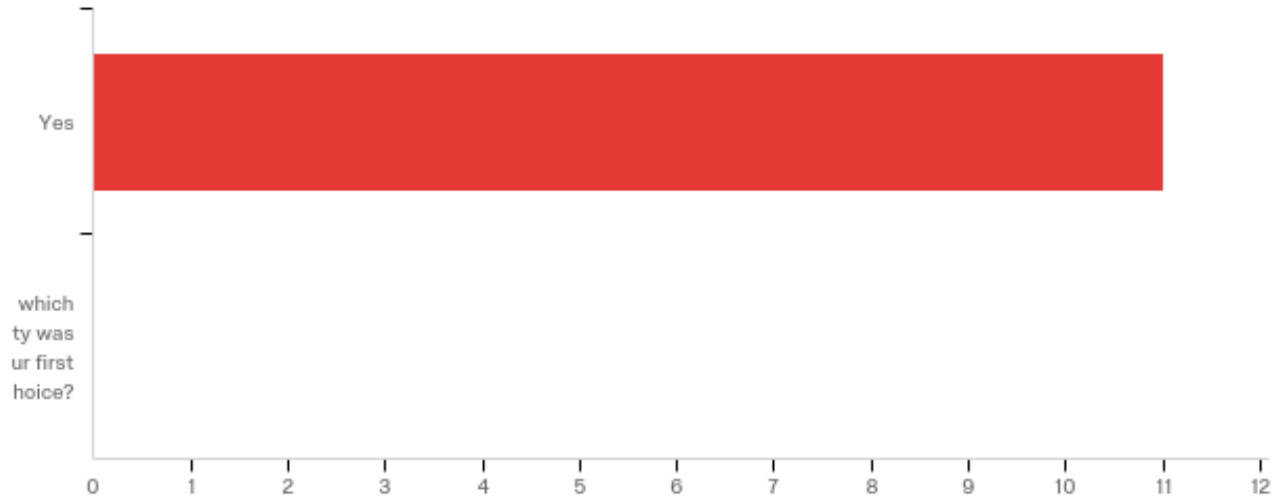
#	Answer	%	Count
1	Yes	100.00%	11
2	If not, which university was your first choice?	0.00%	0
	Total	100%	11

If not, which university was your first choice?
If not, which university was your first choice? - Text

Q BECO 5 - Was Echocardiography Degree Completion your first choice of major?
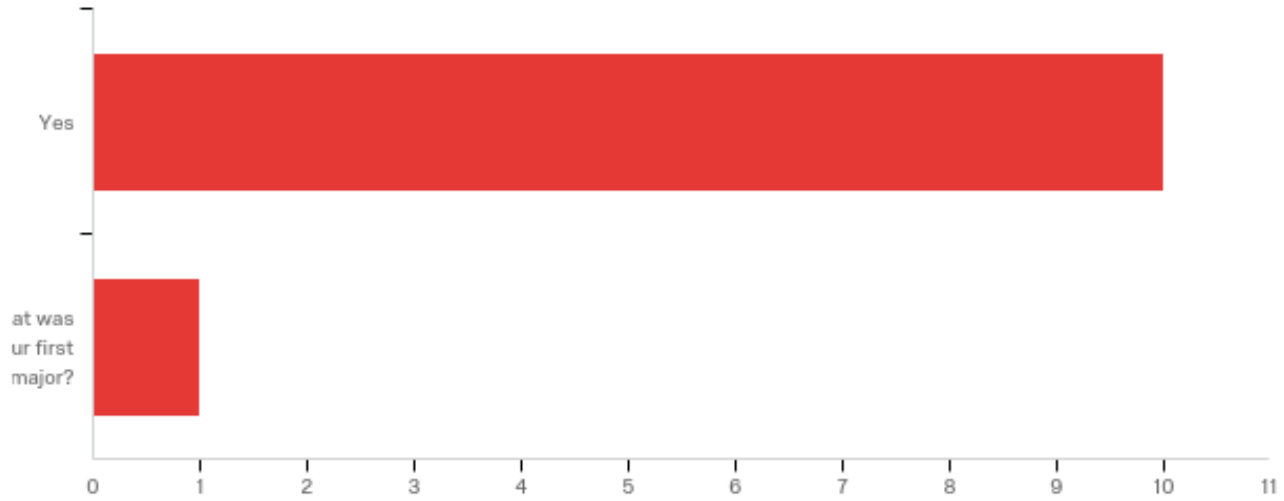
#	Answer	%	Count
1	Yes	90.91%	10
2	If not, what was your first choice of major?	9.09%	1
	Total	100%	11

If not, what was your first choice of major?

If not, what was your first choice of major? - Text
Public Administration

Q BECO 6 - I entered the program as a: Check all that apply.
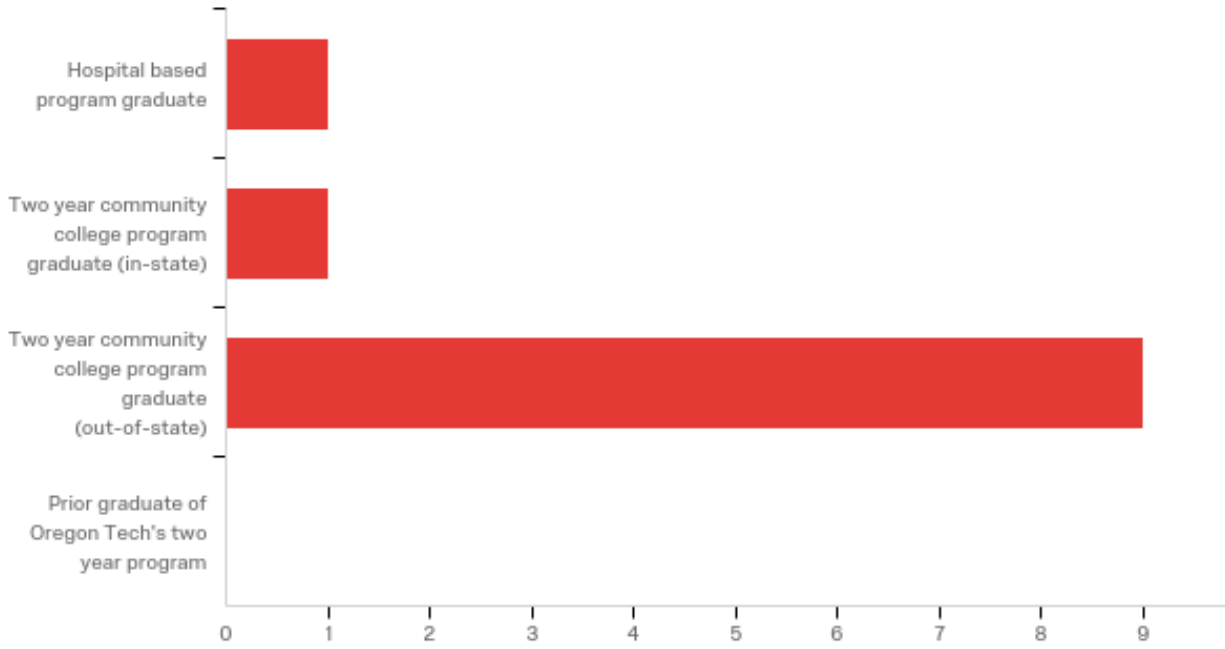
#	Answer	%	Count
1	Hospital based program graduate	9.09%	1
2	Two year community college program graduate (in-state)	9.09%	1
3	Two year community college program graduate (out-of-state)	81.82%	9
4	Prior graduate of Oregon Tech's two year program	0.00%	0
	Total	100%	11

Q BECO 7 - Please indicate your level of satisfaction with advising in the Echocardiography Degree Completion program.
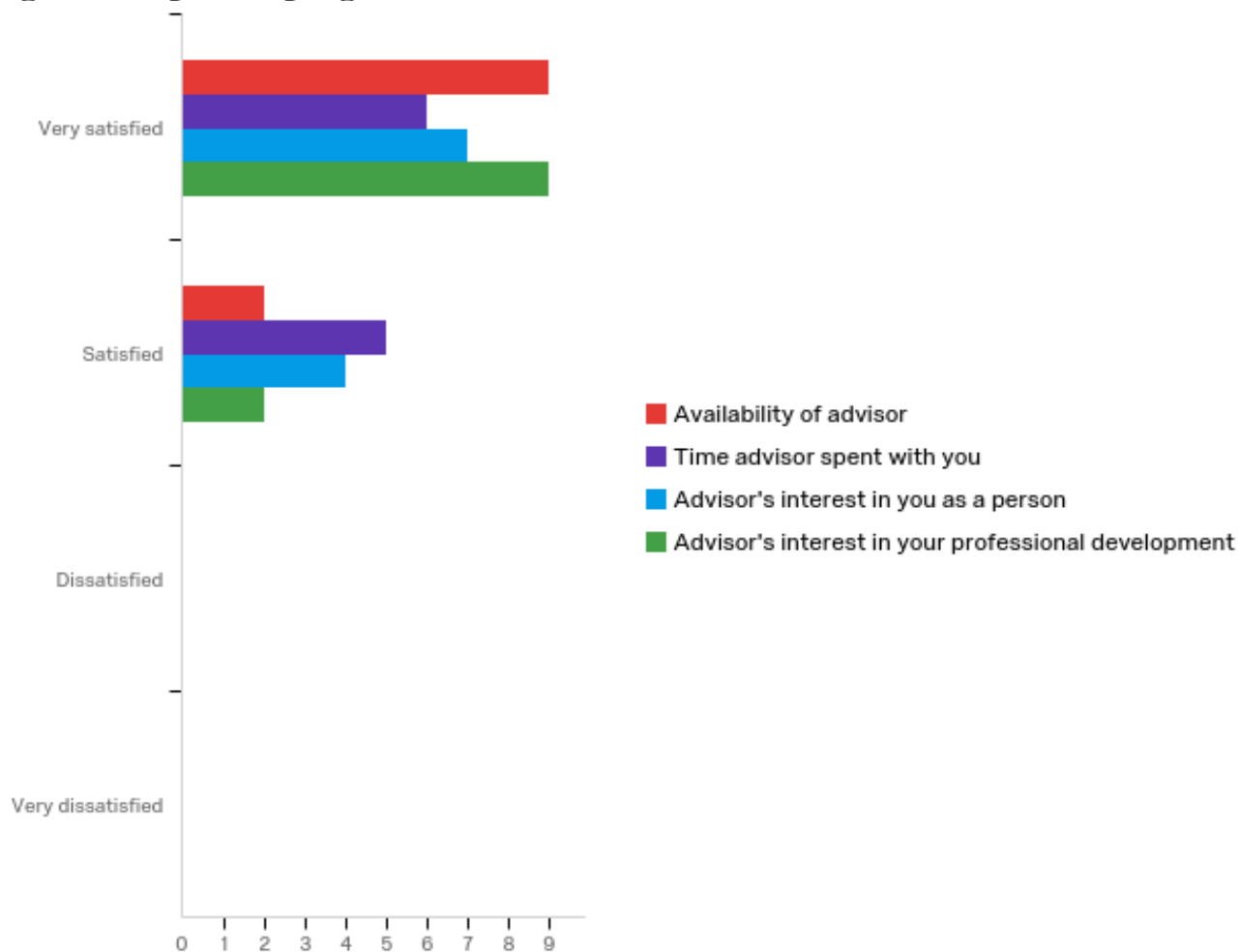
#	Question	Very satisfied		Satisfied		Dissatisfied		Very dissatisfied		Total
1	Availability of advisor	81.82%	9	18.18%	2	0.00%	0	0.00%	0	11
2	Time advisor spent with you	54.55%	6	45.45%	5	0.00%	0	0.00%	0	11
3	Advisor's interest in you as a person	63.64%	7	36.36%	4	0.00%	0	0.00%	0	11
4	Advisor's interest in your professional development	81.82%	9	18.18%	2	0.00%	0	0.00%	0	11

Q BECO 8 - Do you have any comments about Echocardiography Degree Completion advising?

Do you have any comments about Echocardiography Degree Completion advising?

Very Kind and supportive advisor

The communication with the advising department has been exceptional and always willing to help.

Q BECO 9 - Please provide feedback about the Echocardiography Degree Completion program by indicating how much you agree with each one of the following statements.
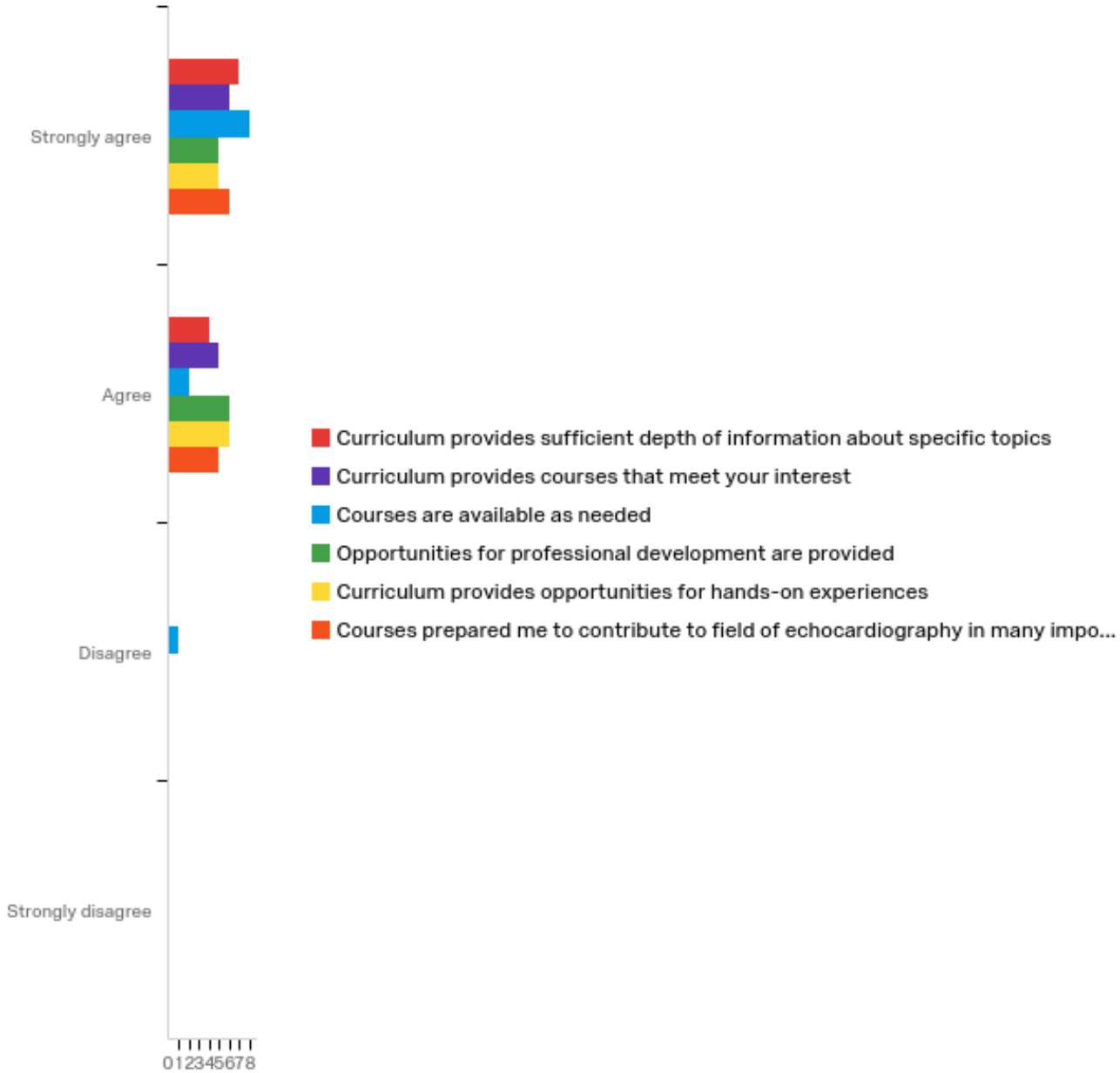
#	Question	Strongly agree		Agree		Disagree		Strongly disagree		Total
1	Curriculum provides sufficient depth of information about specific topics	63.64%	7	36.36%	4	0.00%	0	0.00%	0	11
2	Curriculum provides courses that meet your interest	54.55%	6	45.45%	5	0.00%	0	0.00%	0	11
3	Courses are available as needed	72.73%	8	18.18%	2	9.09%	1	0.00%	0	11
4	Opportunities for professional development are provided	45.45%	5	54.55%	6	0.00%	0	0.00%	0	11
5	Curriculum provides opportunities for hands-on experiences	45.45%	5	54.55%	6	0.00%	0	0.00%	0	11
6	Courses prepared me to contribute to field of echocardiography in many important way	54.55%	6	45.45%	5	0.00%	0	0.00%	0	11

Q BECO 10 - Please provide feedback on the Echocardiography Degree Completion faculty.

Legend:
- Faculty are fair
- Faculty are honoring of you as an adult learner
- Faculty are helpful
- Faculty help you understand how what you are learning could be applied
- Faculty help you develop intellectually
- Faculty make courses interesting
- Faculty make courses relevant
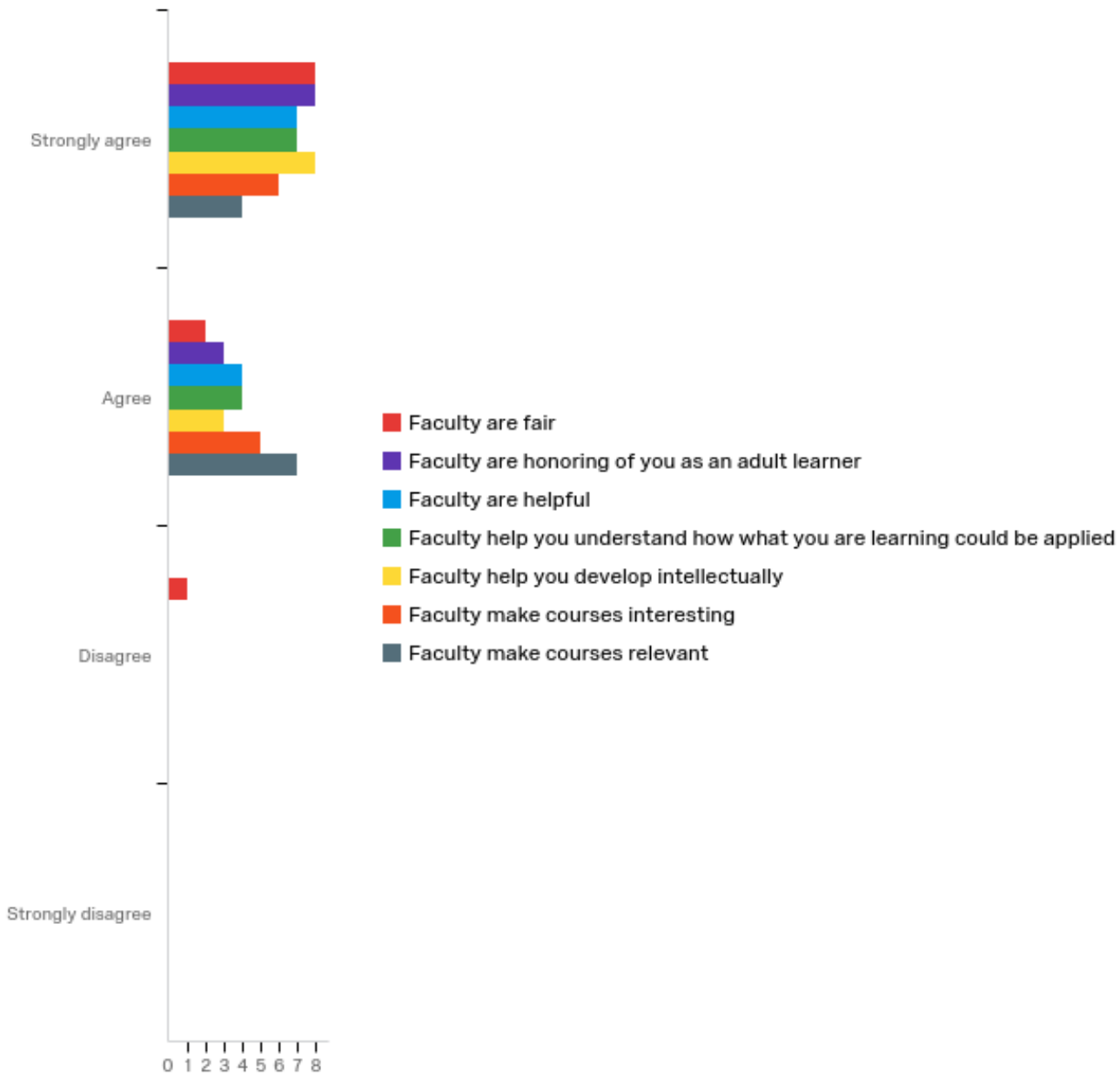
#	Question	Strongly agree		Agree		Disagree		Strongly disagree		Total
1	Faculty are fair	72.73%	8	18.18%	2	9.09%	1	0.00%	0	11
2	Faculty are honoring of you as an adult learner	72.73%	8	27.27%	3	0.00%	0	0.00%	0	11
3	Faculty are helpful	63.64%	7	36.36%	4	0.00%	0	0.00%	0	11
4	Faculty help you understand how what you are learning could be applied	63.64%	7	36.36%	4	0.00%	0	0.00%	0	11
5	Faculty help you develop intellectually	72.73%	8	27.27%	3	0.00%	0	0.00%	0	11
6	Faculty make courses interesting	54.55%	6	45.45%	5	0.00%	0	0.00%	0	11
7	Faculty make courses relevant	36.36%	4	63.64%	7	0.00%	0	0.00%	0	11

Q BECO 11 - Please provide feedback about how useful the following Oregon Tech services have been to you.
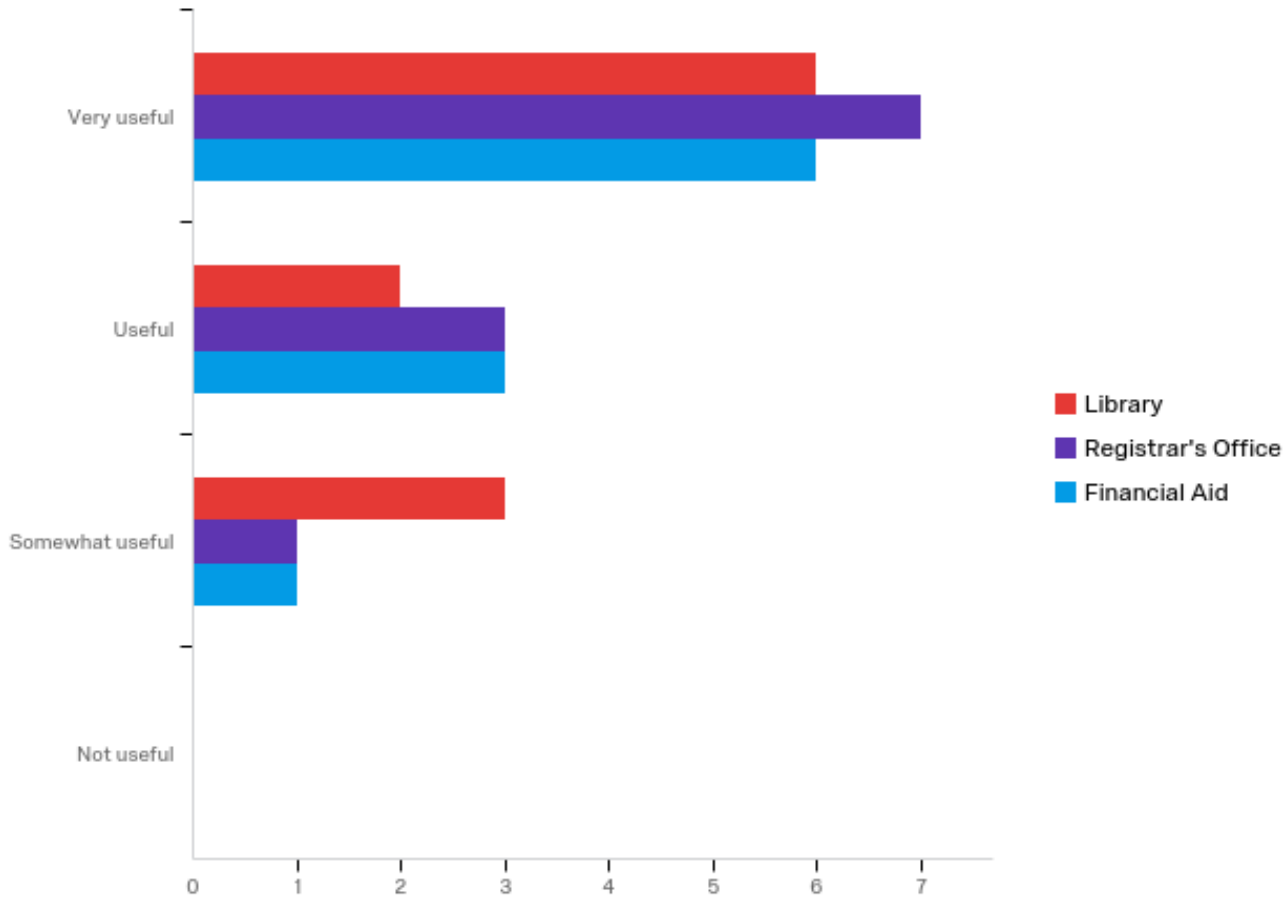
#	Question	Very useful		Useful		Somewhat useful		Not useful		Total
1	Library	54.55%	6	18.18%	2	27.27%	3	0.00%	0	11
2	Registrar's Office	63.64%	7	27.27%	3	9.09%	1	0.00%	0	11
3	Financial Aid	60.00%	6	30.00%	3	10.00%	1	0.00%	0	10

Q BECO 12 - Do you feel you are now a life long learner since you completed your degree?

Do you feel you are now a life long learner since you completed your degree?
No
Yes
Yes
I plan to pursue my Master's degree
Absolutely!
This program has allowed me the motivation to continue on for a master's degree
Yes
yes
Yes, planning on going for my Master's in PA
Yes, I am looking forward to Master's Degree completion next.

Q BECO 13 - Has your confidence grown in yourself since completing your degree? If so, please explain.

Has your confidence grown in yourself since completing your degree? If so, please explain.

It has. I feel more confident in my oral and written communication.

Yes. I feel I am now more prepared to become a manager

I have a broader knowledge in management.

Education plays a major role in confidence.

I am confident in my learning abilities and skills since doing online classes

Some what, I felt like I have accomplished an important step towards my learning, I feel with this degree I can do things I was not able to do, Such as maintain higher degree or compete to some positions, improve chances of survival of being life long learner in Academic way. I understand we do learn in so many ways however, Academic learning have a distinctive remarks.

The courses have allowed me to grow in my professional development and have more confidence.

To some extent yes. It has help me know that if I get out there and get busy I can be a great sonographer.

yes. It feels good to have finished what I started!

Yes, I had observation on open heart surgeries which omg opened up my perspective in my field even more.

Absolutely.

Q BECO 14 - Do you feel you could contribute to the advancing of the field or your work environment in new ways with all that you have learned in your degree?

Do you feel you could contribute to the advancing of the field or your work environment in new ways with all that you have learned in your degree?

Yes.

Yes is do. My goal is to go into supervision/management and this was very helpful for my future.

Yes.

I actually love doing research and OIT has helped me become a better researcher and writer.

Certainly! I have more of a solid knowledge, in many aspects of my job that I have learned through this courses, despite my clinical background some courses added so much to me such as echo lab management, healthcare management, education and leadership

Yes

yes

Yes, I already am working in research.

Yes

I do and I am employing the knowledge gained already in my work environment.

Q BECO 15 - Has your degree given you greater opportunity in your career?   If yes, please explain.

Has your degree given you greater opportunity in your career?   If yes, please explain.

It has. I will no attempt to apply to a PA school.

Yes because by obtaining my degree I now am able to apply for a supervisor position at the facility I currently work at.

The classes I took have helped me in my current field of study

Not sure yet. I guess once I maintain my degree and added to my Resume, I can tell

I have already been promoted to the manager of my echo lab.

Yes, promotions and an ability to apply for a master degree.

I think the facility you work for aids in growing in this field.

Yes, I will be teaching echocardiography courses and providing more administrative support at work.

Q BECO 16 - What have been the three best things about your major?   These might be experiences, particular courses or professors, general characteristics or features of the program-- anything at all that was important to you.

I was able to see a different aspect of the work I currently do. I was able to observe other modalities as they pertain to scans and procedures I do.

I appreciate the care of the majority of the professors. Dr. Isaacson and Dr. Lancaster were excellent teachers and she provided encouragement and critiques throughout my time at OIT.

beside all major related courses my favorites were echo lab management, healthcare management, education and leadership, theses are courses the two year programs do not offer and they are very helpful for thinking outside of the box. I have also enjoyed discussion boards and talking to colleges, been able to realize our diversity and share our common interest was amazing aspect of this course. And one thing I will miss when I graduate in few weeks is the database access.

The management courses have been helpful and I am thankful they were required in the echo program. The echo courses have allowed me to grow in my knowledge in Echocardiography. Dr. Issacson has been a great resource in all of my courses and giving guidance. She is encouraging and gives effect feedback.

1. Gaining knowledge about diseases of the heart, and diseases that can cause heart issues. 2. having classes that go into the other sonography fields such as vascular and abdominal.

I really like the required observation project, that really is an eye opener. I hated reading everybody's post, yet I learned so much from their own observation.

1. flexibility 2. caring and supportive professors 3. course materials are relevant to the field of practice

Q BECO 17 - What is your overall rating of the education you received at Oregon Tech?
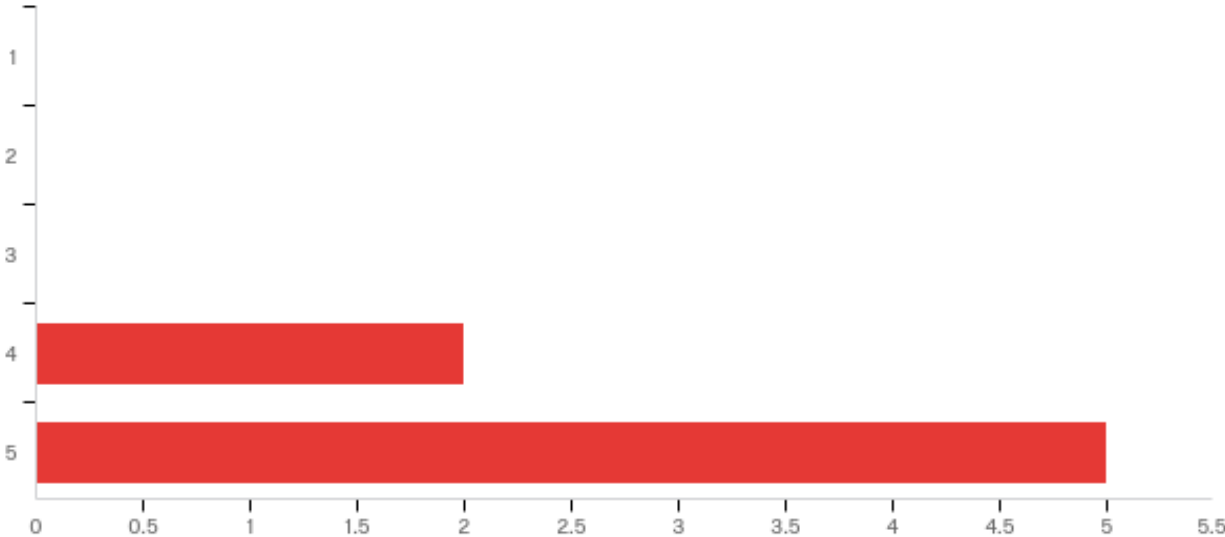
#	Answer	%	Count
1	1	0.00%	0
2	2	0.00%	0
3	3	0.00%	0
4	4	28.57%	2
5	5	71.43%	5
	Total	100%	7

Q BECO 18 - Do you have any other comments about your time at Oregon Tech?

Do you have any other comments about your time at Oregon Tech?

I wish the graduation procedure would have been explained more thoroughly

I admired many aspects of the school and the program.And I am proud to be able to graduate in few weeks. I would suggest some areas of improvement may be to echo degree completion. i could not make connection between between the Trigonometry course this program require and my entire learning towards the degree. I cant see how it will help me on my career, I do believe statistics course would have been more relevant , applicable and easy to do for many adults coming back to school after few years. I strongly recommend the change of this course not because of devaluing it as a math course but because, it may be challenging while irrelevant and definitely statistics following Algebra will relate more to our degree, and real life application for echocardiographers such as scheduling, research, surveys and so on. Thank you so much for this opportunity!

This is has been one of the greatest experiences I have had and thankful for the opportunity to attend OIT.

I think the Trigonometry course is not necessary in finishing a bachelor degree of echocardiography. It has nothing to do with the course, an upper division physics or statistics course would be a much better choice of a math course because you use that ALL the time in echocardiography.

I did learn some stuff that I never knew I can use for another purpose in the exam.

I really enjoyed my time at OIT. I will be considering OIT in the future for graduate programs.

Q Experiential Learning 1 - Oregon Tech recognizes that learning occurs in a variety of venues and experiences.   Please check all of the following learning experiences you participated in while enrolled as a student at Oregon Tech.
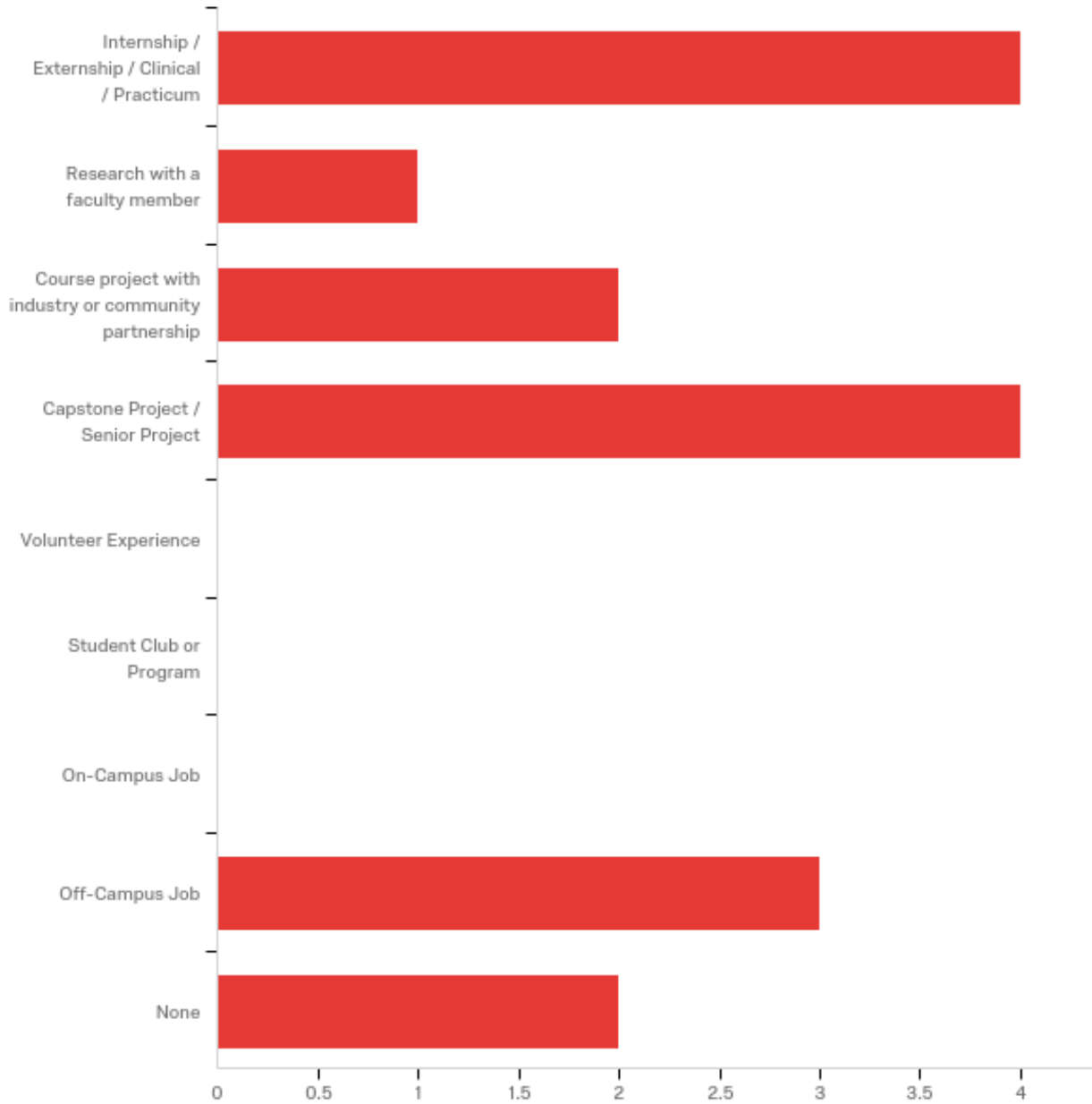
#	Answer	%	Count
1	Internship / Externship / Clinical / Practicum	25.00%	4
13	Research with a faculty member	6.25%	1
12	Course project with industry or community partnership	12.50%	2
10	Capstone Project / Senior Project	25.00%	4
8	Volunteer Experience	0.00%	0
4	Student Club or Program	0.00%	0
5	On-Campus Job	0.00%	0
6	Off-Campus Job	18.75%	3

20		None	12.50%	2
		Total	100%	16

Q Experiential Learning 2 - Please tell us more about your Internship / Externship / Clinical / Practicum.

Name of company or organization:	Brief description of experience:	What term(s) did you participate:	Duration in weeks:	Average hours per week:
Tawam Hospital	For my echo externship courses	two terms	20 weeks	37 hours
UAB	Did externship at UAB	Fall 2017 and Spring 2018	12	10
Fairfield Medical Center	Interventional procedures, surgery, and non-invasive imaging/testing	Spring and Summer 2018	18 weeks	10 hours/week

Q Experiential Learning 3 - Please tell us more about your research with a faculty member.

Name of faculty member:	Brief description of experience:	What term(s) did you participate:	Duration in weeks:	Average hours per week:
Shirley Johnson	It was a writing project, I have learned so much from Dr. Shirley and definitely my research and project management skills has come a long way. she is amazingly supportive and encouraging	Winter, 2019	10	8-10

Q Experiential Learning 4 - Please tell us more about your course project with industry or community partnership.

Name of company or organization:	Brief description of experience:	What term(s) did you participate:	Duration in weeks:	Average hours per week:
community, work	intercultural communication course project	Summer, 2018	it is all the time I have spent here being overseas and working at a multi cultural companies	couple of events with different culture interactions

Q Experiential Learning 5 - Please tell us more about your capstone project or senior project.

Name of company or organization:	Brief description of experience:	What term(s) did you participate:	Duration in weeks:	Average hours per week:
Duke university hospital and Utah university hospital	Interviews about my LVAD Senior project	Spring, 2019	the course duration is 10 weeks of extensive research but my interaction with these instituation is limited to interviews of experts	I invest about 15-20 hours per week on my research in general
Fairfield Medical Center	Cardiac research project	Fall 2018	10 weeks	10 hours/week

Q Experiential Learning 6 - Please tell us more about your volunteer experience.
Name of company or organization:

Q Experiential Learning 7 - Please select all of the student clubs and/or programs you participated in while at Oregon Tech:

#	Answer	%	Count
1	ALPS - Philosophy / Poetry Club	0.00%	0
2	Amateur Radio Club	0.00%	0
3	ASCE (Civil Engineers)	0.00%	0
4	ASME - Mechanical Engineers	0.00%	0
38	Association of Energy Engineers	0.00%	0
6	AUVSI - Assoc for Unmanned Vehicle Systems Int'l	0.00%	0
7	Baja SAE	0.00%	0
8	Barbell Club	0.00%	0
9	Campus Beautification Club	0.00%	0
10	Christian Fellowship Club	0.00%	0
11	Circle K Club	0.00%	0
12	Disc Golf Club	0.00%	0
13	DMS Club	0.00%	0
65	Drama Club	0.00%	0
14	Echo Club	0.00%	0
15	Engineers without Borders (EWB)	0.00%	0
16	Epsilon Eta Sigma (Engineering Honor Society)	0.00%	0
17	Formula SAE	0.00%	0
18	Gaming Community	0.00%	0
19	Geomatics Club	0.00%	0
20	Hawaii Club: Alanui o Pueo	0.00%	0
21	Health Science Club	0.00%	0
22	Honors Organization of Oregon Tech (HOOT)	0.00%	0
23	IEEE Electrical and Electronics Engineering	0.00%	0
24	International Club	0.00%	0
25	Lambda Pi Eta	0.00%	0
26	Mathematics Club	0.00%	0
27	Mars Reach	0.00%	0
28	Martial Arts	0.00%	0

29		Newman Club	0.00%	0
30		Nuclear Medicine	0.00%	0
31		Nursing Students without Boards	0.00%	0
66		Oregon Tech Gaming Society	0.00%	0
32		Performing Musicians - Pep Band	0.00%	0
33		Phi Beta Lambda - Business Club	0.00%	0
34		Phi Delta Theta	0.00%	0
35		Psy Chi (Psychology Honor Society)	0.00%	0
36		Psychology Club	0.00%	0
37		Radiologic Science	0.00%	0
39		Respiratory Club	0.00%	0
40		Robotics Club	0.00%	0
41		Rowing Club	0.00%	0
42		SADHA at CCC - Chemeketa	0.00%	0
43		SADHA Dental Hygiene	0.00%	0
44		Social Activities Club	0.00%	0
45		Social Dancing Club	0.00%	0
46		Students for the Child	0.00%	0
47		Students in Communication	0.00%	0
48		SWE Society of Women Engineers	0.00%	0
49		Tennis Club	0.00%	0
50		Trading Card Game Club	0.00%	0
51		Vascular Club	0.00%	0
52		Student Government (ASOIT	0.00%	0
53		Campus Activities (CAB)	0.00%	0
54		Diversity Center (DC)	0.00%	0
55		International Student Services (ISS)	0.00%	0
56		KTEC-FM Radio Station	0.00%	0
57		New Student Orientation (NSO)	0.00%	0
58		Outdoor Program (OP)	0.00%	0
59		Oregon Tech Broadcasting (OTB)	0.00%	0
60		Residence Hall Association (RHA)	0.00%	0
5		Soccer Club	0.00%	0

61		Student Veterans Program (SVP)	0.00%	0
62		The Edge Newspaper	0.00%	0
63		Women's Resource Center (WRC)	0.00%	0
64		If other, please specify:	0.00%	0
67		Native American Student Union (NASU)	0.00%	0
68		Saudi Student Association	0.00%	0
69		The Latino Club	0.00%	0
70		Oregon Tech Spirit Squad	0.00%	0
		Total	100%	0

If other, please specify:
If other, please specify: - Text

Q Experiential Learning 8 - Please tell us more about your on-campus job.
Name of supervisor:

Q Experiential Learning 9 - Please tell us more about your off-campus job.

Name of supervisor:	Name of company or organization:	Brief description of experience:	What term(s) did you participate:	Duration in weeks:	Average hours per week:
Dianna Maynard	UC Davis Medical Center	Full time echocardiographer	Benefited employee	4 days a week	40+

STUDENT DEMOGRAPHIC: Term

#	Answer	%	Count
1	201702	16.67%	2
2	201801	16.67%	2
3	201803	41.67%	5
4	201804	25.00%	3
	Total	100%	12

STUDENT DEMOGRAPHIC: Term

STUDENT DEMOGRAPHIC: Student Campus

#	Answer	%	Count
1	Online Learning	100.00%	12
	Total	100%	12

STUDENT DEMOGRAPHIC: Student Campus

STUDENT DEMOGRAPHIC: Advisor Name

#	Answer	%	Count
1	Isaacson, Janette	100.00%	12
	Total	100%	12

STUDENT DEMOGRAPHIC: Advisor Name

STUDENT DEMOGRAPHIC: Major 1 Code

#	Answer	%	Count
1	BECO	100.00%	12
	Total	100%	12

STUDENT DEMOGRAPHIC: Major 1 Code

STUDENT DEMOGRAPHIC: Major 1 Description

#	Answer	%	Count
1	Echocardiography	100.00%	12
	Total	100%	12

STUDENT DEMOGRAPHIC: Major 2 Code

Answer	%	Count
Total	100%	0

STUDENT DEMOGRAPHIC: Major 2 Code

STUDENT DEMOGRAPHIC: Major 2 Description

Answer	%	Count
Total	100%	0

STUDENT DEMOGRAPHIC: Concurrent Major 1

Answer	%	Count
Total	100%	0

STUDENT DEMOGRAPHIC: Emphasis 1 Description

Answer	%	Count
Total	100%	0

STUDENT DEMOGRAPHIC: Minor 1 Description

Answer	%	Count
Total	100%	0

STUDENT DEMOGRAPHIC: Minor 1 Department

Answer	%	Count
Total	100%	0

STUDENT DEMOGRAPHIC: Minor 2 Description

Answer	%	Count
Total	100%	0

STUDENT DEMOGRAPHIC: Oregon Tech Athlete

#	Answer	%	Count
1	N	100.00%	12
	Total	100%	12

STUDENT DEMOGRAPHIC: Oregon Tech Athlete

STUDENT DEMOGRAPHIC: Veteran Self Report

#	Answer	%	Count
1	N	100.00%	12
	Total	100%	12

STUDENT DEMOGRAPHIC: Gender

#	Answer	%	Count
1	F	91.67%	11
2	M	8.33%	1
	Total	100%	12

STUDENT DEMOGRAPHIC: Gender

STUDENT DEMOGRAPHIC: 1st OIT Math Course

#	Answer	%	Count
1	201202 MATH 100 F	14.29%	1
2	201503 MATH 111 A	14.29%	1
3	201602 MATH 100 A	14.29%	1
4	201703 MATH 112 F	14.29%	1
5	201704 MATH 070 A	14.29%	1
6	201802 MATH 111 A	14.29%	1
7	201802 MATH 112	14.29%	1
	Total	100%	7

STUDENT DEMOGRAPHIC: 1st OIT Math Course

STUDENT DEMOGRAPHIC: 1st OIT WRI Course

#	Answer	%	Count
1	201302 WRI 122 F	11.11%	1
2	201503 WRI 227 A	11.11%	1
3	201602 WRI 122 B	11.11%	1
4	201702 WRI 122 A	11.11%	1
5	201702 WRI 122 B	11.11%	1
6	201703 WRI 227 A	11.11%	1
7	201704 WRI 122 A	11.11%	1
8	201704 WRI 122 B	11.11%	1
9	201704 WRI 227 A	11.11%	1
	Total	100%	9

STUDENT DEMOGRAPHIC: 1st OIT WRI Course

STUDENT DEMOGRAPHIC: Ethnicity

#	Answer	%	Count
1	Hispanic or Latino	16.67%	2
2	Multiple Races	8.33%	1
3	White	75.00%	9
	Total	100%	12

STUDENT DEMOGRAPHIC: Ethnicity

STUDENT DEMOGRAPHIC: Age

#	Answer	%	Count
1	26	8.33%	1
2	29	8.33%	1
3	32	8.33%	1
4	33	8.33%	1
5	38	8.33%	1
6	39	8.33%	1
7	41	16.67%	2
8	43	16.67%	2
9	47	8.33%	1
10	52	8.33%	1
	Total	100%	12

STUDENT DEMOGRAPHIC: City (Geographic)

#	Answer	%	Count
1	Chicago	8.33%	1
2	Colorado Springs	8.33%	1
3	Dallas	8.33%	1
4	Elk Grove	8.33%	1
5	Elon	8.33%	1
6	Houston	8.33%	1
7	Joshua	8.33%	1
8	Kearney	8.33%	1
9	Lufkin	8.33%	1
10	Mount Prospect	8.33%	1
11	Rushville	8.33%	1
12	Spring Hill	8.33%	1
	Total	100%	12

STUDENT DEMOGRAPHIC: State (Geographic)

#	Answer	%	Count
1	TX	25.00%	3
9	TN	8.33%	1
8	OH	8.33%	1
7	NE	8.33%	1
6	NC	8.33%	1
2	IL	16.67%	2
5	GA	8.33%	1
4	CO	8.33%	1
3	CA	8.33%	1
	Total	100%	12

STUDENT DEMOGRAPHIC: Zip (Geographic)

#	Answer	%	Count
1	27244	8.33%	1
2	30157	8.33%	1
3	37174	8.33%	1
4	43150	8.33%	1
5	60056	8.33%	1
6	60641	8.33%	1
7	68847	8.33%	1
8	75904	8.33%	1
9	76058	8.33%	1
10	77030	8.33%	1
11	80923	8.33%	1
12	95758	8.33%	1
	Total	100%	12

STUDENT DEMOGRAPHIC: Nation Desc (Geographic)

#	Answer	%	Count
1	United States of America	100.00%	12
	Total	100%	12

STUDENT DEMOGRAPHIC: Nation Desc (Geographic)

STUDENT DEMOGRAPHIC: High School

#		Answer	%	Count
1		053436 - Bear Creek Hs	11.11%	1
2		112435 - Mceachern High School	11.11%	1
3		130414 - Logos School	11.11%	1
4		140097 - John Hersey Hs	11.11%	1
5		140700 - Schurz Hs	11.11%	1
6		360815 - Bloom Carroll High S	11.11%	1
7		420890 - Mitchell High School	11.11%	1
8		443700 - Joshua Hs	11.11%	1
9		444220 - Livingston High Scho	11.11%	1
		Total	100%	9

STUDENT DEMOGRAPHIC: High School State

#	Answer	%	Count
1	IL	22.22%	2
2	TX	22.22%	2
3	CA	11.11%	1
4	GA	11.11%	1
5	ID	11.11%	1
6	OH	11.11%	1
7	SD	11.11%	1
	Total	100%	9

STUDENT DEMOGRAPHIC: High School State

STUDENT DEMOGRAPHIC: High School County

Answer	%	Count
Total	100%	0

STUDENT DEMOGRAPHIC: High School GPA

#	Answer	%	Count
1	2.963	16.67%	1
2	2.988	16.67%	1
3	3.339	16.67%	1
4	3.59	16.67%	1
5	3.6	16.67%	1
6	3.762	16.67%	1
	Total	100%	6

STUDENT DEMOGRAPHIC: High School GPA

STUDENT DEMOGRAPHIC: SATC_SAT Composite

Answer	%	Count
Total	100%	0

STUDENT DEMOGRAPHIC: Prior College

#	Answer	%	Count
1	001167 - City College San Francisco	8.33%	1
2	001655 - City College Chicago Wright	8.33%	1
3	003793 - Spokane CC	8.33%	1
4	003961 - Harper C	8.33%	1
5	004453 - El Centro College	8.33%	1
6	005257 - Georgia Northwestern Tech C	8.33%	1
7	005317 - Forsyth Technical CC	8.33%	1
8	006661 - Angelina College	8.33%	1
9	007764 - Southeast Technical Institute	8.33%	1
10	007871 - Wallace State CC Hanceville	8.33%	1
11	008896 - Pikes Peak CC	8.33%	1
12	011046 - Central Ohio Tech College	8.33%	1
	Total	100%	12

STUDENT DEMOGRAPHIC: Transfer Earned Credit Hours

#	Answer	%	Count
1	141	8.33%	1
2	151	8.33%	1
3	199.5	8.33%	1
4	225	8.33%	1
5	228.75	8.33%	1
6	240	8.33%	1
7	243	8.33%	1
8	256.5	8.33%	1
9	285.5	8.33%	1
10	288.75	8.33%	1
11	290.5	8.33%	1
12	306	8.33%	1
	Total	100%	12

STUDENT DEMOGRAPHIC: Transfer Earned Credit Hours

STUDENT DEMOGRAPHIC: Transfer GPA

#	Answer	%	Count
1	3.45	16.67%	2
2	2.92	8.33%	1
3	3.02	8.33%	1
4	3.1	8.33%	1
5	3.15	8.33%	1
6	3.28	8.33%	1
7	3.3	8.33%	1
8	3.31	8.33%	1
9	3.65	8.33%	1
10	3.76	8.33%	1
11	3.88	8.33%	1
	Total	100%	12

STUDENT DEMOGRAPHIC: Transfer GPA

STUDENT DEMOGRAPHIC: Oregon Tech Earned Credit Hours

#	Answer	%	Count
8	74	8.33%	1
7	72	8.33%	1
6	61	8.33%	1
5	58	8.33%	1
2	57	16.67%	2
1	50	33.33%	4
4	44	8.33%	1
3	41	8.33%	1
	Total	100%	12

STUDENT DEMOGRAPHIC: Oregon Tech GPA

#	Answer	%	Count
3	3.94	16.67%	2
2	3.85	16.67%	2
8	3.76	8.33%	1
7	3.72	8.33%	1
6	3.56	8.33%	1
1	3.55	16.67%	2
5	2.8	8.33%	1
4	4	16.67%	2
	Total	100%	12

STUDENT DEMOGRAPHIC: Oregon Tech GPA

STUDENT DEMOGRAPHIC: Transfer GPA

#	Answer	%	Count
1	2.66	8.33%	1
2	2.86	8.33%	1
3	2.89	8.33%	1
4	2.91	8.33%	1
5	2.96	8.33%	1
6	3.07	8.33%	1
7	3.18	8.33%	1
8	3.25	8.33%	1
9	3.32	8.33%	1
10	3.63	8.33%	1
11	3.73	8.33%	1
12	3.85	8.33%	1
	Total	100%	12

STUDENT DEMOGRAPHIC: Transfer GPA

STUDENT DEMOGRAPHIC: Oregon Tech GPA by Term

#	Answer	%	Count
1	4	100.00%	2
	Total	100%	2

STUDENT DEMOGRAPHIC: Oregon Tech GPA by Term