

## Section 1 – Program Mission and Educational Objectives

### Program Mission:

The Bachelor of Science program in Biological-Health Sciences (BHS) prepares undergraduate students for professional and graduate schools in the medical sciences (medicine, dentistry, pharmacy, veterinary sciences, physical therapy, physician assistant, etc.).

### Mission Alignment:

The BHS program has the following Educational Objectives:

- Provide an integrated foundation of knowledge in biological disciplines that includes morphological, cellular, molecular, physiological, developmental, and evolutionary principles.
- Train students to utilize the scientific method and develop skills in analysis, evaluation, and critical thinking. (as well as communication, team building, and professionalism – may be added following more discussion).
- Prepare students for entrance into graduate schools and professional health schools, including preparation for national admissions examinations such as the Graduate Record Examination (GRE), Medical College Admission Test (MCAT), Dental School Admissions Test (DAT), and similar examinations, or qualify them for entry level positions in biology and health-related occupations.

## Section 2 – Program Student Learning Outcomes

Upon completion of the program, students will have demonstrated the following abilities:

### Program Student Learning Outcomes

- PSLO 1 - Demonstrate scientific knowledge and understanding. a. Demonstrate foundational knowledge in the natural sciences (e.g., terminology, organization, classifications, appropriate use of units, methodologies, and fundamental principles). b. Apply scientific principles to biological and medical examples/contexts.
- PSLO 2 - Be proficient in scientific reasoning and critical thinking. a. Analyze data to determine its relationship to principles, and evaluate the data for errors. b. Analyze and evaluate content in biology.
- PSLO 3 - Be able to effectively find and use resources from the literature.
- PSLO 4 - Demonstrate effective oral, written and visual communication.
- PSLO 5 - Demonstrate mathematical knowledge and skills in the biological sciences.

PSLOs are reviewed annually to maintain relevance in a rapidly evolving job market. Our agency partners advise on essential skills and desired qualifications to ensure that our graduates are successful on the job.

### Section 3 – Curriculum Map

Institutional Student Learning Outcomes (ISLOs) are aligned with our Program Student Learning Outcomes (PSLOs) to make sure both of them are following a 3-year assessment cycle.

- ISLO 1 – Communication
- ISLO 2 – Inquiry & Analysis
- ISLO 3 – Ethical Reasoning
- ISLO 4 – Quantitative Literacy
- ISLO 5 - Teamwork
- ISLO 6 – Diverse Perspectives

University	ISLO 1,3,6	ISLO 2,5	ISLO 3,6	ISLO 1,5	ISLO 2,4
Program	PSLO 1	PSLO 2	PSLO 3	PSLO 4	PSLO 5
<b>FRESHMAN YEAR</b>					
<a href="#">BIO 109 - Intro to Medical Sciences Credit Hours: 2</a>			F	F	
<a href="#">BIO 211 - Principles of Biology Credit Hours: 4</a>	F	F			
<a href="#">BIO 212 - Principles of Biology Credit Hours: 4</a>	F	F			
<a href="#">BIO 213 - Principles of Biology Credit Hours: 4</a>	F	F			
<b>SOPHOMORE YEAR</b>					
<a href="#">BIO 209 - Current Research Tpc Med Sci I Credit Hours: 1</a>		F	F	F	
<a href="#">BIO 345 - Medical Microbiology Credit Hours: 5</a>	P	P			
<a href="#">CHE 221 - General Chemistry I Credit Hours: 5</a>	F	F			F
<a href="#">CHE 222 - General Chemistry II Credit Hours: 5</a>	F	F			F
<a href="#">CHE 223 - General Chemistry III Credit Hours: 5</a>	F	F			F
<b>JUNIOR YEAR</b>					
<a href="#">BIO 331 - Human Anatomy/Physiology I Credit Hours: 5</a>	P	P			
<a href="#">BIO 332 - Human Anatomy/Physiology II Credit Hours: 5</a>	P	P			
<a href="#">BIO 333 - Human Anatomy/Physiology III Credit Hours: 5</a>	P	P			
<a href="#">CHE 331 - Organic Chemistry I Credit Hours: 4</a>	P	P			P
<a href="#">CHE 332 - Organic Chemistry II Credit Hours: 4</a>	P	P			P
<a href="#">CHE 333 - Organic Chemistry III Credit Hours: 4</a>	P	P	P	P	P
<a href="#">PHY 221 - General Physics w/Calculus Credit Hours: 4 d</a>	F	P			P
<a href="#">PHY 222 - General Physics w/Calculus Credit Hours: 4 d</a>	F	P			P
<a href="#">PHY 223 - General Physics w/Calculus Credit Hours: 4 d</a>	F	P			P
<b>SENIOR YEAR</b>					
<a href="#">BIO 346 - Pathophysiology I Credit Hours: 3</a>	C	C			
<a href="#">BIO 409 - Crnt Rsch Tpcs in Med Sci II Credit Hours: 2</a>		C	C	C	

<a href="#">CHE 450 - Biochemistry I Credit Hours: 4</a>	C	C			C
<a href="#">CHE 451 - Biochemistry II Credit Hours: 4</a>	C	C			C
<b>Health Biology Electives (lower-division):</b>					
<a href="#">BIO 200 - Medical Terminology Credit Hours: 2</a>	F	F			
<a href="#">BIO 205 - Nutrition Credit Hours: 3</a>	F	F	P	P	
<a href="#">BIO 216 - Intro to Veterinary Medicine Credit Hours: 4</a>	F	F			
<a href="#">BIO 226 - Intro to Wildlife Rehab Credit Hours: 3</a>	F	F			
<b>Health Biology Electives (upper-division):</b>					
<a href="#">BIO 326 - Parasitology Credit Hours: 4</a>	P	P			
<a href="#">BIO 341 - Medical Genetics Credit Hours: 3</a>	P	P	P	P	
<a href="#">BIO 342 - Cell Biology Credit Hours: 4</a>	P	P			
<a href="#">BIO 347 - Pathophysiology II Credit Hours: 3</a>	P	P			
<a href="#">BIO 352 - Developmental Biology Credit Hours: 4</a>	P	P			
<a href="#">BIO 357 - Intro to Neuroscience Credit Hours: 3</a>	P	P	P	P	
<a href="#">BIO 426 - Evolutionary Biology Credit Hours: 3</a>	P	P			
<a href="#">BIO 435 - Exercise Physiology Credit Hours: 3</a>	P	P			
<a href="#">BIO 436 - Immunology Credit Hours: 4</a>	P	P			
<a href="#">BIO 461 - Human Cadaver Dissection Credit Hours: 1</a>	C	C			
<a href="#">BIO 462 - Human Cadaver Dissection Credit Hours: 1</a>	C	C			
<a href="#">BIO 495 - Research Project in Biology Credit Hours: Varies (1-4)</a>		C	C	C	C
<a href="#">CHE 360 - Clinical Pharmacology/Hlth Prf Credit Hours: 3</a>	P	P			
<a href="#">CHE 452 - Biochemistry III Credit Hours: 4</a>	C	C			C
<a href="#">CHE 495 - Research Project in Chemistry Credit Hours: Varies (1-4)</a>		C	C	C	C
<a href="#">STAT 414 - Stat Methods in Epidemiology Credit Hours: 4</a>	P	P			

## Section 4 – Assessment Cycle

The assessment cycle was revised this year to better align program specific learning outcome assessment with institutional learning outcome assessment. This content should remain relatively static from year to year.

ISLO	PSLO	2021-2022	2022-2023	2023-2024
Communication	PSLO 4	BIO 409 - Crnt Rsch Tpcs in Med Sci II - C		
Ethics	PSLO 3	BIO 109 - Intro to Medical Sciences - F		
Teamwork	PSLO 2	PHY 221- General Physics w/Calculus - P		
Diversity	PSLO 3, 4		BIO 109 - Intro to Medical Sciences - F BIO 409 - Crnt Rsch Tpcs in Med Sci II - C	
Inquiry and Analysis	PSLO 1, 2			CHE451 - Biochemistry II - C

				PHY223 - General Physics w/Calculus - P
Quantitative Literacy	PSLO 5			CHM221 – General Chemistry - F
				PHY221 - General Physics w/Calculus - P

## Section 5 – Assessment Data Collection Processes

In 2021-22 data was collected on three of six ISLOs and four of six PSLOs:

- ISLO 1 – Communication- Oregon Tech students will communicate effectively orally and in writing.
- ISLO 3 – Ethical Reasoning - Oregon Tech students will make and defend reasonable ethical judgments.
- ISLO 5 – Teamwork - Oregon Tech students will collaborate effectively in teams or groups.
- PSLO 2 - Be proficient in scientific reasoning and critical thinking. a. Analyze data to determine its relationship to principles, and evaluate the data for errors. b. Analyze and evaluate content in biology.
- PSLO 3 - Be able to effectively find and use resources from the literature.
- PSLO 4 - Demonstrate effective oral, written and visual communication.

### Performance Target:

The overall standard of success established by BES faculty members was a minimum of 80% of students assessed would score 75% or higher on the chosen artifact.

### Activity:

#### Assignments for teamwork:

2 Group exams (design, report, and oral presentation): Direct assessment data were collected in PHY221 by letting students form small groups (3-5 individuals/group), then design, report and orally present 2 worksheets/lab handouts (for midterm and final), which connect physics topics to their own background (major background, or personal interests).

#### Assignments for communication:

Oral presentation and the written research paper: Direct assessment data were collected in BIO409 by letting students participate in oral presentation and research paper writing. The assessment was conducted by combining scores for both assignments. and looked for how many students achieved a combined score of 80% as the benchmark.

### Assignment for Ethical Reasoning

Case studies questions: Direct assessment data were collected in BIO109 by letting students choose one of the 2 Cases (A or B) and respond to a series of questions provided. Student response is a minimum of 500 words, though it can of course be more if necessary, in order to answer the questions provided.

### **Sample:**

- Communication: BIO 409 - 13 students (1 section)
- Ethical reasoning: BIO 109 - 45 students (2 sections)
- Teamwork: PHY221 – 61 students (2 sections)

### **Reliability:**

The instructor of record for teach course was responsible for assessing the artifacts for the class. At the end of the term, each instructor recorded their data in the Course Learning Outcome worksheets. 3 different level courses taught by 3 different faculty members within the Bio-health Science program was utilized for assessment to both fairly distribute the workload associated with assessment and to provide a representative sample of instruction.

## **Section 6 – Assessment Data**

### **Program Enrollment:**

Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021
148	161	164	169	148

Enrollment within the Bio-health Science program has remained relatively stable over the last five years. Unsurprisingly, we saw a dip in enrollment during the height of the COVID 19 pandemic.

### **1st Year Retention Rates**

2016-17	2017-18	2018-19	2019-20	2020-21
79%	72%	81%	75%	62%

Our overall retention rate is higher or in par with the Oregon Tech target of 75%. Although fall below the university target last year at the height of the pandemic, our first-year retention rate has been relatively stable since 2018, speaking to the great efforts that our department has devoted in training our program students and connecting them to Oregon Tech as well as to our local community. Enrollment and retention continue to be of a concern for the BHS program and will be further addressed in our action plans.

## ISLO and PSLO data:

Performance Criteria	Assessment Methods	Performance Target	Results	Met?
ISLO1-Communication & PSLO4	Oral presentation + written research paper	80% of students scoring 75% or higher for related assignment	92% - Klamath Falls, BIO 409, 13	Yes
ISLO3-Ethics & PSLO3	Case study questions	80% of students scoring 75% or higher for related assignment	91% -Klamath Falls, BIO 109, 45	Yes
ISLO2-Teamwork & PSLO2	Design, report, and oral presentation	80% of students scoring 75% or higher for related assignment	97% - Klamath Falls, PHY 221, 61	Yes
BBHS Graduation Rate	University Dashboard	6-year rate >50%	40%	More data needed
BBHS Retention	University Dashboard	1-year rate >75%	62%	Covid had a significant impact on retention in BBHS
DFWI	University Dashboard	All program <12%	4%	Yes

## Equity Gaps:

No equity gaps were identified in the courses chosen for the 2021-22 assessment process mostly due to insufficient data. For equity gap study in the future, we plan to combine the data from the last several years to identify the patterns.

## History of Results:

Under the leadership of a new program director and newly hired department chair, BBHS faculty have discussed how to better align our current PSLOs with current requirement of professional schools. The assessment process has also changed significantly over this time with the introduction of Course Learning Outcome worksheets for reporting assessment data and more clearly defined performance targets. We do not have much historical data at this point and look forward to filling in this table over time.

## Section 7 – Data-driven Action Plans:

Reflecting on the assessment data, the one area where Bio-health Sciences did not meet the performance target was retention. The BBHS first year retention rate was 62% with a target of 75%. The low DFWI rates within BES courses indicate that our retention issues are not associated with program specific curriculum. This means that students are either facing attrition in their general educational requirements or are leaving Oregon Tech for reasons other than failing their classes. The 6-year graduation rate is ~40 % for BBHS students, which is also

strongly associated with the first-year retention rate. The low graduate rate can also partially be attributed to the amount students who joined the BHS program but had never intended to stay with the program in the first place. Therefore, our action plans for the next year will be focusing on recruitment (see the preliminary plan in **Appendix A**), stabilizing BBHS enrollment and improving first-year retention.

### **Action Plans for 2022-2023**

Goal 1: Stabilize enrollment and first-year retention in the program.

- Meet with admissions/marketing to discuss how to better advertise the BBHS degree.
- Update the BHS website.
- Visit local schools (around both campuses) to advocate science and Oregon Tech.
- Further improve the quality of the courses offered in the program by implementing evidence-based and more student-centered pedagogies.
- Write/revise/ the BBHS retention plan (preliminary version included as **Appendix B**).

Goal 2: Further improve ISLE and PSLO assessments.

- Further update our PSLOs to better align them with the updated ISLOs.
- Better align the assessment cycles between ISLOs and our PSLOs.
- Improve the reliability of the collected data by using multiple courses/instructors for each learning objective.

We have made progress on many of these items. For instance, our new BHS website is current under update and will include faculty profiles and research interests. The introductory physics courses, for example, have reformed their formats by combining lecture and lab sections into 2-hour blocks of “studio sections” and incorporating group-project based assessment and other research-based pedagogies to train student scientific and teamwork abilities. These efforts also made our courses better aligned with ISLOs, and significantly improved the DFWI rate in those courses (student self-reflections on their teamworking skills are attached as **Appendix C**).

Many courses in the program, especially those historically challenging ones, have employed **supplemental instructors** to facilitate student learning in and outside of classrooms. In 2022-23 we need to hire several program faculty members as our searches largely failed in 2021-22. Our new hires are expected to expand our capacity to conduct undergraduate research with our students and offer elective courses within the BBHS program.

### **Section 8 – Closing the Loop: Reflection on previous work**

- We will possibly develop standardized questionnaires to give to students annually as metrics to measure their learning outcome in each PSLO. This more standardized approach will be easier to implement, increase the faculty involvement with data collection, and make our collected data comparable from year to year. As we gather more

PSLO data in the coming years, we will be better able to monitor student learning over time and close the loop on our action plans.

- As a team, we have identified a variety of retention and enrollment goals for the coming 2022-23 academic year and will meet soon to discuss the results from this assessment report and to strategically plan a better closing the loop process. Our faculty remain committed to provide the best learning outcome to all students. We have had a memorable year creating collaborative learning experiences for our students. We are in the process to develop a master's degree program in Biomedical Science, and look forward to improved student success in the near future.



## Appendix A– Recruitment Plan

### Recruitment

Need data here on past numbers and pattern

### Goal

Natural science will have a total -- new students each year (-- environmental sciences, – Biology-Health Sciences, Chemistry minor or FTE)

### Short term

1<sup>st</sup> Faculty visit science classes in high schools to do a presentation but also discuss college, degree, opportunities. Maybe two or three visits a year.

2<sup>nd</sup> When admissions bring students through on tours have faculty meet with them. Example schedule

### Just an example!!

	Monday	Tuesday	Wednesday	Thursday	Friday
10:00 environmental science	Nate	etc	etc	etc	etc
10:00 Biology-health science	Travis	etc	etc	etc	etc
1:00 environmental science	Christy	etc	etc	etc	etc
1:00 Biology-health science	Rose	etc	etc	etc	etc

When admission comes by the faculty will meet with recruits. It will not be often but it is important when student come to visit to meet with them

### Long term

1<sup>st</sup> Faculty visit science classes in middle schools to do a presentation but also discuss college, degree, opportunities. Maybe two or three visit a year

2<sup>nd</sup> Create poster about a scientific concept and place a bit of information about department and faculty projects in a corner. We could do this for various subjects.

3<sup>rd</sup> Science days at Oregon Tech. Bring students to campus to visit faculty doing presentations

3<sup>rd</sup> Build stem opportunities with our undergraduates and local schools (science fair, etc.)

4<sup>th</sup> Social media presence

Evaluation = enrollment and major numbers

## Appendix B – Retention Plan

### Retention Plan 2022 | October 6, 2022

#### Natural Sciences

Dr. Nate A. Bickford, Chair

#### INTRODUCTION & OVERVIEW

Student retention is one of the most important metrics in higher education. In the Natural Sciences we are happy with the direction of our retention, but it can be better. We plan to make a four-pronged plan to increase our retention. Our goal is to maintain a 77% retention rate in both BHS and ENV.

#### ACTON ITEMS

The first part of the retention plan is to start an early warning system. At the end of week 2 in each quarter the faculty will use software provided by the university to indicate students who are looking like they may be heading in the wrong direction. The software will send an email to advisor, the retention team, their coaches, etc. that indicate issues with the student's work in the class.

Second, once the email is sent via the system, it will then be on the advisors and associated retention team to help the student get back on track. This will require communication. The communication from faculty and retention team should go both ways, to each other as well as to the student. Our faculty will support the retention team to the best of our ability and time.

The third part of the retention plan is to develop strong tutoring plan.

- Connect students to the tutoring center in the library and make sure they are aware of the center. In our introductory classes we can create opportunities to interact with tutoring center.
- Make sure classes of concern have Student Instructors (SI's) to create time outside the classroom for specialized tutoring
- Dedicated tutoring center in DOW (may move to Boivin in the future). This will be staffed by student(s) from 10 am to 7 pm each weekday, closing earlier on Fridays

As a measure of success, we will keep track of the students who use these opportunities. This will allow us to measure success for individual students, but also of the program. Students will also self-report via surveys about the impact of the tutoring services.

The fourth part of the retention plan is to build a stronger relationship with the professional advisors and natural science faculty. We will ask the advisors to attend some of our meeting, especially related to curriculum. This will ensure that our early students are getting the help they need as well as ensuring the correct class sequence.

The fifth part of this retention plan is to continue to grow hands on interactive learning, both inside and outside the class. Active engagement teaching and mentoring are very powerful tools to keep student engaged while also creating very effective teaching opportunities. This is a strong retention tool that we can implement more fully within the program.

## Appendix C– Teamwork student self-reflection

Paper View

I've learned how to work with a team more effective than I probably have in any other class. Along with working with a team, I've learned to work with team members out side of my bio health major bringing together different ideas and ways of thinking. It has helped expand my thinking on everything. When driving or going anywhere I now consciously define everything with physics.

Paper View

Besides learning about physics, this class has taught me about how to work well with a team. Doing the group projects really shows who knows how to carry their weight for a project and who doesn't. I've learned that it is best to delegate work to other members and that way they feel some sort of responsibility for their own grade. Getting the project well laid out and prepared ahead of time also helps a lot because people tend to always have personal conflicts that interfere with the group plans

Paper View

I have learned really good teamwork skills from this class! Doing the projects was a great idea to make us put our minds together and work as a team. This is very important for our field because we will always be working together with patients, but sometimes alone. I think the worksheet design was the best part of this class and gave us the opportunity to really apply our imaging ideas to the physics class even more. I can not believe the term is already over. Thank you so much for the knowledge you have provided us!

Paper View

This class reminded me of the importance of working in groups. It impacted my way of learning and I was able to see and understand different perspectives from my peers. Working in groups made subjects more interesting because my peers and I were able to look deeper into the topics and bring out more information. Working in a group allowed me to have another resource available, to reach out for help when I need it. This class has provided me multiple ways of learning that can help me in the future.

Paper View

One of the major contributions to attending your physics classes are the interactions between fellow classmates. Physics gave me a better incentive to meet new students in my program and even though I am pretty shy at times I'm glad I got the opportunities to make more friends. This definitely helped me feel more comfortable in my smaller classes and labs as well. I appreciate all the props that were used in class to demonstrate abstract subjects. A very efficient way to grasp difficult topics.

Paper View

A larger portion of this classed was based on collaboration and working together. This course helped me build skills when it comes to organizing roles in a group, as well as coordinating meetups when group members have different and busy schedules. It was beneficial because I will be working with others in my career and we each will have an important role as well as busy schedules while at work. Another important skill learned was presentation skills virtually. It's difficult to connect with an audience when you are not in the same room, so learning how to adjust to this new norm of professional video calls was also very beneficial. I learned how asking questions may help keep the others in the call invested in what's being said. This is an important skill to have in the times we are in now with social distancing and unexpected times that may call for virtual meetings.

Paper View

Not only did I learn physics in this class, but I learned other valuable tools. The main thing I learned in this class, besides physics, is how to work in a group. This was the first class in college that I have had group work in. I tend to do most of the work in group projects and always want to lead. However, I only did my parts and let other members of my group lead. This is a good skill to have as I will have to work with colleagues in the health science field in the future. I also really enjoyed discussing in class with fellow classmates. It is a good skill to be able to problem-solve with groups. Overall, I really enjoyed this class and learned a lot!

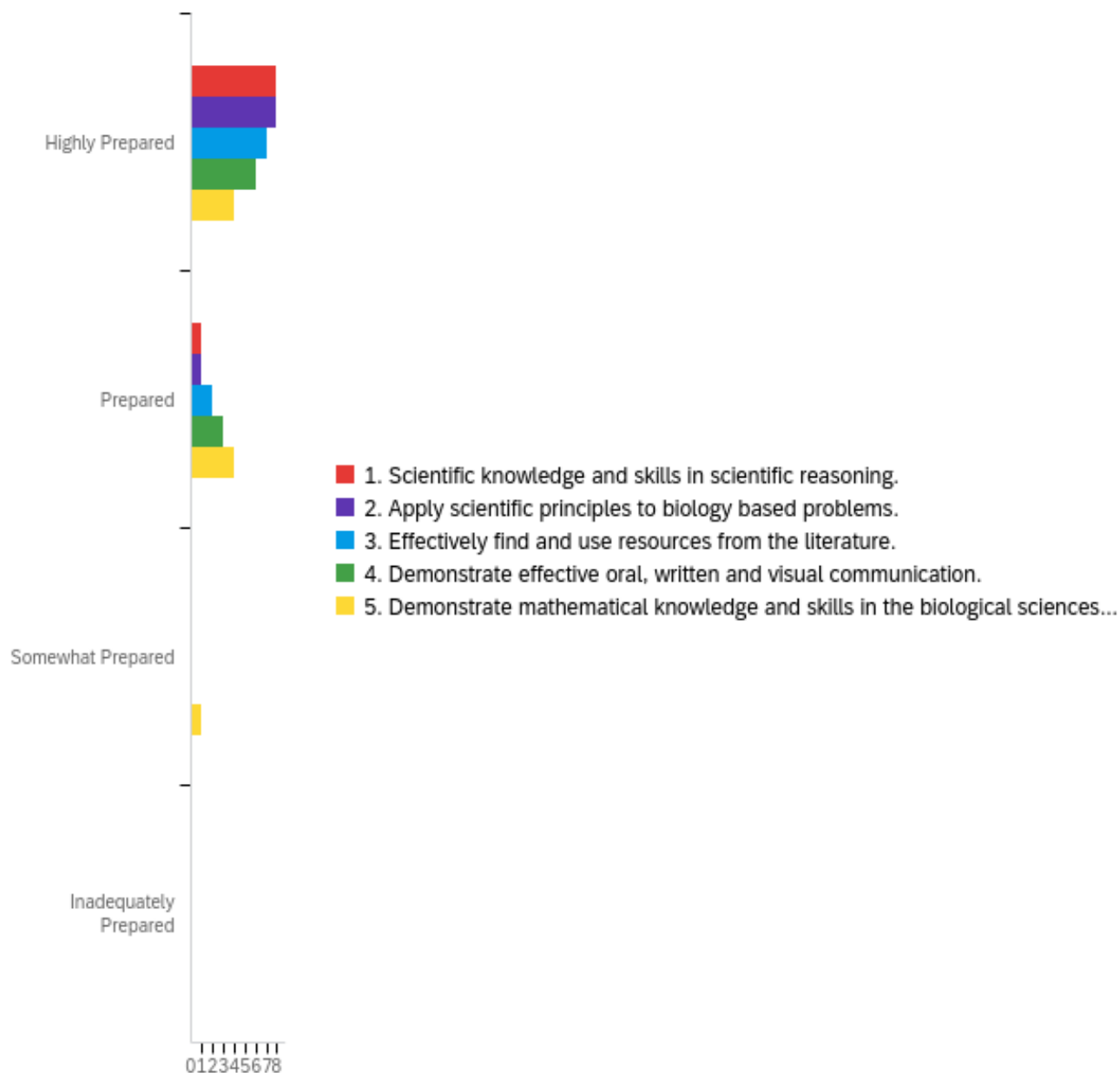
## Appendix D– Exit survey results

### BBHS

(2020-21) Student Exit Survey

October 13th 2022, 5:59 pm PDT

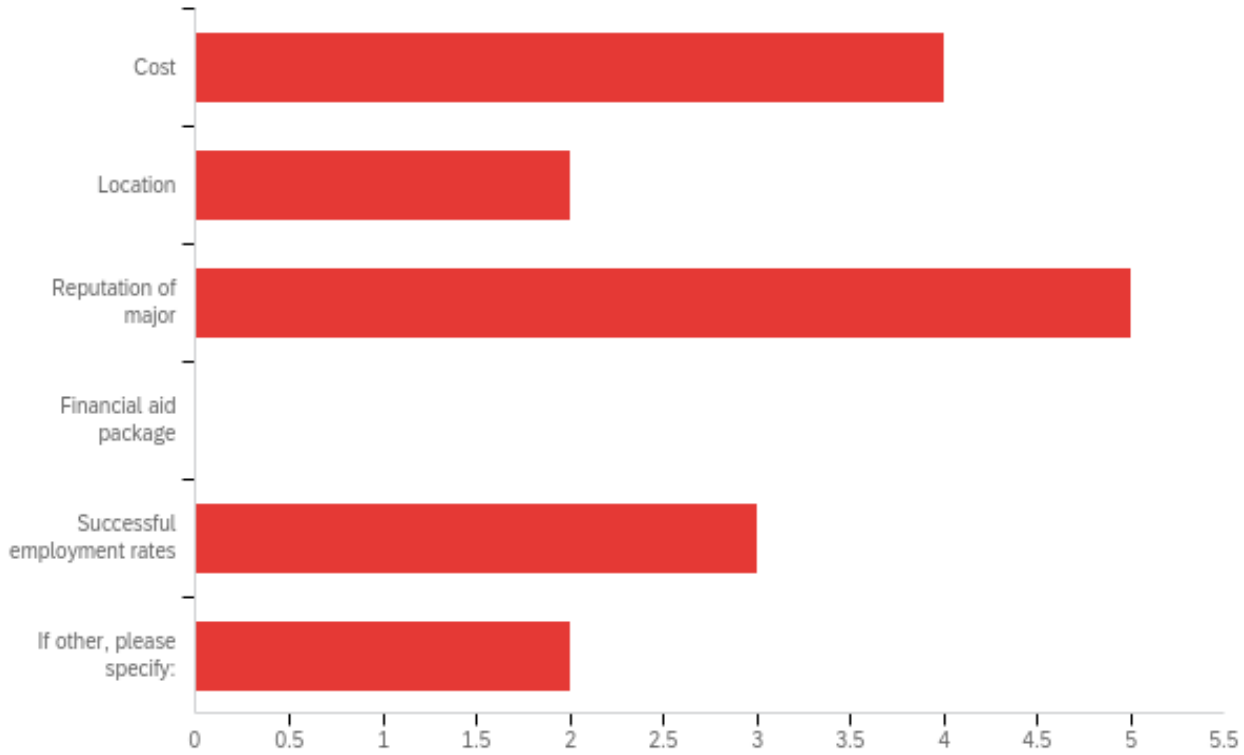
**Q BBHS 1 - Program Student Learning Outcomes for Biology-Health Sciences B.S. Please indicate how well the Biology-Health Sciences program prepared you in the following areas.**



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	1. Scientific knowledge and skills in scientific reasoning.	1.00	2.00	1.11	0.31	0.10	9
2	2. Apply scientific principles to biology based problems.	1.00	2.00	1.11	0.31	0.10	9
3	3. Effectively find and use resources from the literature.	1.00	2.00	1.22	0.42	0.17	9
4	4. Demonstrate effective oral, written and visual communication.	1.00	2.00	1.33	0.47	0.22	9
5	5. Demonstrate mathematical knowledge and skills in the biological sciences.	1.00	3.00	1.67	0.67	0.44	9

#	Question	Highly Prepared	Prepared	Somewhat Prepared	Inadequately Prepared	Total
1	1. Scientific knowledge and skills in scientific reasoning.	88.89% 8	11.11% 1	0.00% 0	0.00% 0	9
2	2. Apply scientific principles to biology based problems.	88.89% 8	11.11% 1	0.00% 0	0.00% 0	9
3	3. Effectively find and use resources from the literature.	77.78% 7	22.22% 2	0.00% 0	0.00% 0	9
4	4. Demonstrate effective oral, written and visual communication.	66.67% 6	33.33% 3	0.00% 0	0.00% 0	9
5	5. Demonstrate mathematical knowledge and skills in the biological sciences.	44.44% 4	44.44% 4	11.11% 1	0.00% 0	9

**Q BBHS 2 - What attracted you to Oregon Tech? Please check all that apply.**



#	Answer	%	Count
1	Cost	25.00%	4
2	Location	12.50%	2
3	Reputation of major	31.25%	5
4	Financial aid package	0.00%	0
5	Successful employment rates	18.75%	3
6	If other, please specify:	12.50%	2
	Total	100%	16

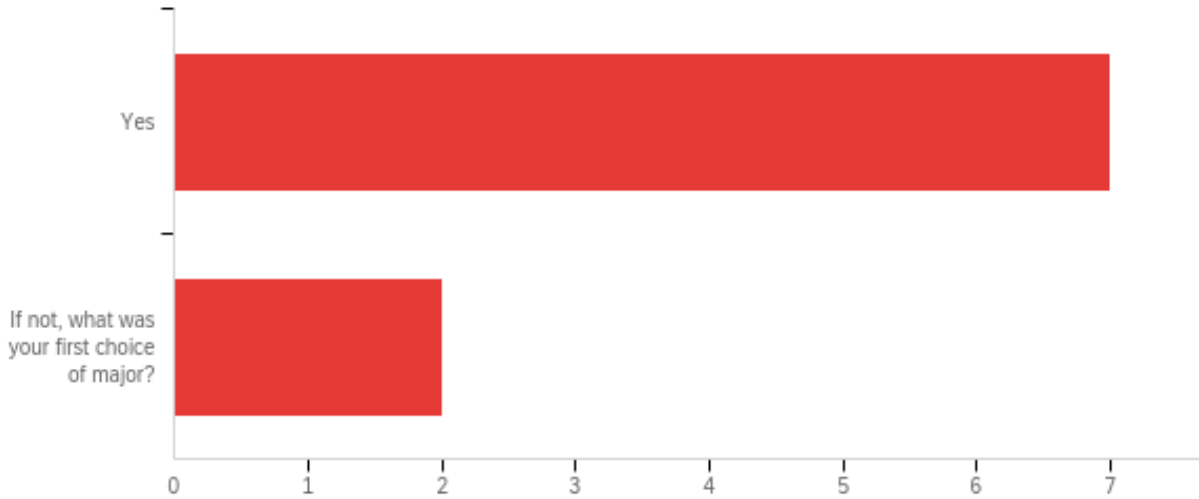
**Q BBHS 2\_6\_TEXT - If other, please specify:**

If other, please specify: - Text

athletics

Athletics

### Q BBHS 3 - Was Biology-Health Sciences your first choice of major?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Was Biology-Health Sciences your first choice of major? - Selected Choice	1.00	2.00	1.22	0.42	0.17	9

#	Answer	%	Count
1	Yes	77.78%	7
2	If not, what was your first choice of major?	22.22%	2
	Total	100%	9

### Q BBHS 3\_2\_TEXT - If not, what was your first choice of major?

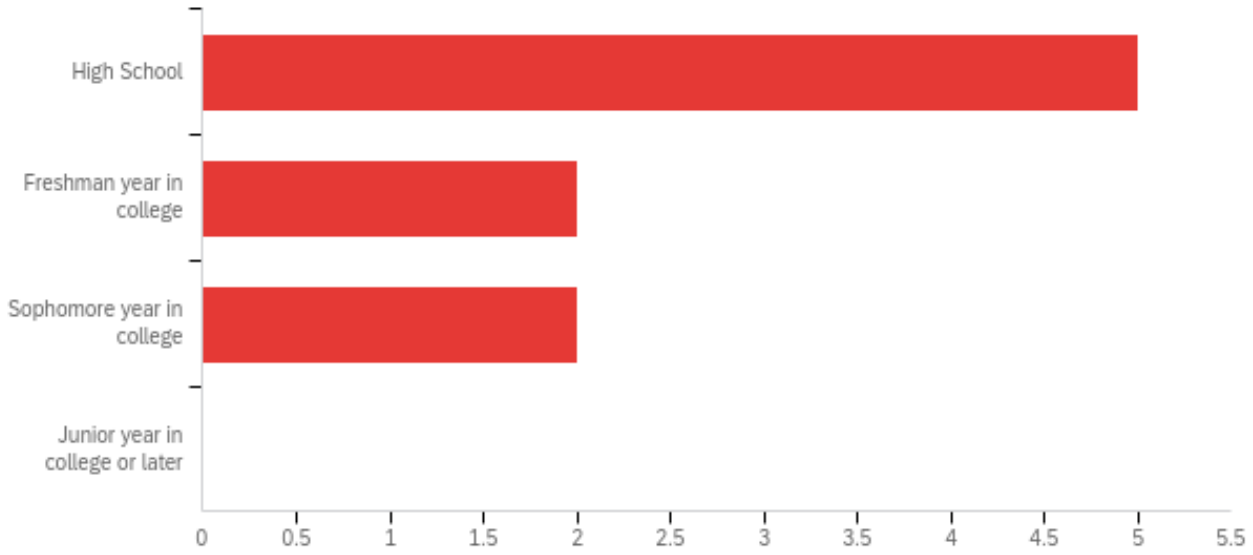
If not, what was your first choice of major? - Text

Medical Laboratory Science

Information Technology. However, I was always interested in the health science realm coming out of high school, so I found my way back.



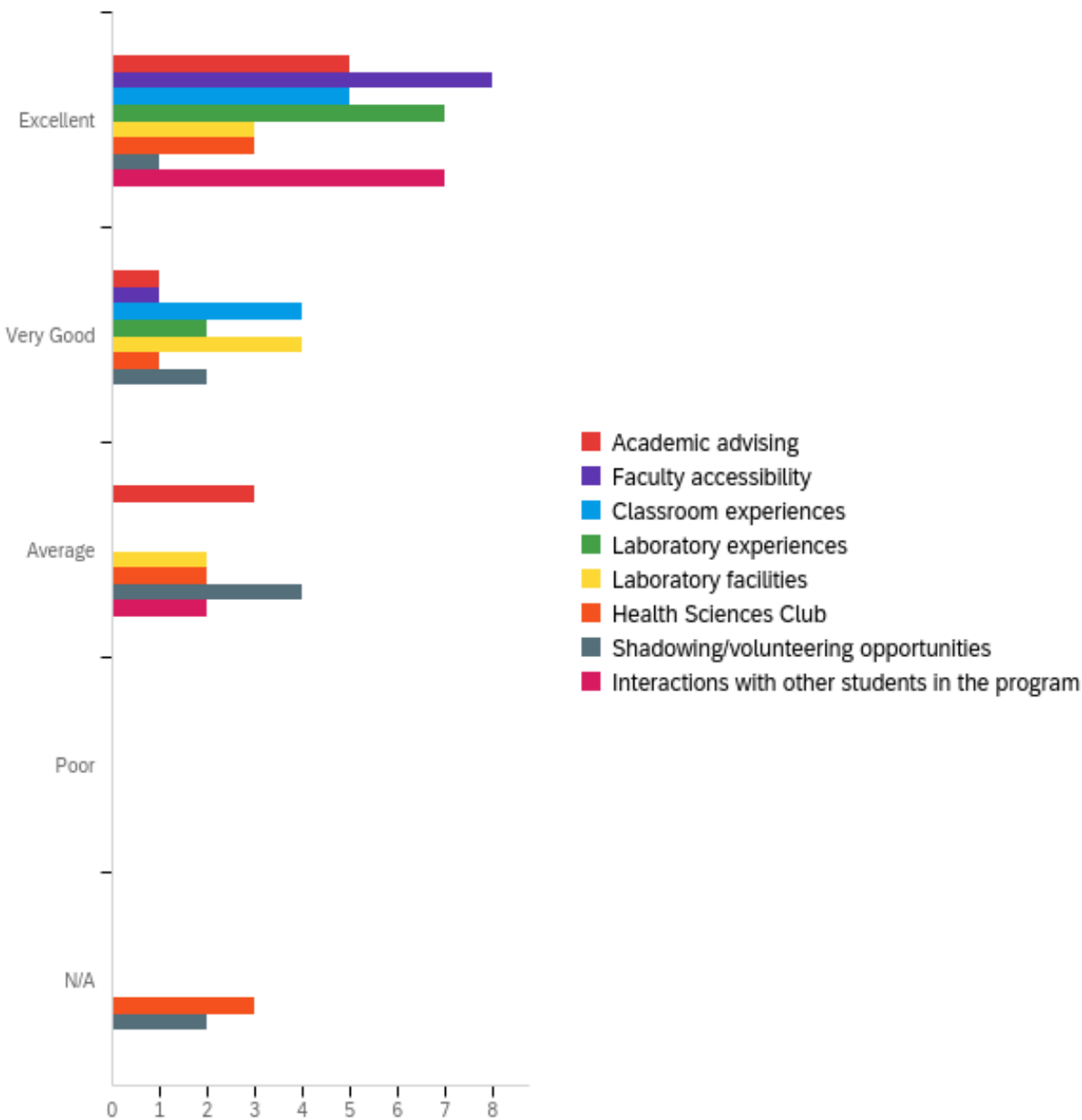
### Q BBHS 4 - At what stage in your studies did you choose your major?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	At what stage in your studies did you choose your major?	1.00	3.00	1.67	0.82	0.67	9

#	Answer	%	Count
1	High School	55.56%	5
2	Freshman year in college	22.22%	2
3	Sophomore year in college	22.22%	2
4	Junior year in college or later	0.00%	0
	Total	100%	9

**Q BBHS 5 - Please provide feedback about the overall quality of the following aspects of the Biology-Health Sciences Program have been to you.**



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Academic advising	1.00	3.00	1.78	0.92	0.84	9
2	Faculty accessibility	1.00	2.00	1.11	0.31	0.10	9
3	Classroom experiences	1.00	2.00	1.44	0.50	0.25	9
4	Laboratory experiences	1.00	2.00	1.22	0.42	0.17	9
5	Laboratory facilities	1.00	3.00	1.89	0.74	0.54	9

6	Health Sciences Club	1.00	41.00	14.89	18.48	341.43	9
7	Shadowing/volunteering opportunities	1.00	41.00	11.00	16.05	257.56	9
8	Interactions with other students in the program	1.00	3.00	1.44	0.83	0.69	9

#	Question	Excellent		Very Good		Average		Poor		N/A		Total
1	Academic advising	55.56%	5	11.11%	1	33.33%	3	0.00%	0	0.00%	0	9
2	Faculty accessibility	88.89%	8	11.11%	1	0.00%	0	0.00%	0	0.00%	0	9
3	Classroom experiences	55.56%	5	44.44%	4	0.00%	0	0.00%	0	0.00%	0	9
4	Laboratory experiences	77.78%	7	22.22%	2	0.00%	0	0.00%	0	0.00%	0	9
5	Laboratory facilities	33.33%	3	44.44%	4	22.22%	2	0.00%	0	0.00%	0	9
6	Health Sciences Club	33.33%	3	11.11%	1	22.22%	2	0.00%	0	33.33%	3	9
7	Shadowing/volunteering opportunities	11.11%	1	22.22%	2	44.44%	4	0.00%	0	22.22%	2	9
8	Interactions with other students in the program	77.78%	7	0.00%	0	22.22%	2	0.00%	0	0.00%	0	9

## Q BBHS 6 - What are one or two specific things we could do to improve the Biology-Health Sciences major?

What are one or two specific things we could do to improve the Biology-Health Sciences major?

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I think Biology-Health Sciences students should be encouraged to take more classes outside of the realm of biology, especially because physics and electrochem ideas greatly help with understanding biological concepts. I also think the advising is really uneven, and a lot of advisors give students a lot of freedom, but in doing so, haven't made sure students stay on track to graduate.

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The workload is overbearing at times. More access to research help for projects and presentations.

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Seek out partnerships with local healthcare providers to provide students shadowing experiences. It is extremely difficult to find shadowing opportunities, as many hospitals/providers do not offer the opportunity if it is not school-affiliated.

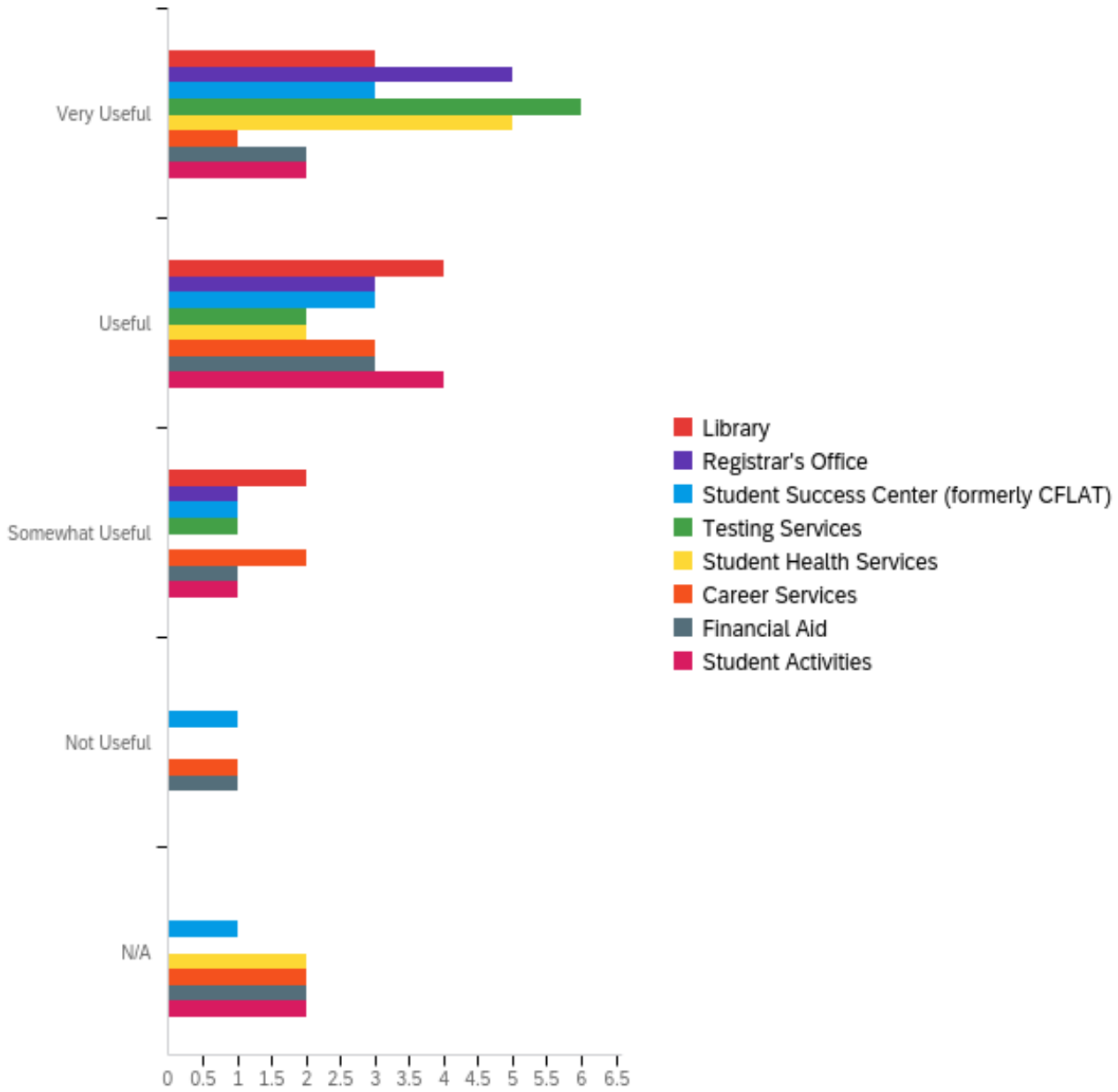
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Include more shadowing opportunities and provide more funding for better labs for the introductory biology courses. (bio 211 and 212)

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More advice and guidance for graduate school students.

**Q BBHS 7 - Please provide feedback about how useful the following Oregon Tech services have been to you.**

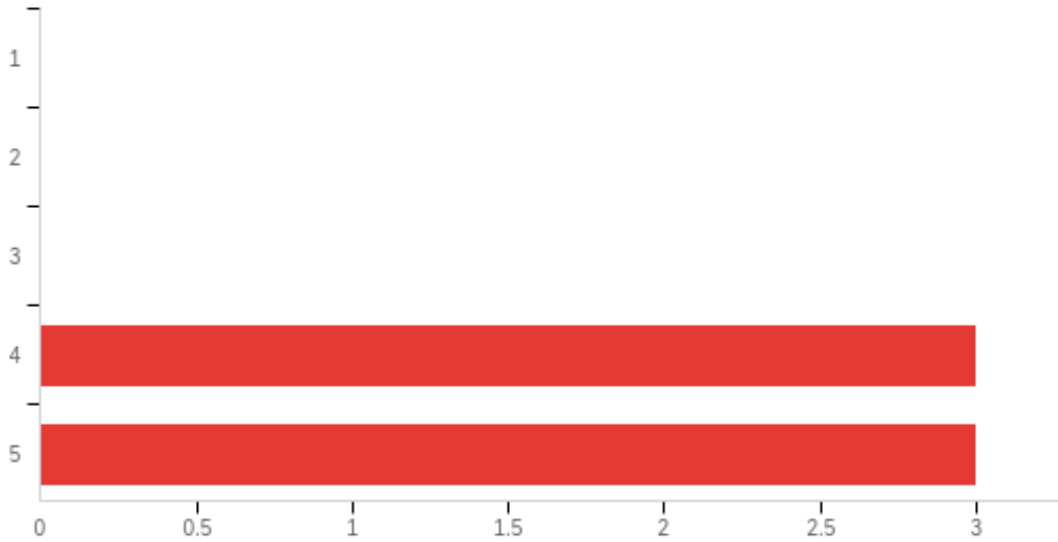


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Library	1.00	3.00	1.89	0.74	0.54	9
2	Registrar's Office	1.00	3.00	1.56	0.68	0.47	9
3	Student Success Center (formerly CFLAT)	1.00	5.00	2.33	1.33	1.78	9
4	Testing Services	1.00	3.00	1.44	0.68	0.47	9
5	Student Health Services	1.00	5.00	2.11	1.59	2.54	9

6	Career Services	1.00	5.00	3.00	1.33	1.78	9
7	Financial Aid	1.00	5.00	2.78	1.47	2.17	9
8	Student Activities	1.00	5.00	2.56	1.42	2.02	9

#	Question	Very Useful		Useful		Somewhat Useful		Not Useful		N/A		Total
1	Library	33.33%	3	44.44%	4	22.22%	2	0.00%	0	0.00%	0	9
2	Registrar's Office	55.56%	5	33.33%	3	11.11%	1	0.00%	0	0.00%	0	9
3	Student Success Center (formerly CFLAT)	33.33%	3	33.33%	3	11.11%	1	11.11%	1	11.11%	1	9
4	Testing Services	66.67%	6	22.22%	2	11.11%	1	0.00%	0	0.00%	0	9
5	Student Health Services	55.56%	5	22.22%	2	0.00%	0	0.00%	0	22.22%	2	9
6	Career Services	11.11%	1	33.33%	3	22.22%	2	11.11%	1	22.22%	2	9
7	Financial Aid	22.22%	2	33.33%	3	11.11%	1	11.11%	1	22.22%	2	9
8	Student Activities	22.22%	2	44.44%	4	11.11%	1	0.00%	0	22.22%	2	9

**Q BBHS 8 - What is your overall rating of the quality of education you received?**



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What is your overall rating of the quality of education you received?	4.00	5.00	4.50	0.50	0.25	6

#	Answer	%	Count
1	1	0.00%	0
2	2	0.00%	0
3	3	0.00%	0
4	4	50.00%	3
5	5	50.00%	3
	Total	100%	6

## Q BBHS 9 - Do you have any other comments about your time at Oregon Tech?

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

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I wish there was less of a disconnect between admin and faculty, because if it weren't for the faculty, I wouldn't have stayed at Oregon Tech. I love the faculty and the education I've received, but don't love much of the rest of the school. Priorities are not in the right place, and while I've had a good time and am proud of my education, I'm not proud of the school or the reputation.

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The small class sizes, one-on-one time with professors outside of class, and a focus on education first is what makes Oregon Tech so great, and I hope to see all of these aspects prioritized in the future.

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It's been great.

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It was very challenging (which it should be), but also very rewarding. Great professors who care about the quality that they provide. I've had an enjoyable time, and look to the future with great pride about my experience here at Oregon Tech.