GEOMATICS DEPARTMENT
GIS OPTION
Oregon Institute of Technology
NWCCU Assessment Report
2022-2023 Academic Year

1. Program Introduction

1.1 Program History

Geomatics education has been offered virtually since the inception of the Oregon Institute of Technology, with an associate degree in Surveying initiated in 1951. The program was accredited by the Engineer's Council on Professional Development (ECPD) in 1953. ECPD is now recognized as ABET. A baccalaureate Surveying Technology degree was offered in 1966 and accredited by TAC-ABET in 1970. The program was one of the first two Bachelor of Science surveying programs in the nation to receive RAC-ABET accreditation in 1984. The geomatics program has enjoyed 67 years of continuous accreditation under ABET or its predecessor, ECPD. Oregon Tech can be proud of having the oldest BS Geomatics program in the nation. The program's title was officially changed from Surveying to Geomatics in 2001, reflecting a global trend recognizing the broadening of the profession and the impact of a revolution in advanced technology. As of 2007, the department now offers the BS Surveying option (former BS Geomatics degree) and the BS GIS option on the Klamath Falls campus and online.

1.2 Enrollment Trends (Geomatics - GIS Option Students)

Table 1.1. – Geomatics - GIS Option enrollment trends

Fall Terms	Year (2018-19)	Year (2019-20)	Year (2002-21)	Year (2021-22)	Year (2022-23)
Full-time Students	9	7	6	11	13
GIS Minors Awarded	10	9	6	5	5

Reported values represent enrollment during the fourth week of the fall quarter as recorded by Oregon Tech Institutional Research.

1.3 Recent Number of Graduates

A summary of the number of geomatics degrees (GIS option) awarded for the last 5 years is shown in Table 1.2.

Table 1.2. – Geomatics – GIS Option degrees awarded.

Fall Terms	Year (2018-19)	Year (2019-2020)	Year (2020-21)	Year (2021-22)	Year (2022-23)
Students	-	1	1	1	4

Reported values represent graduations as recorded by Oregon Tech Institutional Research for the Geomatics - GIS Option

1.4 Employment Rates and Salaries

2018 graduates reported a salary range from $42,000 to $64,000 for the initial starting salary. 67% of students indicated that they also received a signing bonus but did not indicate the value of these bonuses.

2. Program Summary

2.1 Geomatics Department Mission, Objectives, and Program Student Learning Outcomes (PSLOs)

On June 19, 2023, the Geomatics Department faculty met and reviewed the department mission, program educational objectives (PEOs) and Program Student Learning Objectives (PSLOs) listed below. Faculty affirmed that the department mission, PEOs, and PSLOs still meet the goals of the program.

2.1.1 Department Mission

The mission of the Geomatics Department is to provide students with fundamental knowledge and skills in the geomatics and GIS disciplines. The Surveying Option prepares students to pass the Fundamentals of Surveying (FS) examination and pursue licensure as a registered Professional Land Surveyor (PLS). The GIS Option prepares students to become certified GIS Professionals. All students learn the professional responsibility of protecting the health, safety and welfare of the public, and become aware of global and cultural issues.

2.1.2 Program Educational Objectives

Program educational objectives describe the expected accomplishments of graduates during the first few years after graduation, usually 3-5 years. These objectives are consistent with the mission of the program and the institution**.**

Graduates of the Oregon Tech Geomatics Options will:

1. Acquire the ability to obtain professional licensure and/or certifications in the geospatial industry.
2. Advance in the geospatial industry during their career by becoming involved in local, state, national, or international professional organizations.
3. Obtain industry positions requiring increased responsibility.
4. Assume responsibility for lifelong learning in professional and personal development.
5. Demonstrate readiness for graduate education and/or advanced technical education.

2.1.3 Program Student Learning Outcomes (PSLO)

(1) An ability to identify, formulate, and solve broadly defined technical or scientific problems by applying knowledge of mathematics and science and/or technical topics to areas relevant to the discipline.
(2) An ability to formulate or design a system, process, procedure, or program to meet desired needs.
(3) An ability to develop and conduct experiments or test hypotheses, analyze, and interpret data and use scientific judgment to draw conclusions.
(4) An ability to communicate effectively with a range of audiences.
(5) An ability to understand ethical and professional responsibilities and the impact of technical and/or scientific solutions in global, economic, environmental, and societal contexts.
(6) An ability to function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty.

Note: The expected learning outcomes for the survey option are based on ABET/ASAC accreditation criteria.

2.2 GIS Option Student Learning Opportunities

Geomatics student professional learning opportunities include:

1. Geomatics Student Club community service activities. Each year, students in the Geomatics Club are encouraged to take on survey/GIS-related projects that benefit the community. These projects provide the students with exposure to real-world projects, negotiation, and fulfillment of a specific scope of work, and the opportunity to work with other disciplines.
2. The National Society of Professional Surveyors (NSPS) (formerly the American Congress of Surveying and Mapping) national student surveying competition. Geomatics students organize each year and begin a fundraising drive to supplement funding provided by professional organizations. In 2020, two Geomatics students won the NSPS Student Project of the Year that involved a surveying/GIS application.
3. Professional Land Surveyors of Oregon (PLSO) annual conference. Students volunteer as runners to assist with conference details, attend technical paper presentations, and staff the OREGON TECH Geomatics department booth.
4. GME 468 Geomatics Practicum. Students are responsible for completing a number of community service projects for city, county, state, and federal agencies.
5. Industry speakers are invited to make presentations at the PLSO Student Chapter meetings.
6. Students are encouraged to participate in international organizations such as the International Federation of Surveyors (FIG).
7. Attendance at and participation in the yearly GIS In Action conference, sponsored by the Urban and Regional Information Systems Association (URISA).
8. The Geomatics Department will hold a map competition to present students' posters and maps. The top three rankers will receive prizes.

3. Summary of Six-Year Assessment Cycle

Table 3 depicts the geomatics survey option's six-year PSLO/ISLO assessment cycle. Table 3 also indicates the PSLO/ISLO, the academic year, and the course where the learning outcome will be assessed.

Table 3. Six-Year Assessment Cycle

PSLO	ISLO	AY 16/17	AY 17/18	AY 18/19	AY 19/20	AY 20/21	AY 21/22	AY 22/23
(1) An ability to identify, formulate, and solve broadly defined technical or scientific problems by applying knowledge of mathematics and science and/or technical topics to areas relevant to the discipline.	6			GME175 GIS306			GME175 GIS306	
(2) An ability to formulate or design a system, process, procedure or program to meet desired needs.	4			GIS306 GME468			GIS205 GME468	
(3) An ability to develop and conduct experiments or test hypotheses, analyze and interpret data and use	2	GME241 GIS316			GME241 GIS316			GME241 GIS316

scientific judgment to draw conclusions.								
(4) An ability to communicate effectively with a range of audiences.	1	GME161 GME468			GME161 GME468			GME161 GME468
(5) An ability to understand ethical and professional responsibilities and the impact of technical and/or scientific solutions in global, economic, environmental, and societal contexts.	3		GME162 GME454/455			GME162 GME454/455		
(6) An ability to function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty.	5		GIS205 GME468			GIS205 GME468		
Additional PSLO Assessments								
Review FS Exam Results		X	X	X	X	X	X	
Review IAC comments		X	X	X	X	X	X	
Alumni Survey		X			X			
Employer Survey			X			X		

4. Summary of Current Academic Year Assessment Activities

Table 4 summarizes the Program Student Learning Outcomes (PSLOs) assessed during the 2022/2023 academic year. The matrix also indicates what course the outcome was assessed in, the quarter of assessment, the instructor who performed the assessment, and the method utilized.

Table 4.1. PSLOs are to be evaluated during the 2022/2023 assessment cycle.

PSLO	Course	Faculty	Term	Method
(3) An ability to develop and conduct experiments or test hypotheses, analyze and interpret data and use scientific judgment to draw conclusions.	GME 241 GIS 316	Walker Lee	Fall 2022 Winter 2023	Examination questions Laboratory exercises
(4) An ability to communicate effectively with a range of audiences.	GME 161 GME 468	Walker Walker	Fall 2022 Spring 2023	Examination questions Laboratory exercises

4.1 Summaries of individual assessment activities

PSLO (3) – "An ability to develop and conduct experiments or test hypotheses, analyze and interpret data and use scientific judgment to draw conclusions." GIS 316 – Geospatial Vector Analysis I.

Performance Criteria:

In GIS, as in most real-world situations, we are faced with numerous constraints, contradictions, and uncertainties. What data do we need? Are they available? If we obtain the data in that form now, will it compromise what we

(or someone else) want to do later? Should we use a different data set? Should we wait until better data are available? Can we afford the data? Are they worth the cost? Therefore, In GIS 316, students are able to develop their own thoughts on various issues and problems by defining relevant indicators and data needs.

The key to the process, however, is to translate the problem to be tackled into a clearly defined set of data needs. This, in itself, requires an understanding not only of GIS (and how the analysis might ultimately be carried out) but also of the system to be studied.

Students needed to choose three issues out of tens: 1) level of provision of social services, 2) access to mass transit, 3) adult employment, 4) access to open space, 5) housing stress, 6) food security, 7) access to freshwater storage, 8) level of law enforcement coverage, 9) emergency response preparedness to seasonal wildfires or mudslides, and 10) emergency response preparedness to a volcano eruption. Students needed to develop valid indicators and determine datasets for each issue.

Students must demonstrate the following:

1. Understanding the problem of concerns
2. Defining relevant indicators
3. Understanding the specific units of measurement and how to standardize data
4. Understanding the level of geographic aggregation required

Students are rated based on the following scores:

1) Poor work or no contribution at all
2) Significantly below average
3) Slightly below average
4) Average work
5) Above-average work

Table 4.2. Rubric

Performance Criteria	Poor (1)	Significantly Below Average (2)	Slightly Below Average (3)	Average (4)	Above Average (5)	Score
Understanding the problem of concerns	No evidence of understanding the problem of concerns	Some, but limited understanding of the problem of concerns shown	Some understanding of the problem of concerns	Clear evidence of understanding the problem of concerns	Suggestions to solve the problems	4
Defining relevant indicators	No evidence of understanding the concept of indicators	Some, but limited understanding of the concept of indicators	Some understanding of the concept of indicators	Clear evidence of understanding of the concept of indicators	Clear definitions of indicators with good examples.	4
Understanding the specific units of measurement and how to standardize data	No evidence of understanding the specific units of measurement and data	Some, but limited understanding of the specific units of measurement and data	Some understanding of the specific units of measurement and data	Clear evidence of understanding of the specific units of measurement and data	Providing the specific units of measurement and data with clear explanations	5

Understanding the level of geographic aggregation required	No evidence of understanding the aggregation concept	Some, but limited understanding of the aggregation concept	Some understanding of the aggregation concept	Clear understanding of the aggregation concept	Explaining the pros and cons of the selected geographic boundary	4

PSLO (3) – "An ability to develop and conduct experiments or test hypotheses, analyze and interpret data and use scientific judgment to draw conclusions." GIS 316 – Geospatial Vector Analysis I. **– Winter 2023**

Departmentally Expected Score:

For PSLO (3), the Geomatics Department expects that 70% of students be expected to score a 4 or a 5 in all categories.

Assessment results:

Table 4.3. Student performance on PSLO (3) in GIS 316, Winter 2023.

Performance Criteria	Assessment Method	Measurement Scale	Minimum Acceptable Performance	Results
Understanding the problem of concerns	Laboratory exercise	1 to 5 scale	70%	100%
Defining relevant indicators	Laboratory exercise	1 to 5 scale	70%	100%
Understanding the specific units of measurement and how to standardize data	Laboratory exercise	1 to 5 scale	70%	100%
Understanding the level of geographic aggregation required	Laboratory exercise	1 to 5 scale	70%	100%

Number of students assessed = 13

Actions to be taken

As the scores in all categories exceeded the departmentally established minimum of 70% for PLSO (3).

5. Evidence of Student Learning

5.1 Summary of Department Discussions on Assessment Activities

September 21, 2023 – Geomatics Department Faculty Meeting (Convocation)

The department faculty met and discussed the following items with respect to assessment:

- No changes were deemed necessary for the department's mission statement, Program Learning Objectives (PLSOs), or Student Learning Objectives.
- Changes made to the PLSOs during the 2018/19 academic year to align with the new ABET 1-7 student outcomes were retained so that the six-year cycle would be in sync with the new PSLOs.
- Geomatics faculty are very happy with the 100% pass rates on the NCEES FS exam in recent years. Faculty will continue to incorporate discussions of FS exam topics into relevant courses and support students in forming study groups to prepare for the exam. Faculty will also encourage students to wait until the spring quarter of their senior year to ensure they have had coursework on all of the topics covered on the FS exam.

5.2 Summary of Faculty Decisions on Program Improvements

The following is an area identified during this assessment cycle that needs additional monitoring.

- While students generally meet all the departmentally required minimums, the scores in communication are generally lower than desired and opportunities for improvement will be discuses. "Closing the Loop" – Changes Resulting from Assessment

The following is a summary of areas identified during the last assessment cycle as areas that need additional monitoring or improvement:

Senior Exit Survey – data from the Senior Exit Survey for 2023 are not available.

Casual conversations during the year indicate that student progress toward the program and student learning objectives were adequate to excellent for the courses under assessment for the 2022-2023 academic year. Additionally, various assignments might be recommended for GIS 316.

6. Appendices

Geomatics – GIS Option
Appendix A – Senior Exit Survey Results
2022-23

Note: The Senior Exit Survey is administered by the Department of Online Learning and has not yet been updated to the current ANSAC-ABET 1-6 Student Criteria. This oversight will be corrected.

BGMG

(2022-23) Student Exit Survey

September 12th 2023, 11:17 am PDT

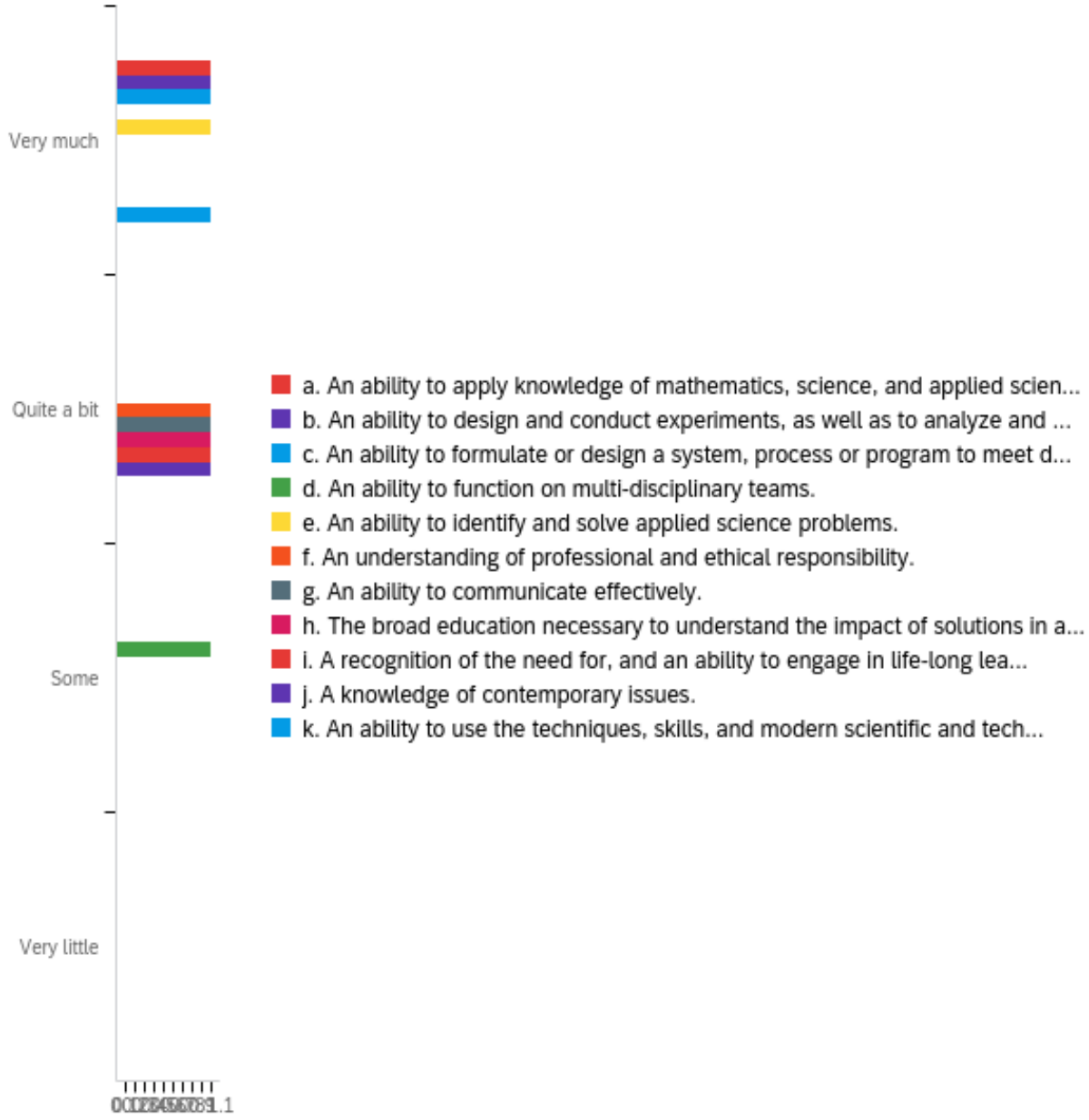
Q BGMG 1 - Program Student Learning Outcomes for Geomatics B.S. Geographic Information Systems Option Please rate your proficiency in the following areas.

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	a. An ability to apply knowledge of mathematics, science, and applied sciences.	1.00	1.00	1.00	0.00	0.00	1
2	b. An ability to design and conduct experiments, as well as to analyze and interpret data.	1.00	1.00	1.00	0.00	0.00	1
3	c. An ability to formulate or design a system, process or program to meet desired needs.	1.00	1.00	1.00	0.00	0.00	1
4	d. An ability to function on multi-disciplinary teams.	2.00	2.00	2.00	0.00	0.00	1
5	e. An ability to identify and solve applied science problems.	1.00	1.00	1.00	0.00	0.00	1

6	f. An understanding of professional and ethical responsibility.	1.00	1.00	1.00	0.00	0.00	1
7	g. An ability to communicate effectively.	2.00	2.00	2.00	0.00	0.00	1
8	h. The broad education necessary to understand the impact of solutions in a global and societal context.	2.00	2.00	2.00	0.00	0.00	1
9	i. A recognition of the need for, and an ability to engage in life-long learning.	2.00	2.00	2.00	0.00	0.00	1
10	j. A knowledge of contemporary issues.	2.00	2.00	2.00	0.00	0.00	1
11	k. An ability to use the techniques, skills, and modern scientific and technical tools necessary for professional practice.	1.00	1.00	1.00	0.00	0.00	1

#	Question	High proficiency		Proficiency		Some proficiency		No proficiency		Total
1	a. An ability to apply knowledge of mathematics, science, and applied sciences.	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1
2	b. An ability to design and conduct experiments, as well as to analyze and interpret data.	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1
3	c. An ability to formulate or design a system, process or program to meet desired needs.	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1
4	d. An ability to function on multi-disciplinary teams.	0.00%	0	100.00%	1	0.00%	0	0.00%	0	1
5	e. An ability to identify and solve applied science problems.	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1
6	f. An understanding of professional and ethical responsibility.	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1
7	g. An ability to communicate effectively.	0.00%	0	100.00%	1	0.00%	0	0.00%	0	1
8	h. The broad education necessary to understand the impact of solutions in a global and societal context.	0.00%	0	100.00%	1	0.00%	0	0.00%	0	1
9	i. A recognition of the need for, and an ability to engage in life-long learning.	0.00%	0	100.00%	1	0.00%	0	0.00%	0	1
10	j. A knowledge of contemporary issues.	0.00%	0	100.00%	1	0.00%	0	0.00%	0	1
11	k. An ability to use the techniques, skills, and modern scientific and technical tools necessary for professional practice.	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1

Q BGMG 2 - Program Student Learning Outcomes - Geomatics B.S. Geographic Information Systems Option How much has your experience at Oregon Tech contributed to your knowledge, skills, and personal development in these areas?

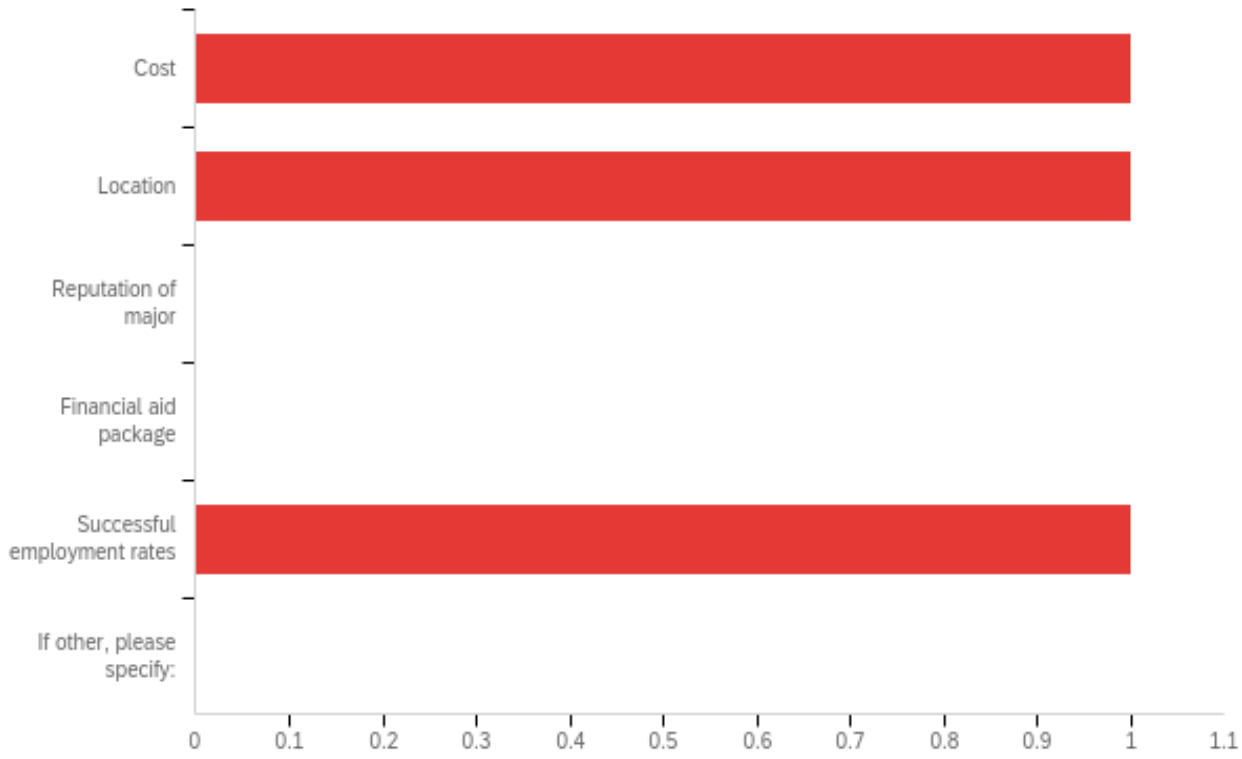


#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	a. An ability to apply knowledge of mathematics, science, and applied sciences.	1.00	1.00	1.00	0.00	0.00	1
2	b. An ability to design and conduct experiments, as well as to analyze and interpret data.	1.00	1.00	1.00	0.00	0.00	1
3	c. An ability to formulate or design a system, process or program to meet desired needs.	1.00	1.00	1.00	0.00	0.00	1

4	d. An ability to function on multi-disciplinary teams.	3.00	3.00	3.00	0.00	0.00	1
5	e. An ability to identify and solve applied science problems.	1.00	1.00	1.00	0.00	0.00	1
6	f. An understanding of professional and ethical responsibility.	2.00	2.00	2.00	0.00	0.00	1
7	g. An ability to communicate effectively.	2.00	2.00	2.00	0.00	0.00	1
8	h. The broad education necessary to understand the impact of solutions in a global and societal context.	2.00	2.00	2.00	0.00	0.00	1
9	i. A recognition of the need for, and an ability to engage in life-long learning.	2.00	2.00	2.00	0.00	0.00	1
10	j. A knowledge of contemporary issues.	2.00	2.00	2.00	0.00	0.00	1
11	k. An ability to use the techniques, skills, and modern scientific and technical tools necessary for professional practice.	1.00	1.00	1.00	0.00	0.00	1

#	Question	Very much		Quite a bit		Some		Very little		Total
1	a. An ability to apply knowledge of mathematics, science, and applied sciences.	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1
2	b. An ability to design and conduct experiments, as well as to analyze and interpret data.	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1
3	c. An ability to formulate or design a system, process or program to meet desired needs.	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1
4	d. An ability to function on multi-disciplinary teams.	0.00%	0	0.00%	0	100.00%	1	0.00%	0	1
5	e. An ability to identify and solve applied science problems.	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1
6	f. An understanding of professional and ethical responsibility.	0.00%	0	100.00%	1	0.00%	0	0.00%	0	1
7	g. An ability to communicate effectively.	0.00%	0	100.00%	1	0.00%	0	0.00%	0	1
8	h. The broad education necessary to understand the impact of solutions in a global and societal context.	0.00%	0	100.00%	1	0.00%	0	0.00%	0	1
9	i. A recognition of the need for, and an ability to engage in life-long learning.	0.00%	0	100.00%	1	0.00%	0	0.00%	0	1
10	j. A knowledge of contemporary issues.	0.00%	0	100.00%	1	0.00%	0	0.00%	0	1
11	k. An ability to use the techniques, skills, and modern scientific and technical tools necessary for professional practice.	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1

Q BGMG 3 - What attracted to you to Oregon Tech? Please check all that apply.

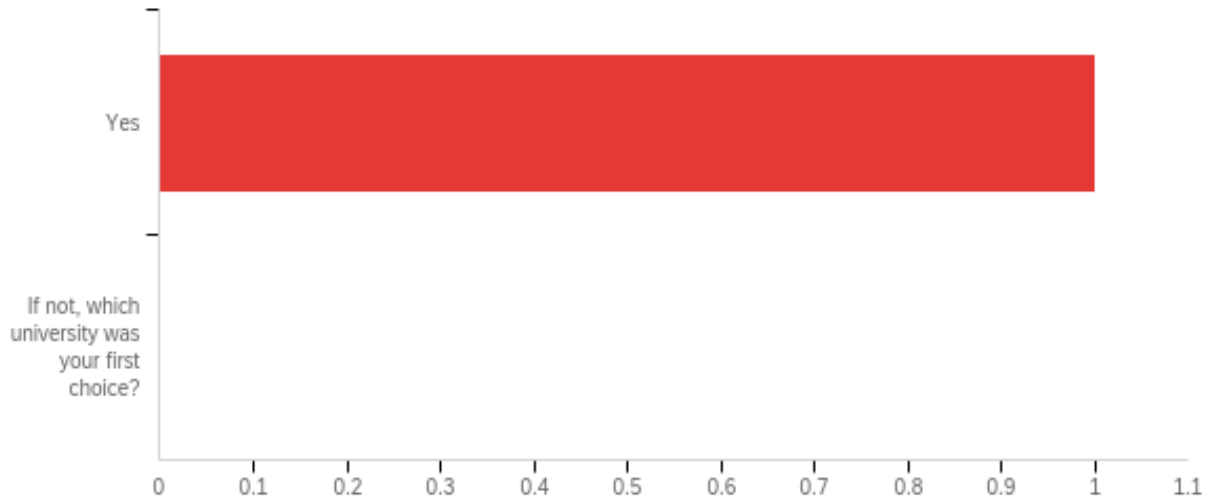


#	Answer	%	Count
1	Cost	33.33%	1
2	Location	33.33%	1
3	Reputation of major	0.00%	0
4	Financial aid package	0.00%	0
5	Successful employment rates	33.33%	1
6	If other, please specify:	0.00%	0
	Total	100%	3

Q BGMG 3_6_TEXT - If other, please specify:

If other, please specify: - Text

Q BGMG 4 - Was Oregon Tech your first choice?



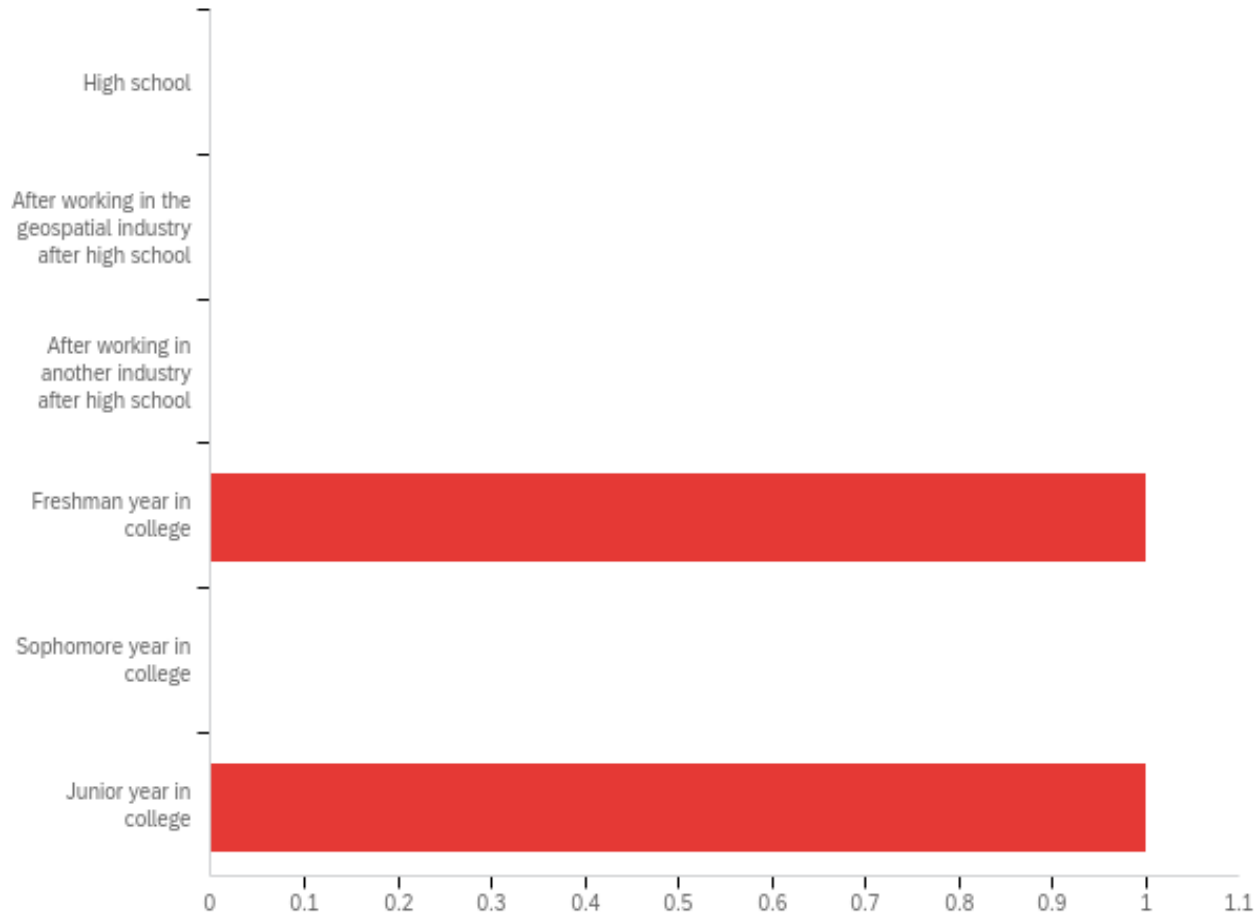
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Was Oregon Tech your first choice? - Selected Choice	1.00	1.00	1.00	0.00	0.00	1

#	Answer	%	Count
1	Yes	100.00%	1
2	If not, which university was your first choice?	0.00%	0
	Total	100%	1

Q BGMG 4_2_TEXT - If not, which university was your first choice?

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

Q BGMG 5 - When did you choose Geomatics as a major?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	When did you choose Geomatics as a major?	4.00	6.00	5.00	1.00	1.00	2

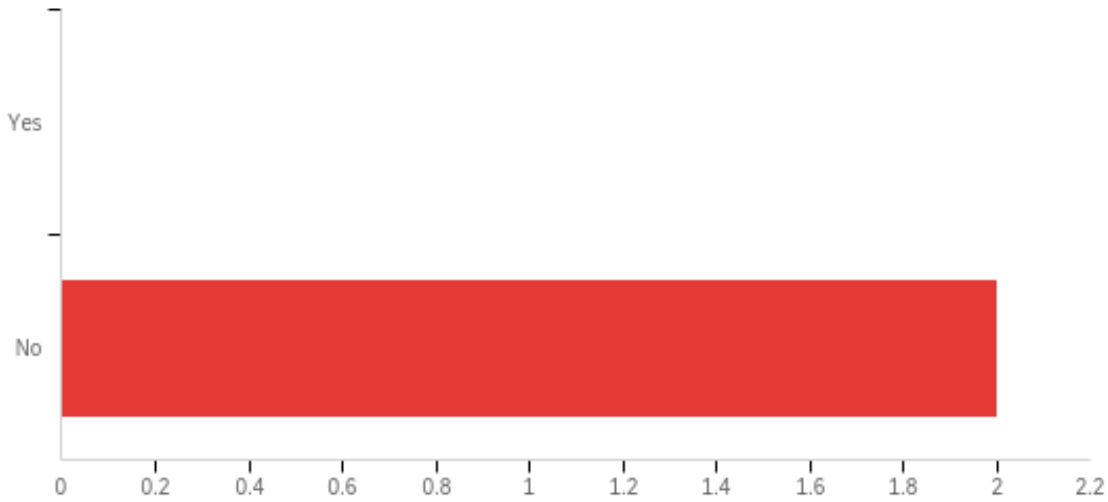
#	Answer	%	Count
1	High school	0.00%	0
2	After working in the geospatial industry after high school	0.00%	0
3	After working in another industry after high school	0.00%	0
4	Freshman year in college	50.00%	1
5	Sophomore year in college	0.00%	0

6		Junior year in college	50.00%	1
		Total	100%	2

Q BGMG 6 - How many summer internships did you complete?

How many summer internships did you complete?
2
3

Q BGMG 7 - Did you take the FLS exam while a student at Oregon Tech?



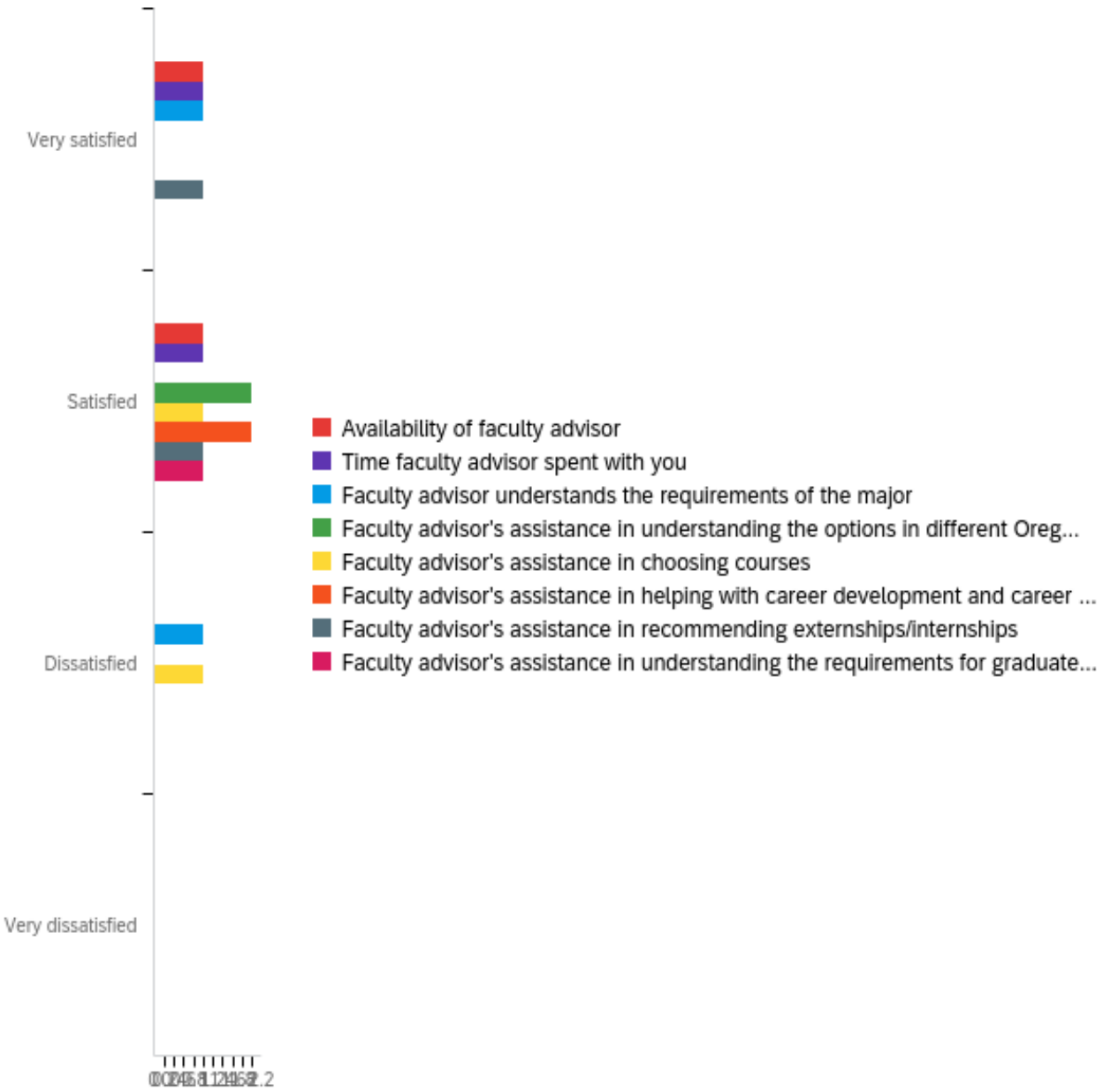
#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Did you take the FLS exam while a student at Oregon Tech?	2.00	2.00	2.00	0.00	0.00	2

#	Answer	%	Count
1	Yes	0.00%	0
2	No	100.00%	2
	Total	100%	2

Q BGMG 8 - What do you think should be added to the curriculum to improve student knowledge before taking the FLS exam?

What do you think should be added to the curriculum to improve student knowledge before taking the FLS exam?
Tree ID

Q BGMG 9 - Please indicate your level of satisfaction with the Geomatics program advisors.



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Availability of faculty advisor	1.00	2.00	1.50	0.50	0.25	2
2	Time faculty advisor spent with you	1.00	2.00	1.50	0.50	0.25	2
3	Faculty advisor understands the requirements of the major	1.00	3.00	2.00	1.00	1.00	2
4	Faculty advisor's assistance in understanding the options in different Oregon Tech majors	2.00	2.00	2.00	0.00	0.00	2
5	Faculty advisor's assistance in choosing courses	2.00	3.00	2.50	0.50	0.25	2

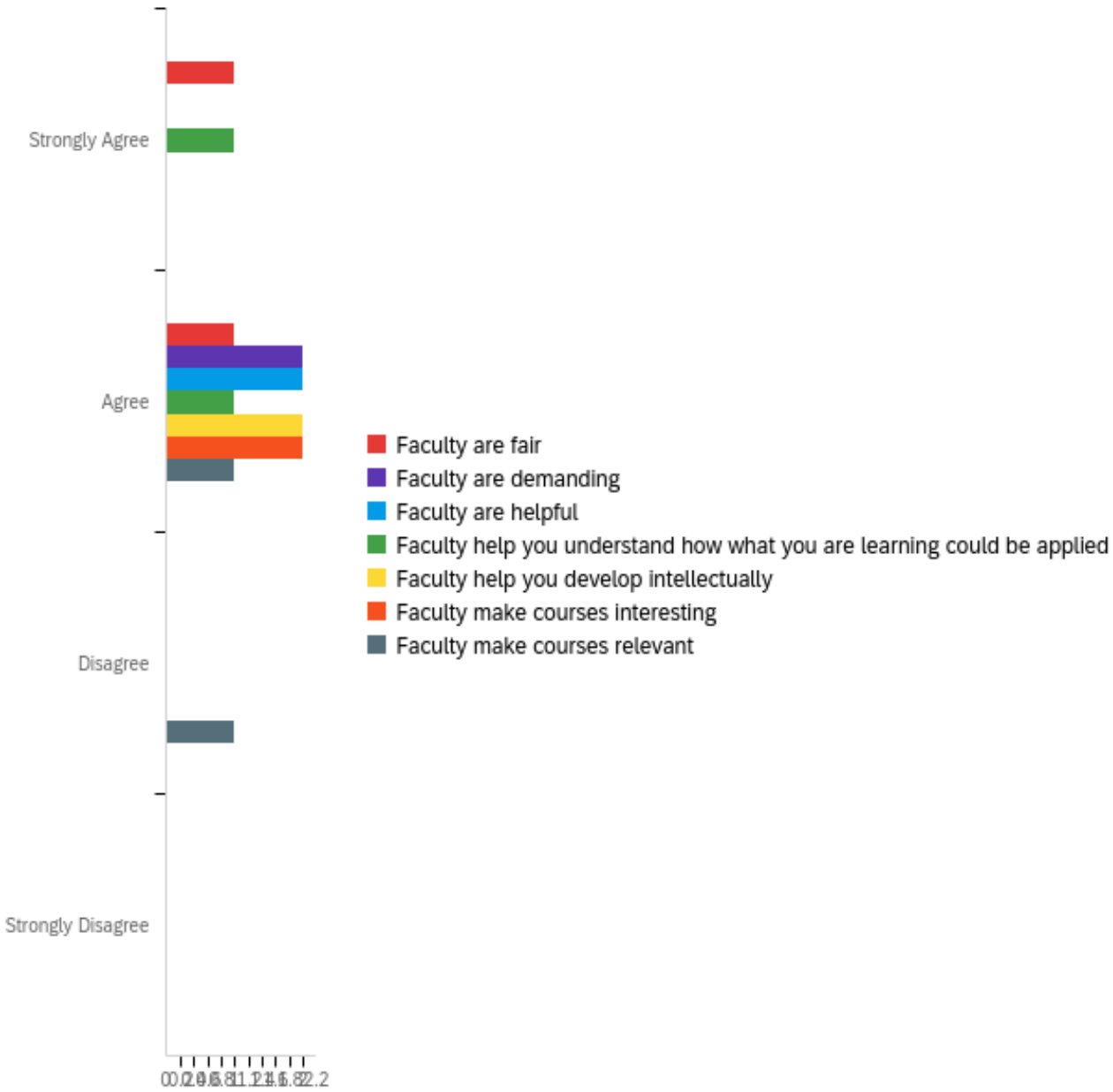
6	Faculty advisor's assistance in helping with career development and career opportunities	2.00	2.00	2.00	0.00	0.00	2
7	Faculty advisor's assistance in recommending externships/internships	1.00	2.00	1.50	0.50	0.25	2
8	Faculty advisor's assistance in understanding the requirements for graduate school	2.00	2.00	2.00	0.00	0.00	1

#	Question	Very satisfied		Satisfied		Dissatisfied		Very dissatisfied		Total
1	Availability of faculty advisor	50.00%	1	50.00%	1	0.00%	0	0.00%	0	2
2	Time faculty advisor spent with you	50.00%	1	50.00%	1	0.00%	0	0.00%	0	2
3	Faculty advisor understands the requirements of the major	50.00%	1	0.00%	0	50.00%	1	0.00%	0	2
4	Faculty advisor's assistance in understanding the options in different Oregon Tech majors	0.00%	0	100.00%	2	0.00%	0	0.00%	0	2
5	Faculty advisor's assistance in choosing courses	0.00%	0	50.00%	1	50.00%	1	0.00%	0	2
6	Faculty advisor's assistance in helping with career development and career opportunities	0.00%	0	100.00%	2	0.00%	0	0.00%	0	2
7	Faculty advisor's assistance in recommending externships/internships	50.00%	1	50.00%	1	0.00%	0	0.00%	0	2
8	Faculty advisor's assistance in understanding the requirements for graduate school	0.00%	0	100.00%	1	0.00%	0	0.00%	0	1

Q BGMG 10 - Do you have any comments about advising?

Do you have any comments about advising?
All the business classes required should be traded out for geography, some type of tree/plant Id course.

Q BGMG 11 - Please provide feedback on the Geomatics faculty.



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Faculty are fair	1.00	2.00	1.50	0.50	0.25	2
2	Faculty are demanding	2.00	2.00	2.00	0.00	0.00	2
3	Faculty are helpful	2.00	2.00	2.00	0.00	0.00	2
4	Faculty help you understand how what you are learning could be applied	1.00	2.00	1.50	0.50	0.25	2
5	Faculty help you develop intellectually	2.00	2.00	2.00	0.00	0.00	2

6	Faculty make courses interesting	2.00	2.00	2.00	0.00	0.00	2
7	Faculty make courses relevant	2.00	3.00	2.50	0.50	0.25	2

#	Question	Strongly Agree		Agree		Disagree		Strongly Disagree		Total
1	Faculty are fair	50.00%	1	50.00%	1	0.00%	0	0.00%	0	2
2	Faculty are demanding	0.00%	0	100.00%	2	0.00%	0	0.00%	0	2
3	Faculty are helpful	0.00%	0	100.00%	2	0.00%	0	0.00%	0	2
4	Faculty help you understand how what you are learning could be applied	50.00%	1	50.00%	1	0.00%	0	0.00%	0	2
5	Faculty help you develop intellectually	0.00%	0	100.00%	2	0.00%	0	0.00%	0	2
6	Faculty make courses interesting	0.00%	0	100.00%	2	0.00%	0	0.00%	0	2
7	Faculty make courses relevant	0.00%	0	50.00%	1	50.00%	1	0.00%	0	2

Q BGMG 12 - 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.

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.
Hands on learning with in the field equipment, being taught relevant and updated systems like ArcGIS Online and ArcPro
Dr. Ritter was an incredible professor. His courses covered the material very thoroughly and he made sure we understood it in detail. He didn't just teach us the tools and context to use them, he taught us how each one worked and examples of how to adjust the settings for each.

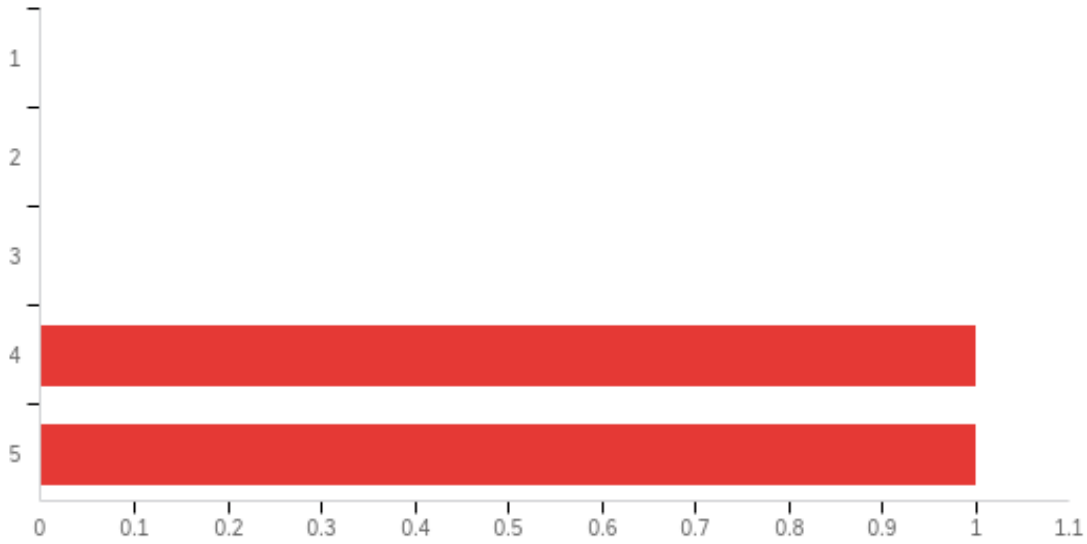
Q BGMG 13 - What have been the three worst things about your major? These might be experiences, particular courses or professors, general characteristics or features of the program--anything at all that was important to you.

What have been the three worst 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.
Key core classes being turned into something completely different due to instructor change, being the experimental class for hybrid learning due to covid
We took a class where we were supposed to learn about relationship classes and the professor instead had us do a capstone project the entire term, it felt like a senior project. For our actual senior project we spent the first 6 weeks deciding on how to use the data he gave us instead of working on it. The professor didn't really listen to our ideas and had his own idea of what the senior project should be.

Q BGMG 14 - What are one or two specific things we could do to improve the Geomatics major?

What are one or two specific things we could do to improve the Geomatics major?
Get another professor to help with the surveying classes and get a drone that the students can fly instead of having to only watch Prof. Walker fly. Maybe the drone club will help with this?
Some of my humanities classes took up more time and effort than the actual program classes, that would be nice to fix.

Q BGMG 15 - What is your overall rating of the quality of education you received at Oregon Tech?



#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	What is your overall rating of the quality of education you received at Oregon Tech?	4.00	5.00	4.50	0.50	0.25	2

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

Q BGMG 16 - Do you have any other comments about your time at Oregon Tech?

Do you have any other comments about your time at Oregon Tech?
Keep focusing on small class size with hands on learning and the university will flourish.