



## 2016-17 Program Assessment Report

### Software Engineering Technology B.S.

#### Mission, Objectives & Learning Outcomes

##### **Oregon Tech Mission**

Oregon Institute of Technology, an Oregon public university, offers innovative and rigorous applied degree programs in the areas of engineering, engineering technologies, health technologies, management, and the arts and sciences. To foster student and graduate success, the university provides an intimate, hands-on learning environment, focusing on application of theory to practice. Oregon Tech offers statewide educational opportunities for the emerging needs of Oregonians and provides information and technical expertise to state, national and international constituents.

##### **Core Theme 1: Applied Degree Programs**

Oregon Tech offers innovative and rigorous applied degree programs. The teaching and learning model at Oregon Tech prepares students to apply the knowledge gained in the classroom to the workplace.

##### **Core Theme 2: Student and Graduate Success**

Oregon Tech fosters student and graduate success by providing an intimate, hands-on learning environment, which focuses on application of theory to practice. The teaching and support services facilitate students' personal and academic development.

##### **Core Theme 3: Statewide Educational Opportunities**

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

##### **Core Theme 4: Public Service**

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

##### **Program Alignment to Oregon Tech Mission and Core Themes**

Our program is very hands-on and thus aligns with Core Theme 1.

Our graduates are in high demand by the industries we support. This is evidence that we are aligned with Core Theme 2.

### **Program Mission**

The mission of the Software Engineering (SE) Bachelor's Degree Program within Computer Systems Engineering (CSE) Department at Oregon Institute of Technology is to prepare our students for productive careers by providing an excellent education incorporating industry-relevant, applied laboratory-based instruction in both the theory and application of software engineering. The program is to serve a constituency consisting of our alumni, our employers and our Industrial Advisory Board. Major components of the SE Program's mission in the CSE Department are:

- To educate a new generation of Software Engineering Technology students to meet current and future industrial challenges and emerging software trends.
- To promote a sense of scholarship, leadership, and professional service among our graduates.
- To enable our students to create, develop, apply, and disseminate knowledge within the field of software engineering
- To expose our students to cross-disciplinary educational programs.
- To provide employers with graduates in software engineering and related professions.

### **Program Educational Objectives**

- Use their knowledge of engineering to creatively and innovatively solve difficult computer systems problems.
- Regularly engage in exploring, learning and applying state-of-the-art hardware and software technologies to the solution of computer systems problems.
- Will be an effective team member that contributes innovative software design solutions to the resolution of real world problems.
- Will communicate effectively and successfully, both as an individual and within multi-disciplinary teams.

### **Program Faculty Review**

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

The SET program faculty met during convocation. We reviewed and revised our mission statement and educational objectives.

[\*Attachment 1\\_SET\\_Mission\\_Statement\\_2016\\_Changes\*](#)

### **Showcase Learning Opportunities**

Many of our students take advantage of internships. We are part of the MECOP program, where students participate in two 6-month internships. Participation in MECOP is as high as 50% of our students. Many other students who do not participate in MECOP find internships on their own.

## **Program History & Vision**

### **Program History**

The Software Engineering Technology (SET) program was implemented in Klamath Falls in 1984 and was initially accredited by TAC of ABET in 1991. The Portland program was established in Fall 1996 under the same accreditation and is currently located on the Wilsonville campus. The Associate degree was

accredited by TAC of ABET in 2009. The program has continuously evolved as industrial changes have warranted.

#### **Meeting with Advisory Board**

Program faculty held a meeting with their Advisory Board during the academic year.

#### **Advisory Board Review**

The Advisory Board reviewed the Program Mission and Objectives during the academic year.

We met Friday May 5th. Notes are attached.

[\*Attachment 2\\_SP\\_2017\\_IAB\\_Questions\\_Followup\*](#)

#### **Program Enrollment**

Enrollment at the beginning of the year was 285 students. This is down from the previous year, but aside from this year, our enrollment trends has been upward.

[\*Attachment 3\\_Enrollment\\_5\\_Year\\_History\\_by\\_Major\*](#)

#### **Program Graduates**

We had 47 graduates this year. This is the highest over the last 10 years.

[\*Attachment 4\\_Graduates\\_10\\_Year\\_History\\_by\\_Major\*](#)

#### **Employment Rates and Salaries**

93% of our graduates have found employment with a median salary of \$66,750

[\*Attachment 5\\_Grad\\_Data\\_First\\_Destination\\_3\\_Year\\_History\\_by\\_Major\*](#)

#### **Pass Rates on Board and Licensure Exam**

N/A

#### **Results of Board or Licensure Exam**

N/A

#### **Other Program Assessment Data**

N/A

#### **Desired Data**

N/A

### **Closing the Loop**

**Describe any actions taken and re-assessment done during this academic year in response to assessment findings from prior academic years.**

Program Faculty implemented actions during the academic year based on assessment findings from previous assessment cycles.

We have gathered assessment data following changes that indicates improvement in student learning.

**Changes Implemented**

Data suggested there may be a problem with problem solving in our students. We re-did the assessment for problem solving, and the new data suggests that the problems identified the previous year were simply a blip in the data. In the re-assessment, both the cohort that had the problem in the previous year and a new cohort of students had acceptable performance on the assessment.

data suggested that our students’ commitment to quality and timeliness needed improvement. We emphasized this more throughout our curriculum, particularly in our Junior Project sequence.

**Assessment Findings**

In 2015-2016, the students in our Junior Project sequence showed a lack of problem solving skill. We re-did the assessment in both our Senior Project and Junior Project sequences. The seniors represented the same cohort of students that showed the problem in the previous year. Both cohorts of students showed strong problem solving skills. We concluded that an additional year of development in the weak juniors was sufficient to rectify the problem.

**Program Student Learning Outcomes Assessment Cycle**

<b>PROGRAM STUDENT LEARNING OUTCOMES</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>3-Year Cycle</b> <b>Software Engineering Technology B.S.</b>			
OIT-BSOF 2016-17.a An ability to select and apply the knowledge, techniques, skills, and modern tools of the discipline to broadly-defined engineering technology activities;			
OIT-BSOF 2016-17.b An ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies;	CST 320 CST 324		
OIT-BSOF 2016-17.c An ability to conduct standard tests and measurements; to conduct, analyze, and interpret experiments; and to apply experimental results to improve processes;			
OIT-BSOF 2016-17.d An ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives;	CST 336 CST 432		
OIT-BSOF 2016-17.e An ability to function effectively as a member or leader on a technical team;	CST 316 CST 336		
OIT-BSOF 2016-17.f An ability to identify, analyze, and solve broadly-defined engineering technology problems;			
OIT-BSOF 2016-17.g An ability to apply written, oral, and graphical communication in both technical and non-	CST 223 CST 334		

technical environments; and an ability to identify and use appropriate technical literature;	CST 432		
OIT-BSOF 2016-17.h An understanding of the need for and an ability to engage in self-directed continuing professional development;	CST 223 CST 432		
OIT-BSOF 2016-17.i An understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity;			
OIT-BSOF 2016-17.j A knowledge of the impact of engineering technology solutions in a societal and global context; and			
OIT-BSOF 2016-17.k A commitment to quality, timeliness, and continuous improvement.			

## Assessment Map & Measure

**F – Foundation – introduction of the learning outcome, typically at the lower-division level,**

**P – Practicing – reinforcement and elaboration of the learning outcome, or**

**C – Capstone – demonstration of the learning outcome at the target level for the degree**

**For each outcome, programs should identify at least 2 direct measures (student work that provides evidence of their knowledge and skills), and 1 indirect measure (student self-assessment of their knowledge and skills) for each outcome.**

**For every program, data from the Student Exit Survey will be an indirect measure at the capstone level.**

OIT-BSOF 2016-17.b An ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies.	
<b>Course/Event</b>	CST 320
<b>Legend</b>	P – Practice
<b>Assessment Measure</b>	Direct – Assignment
<b>Criterion</b>	80% or more are proficient or better
<b>Course/Event</b>	CST 324
<b>Legend</b>	P – Practice
<b>Assessment Measure</b>	Direct – Assignment
<b>Criterion</b>	80% or more are proficient or better
<b>Course/Event</b>	Student Exit Survey
<b>Legend</b>	C – Capstone
<b>Assessment Measure</b>	Indirect – Student Exit Survey
<b>Criterion</b>	80% of students rate themselves as “proficient” or better

OIT-BSOF 2016-17.d An ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives.	
<b>Course/Event</b>	CST 336
<b>Legend</b>	P – Practice
<b>Assessment Measure</b>	Direct – Assignment
<b>Criterion</b>	80% or more are proficient or better
<b>Course/Event</b>	CST 432
<b>Legend</b>	C – Capstone
<b>Assessment Measure</b>	Direct – Assignment
<b>Criterion</b>	80% or more are proficient or better
<b>Course/Event</b>	Student Exit Survey
<b>Legend</b>	C – Capstone
<b>Assessment Measure</b>	Indirect – Student Exit Survey
<b>Criterion</b>	80% of students rate themselves as “proficient” or better

OIT-BSOF 2016-17.e An ability to function effectively as a member or leader on a technical team.	
<b>Course/Event</b>	CST 316
<b>Legend</b>	P – Practice
<b>Assessment Measure</b>	Direct – Behavioral Observation
<b>Criterion</b>	80% or more are proficient or better
<b>Course/Event</b>	CST 336
<b>Legend</b>	C – Capstone
<b>Assessment Measure</b>	Direct – Behavioral Observation
<b>Criterion</b>	80% are proficient or better
<b>Course/Event</b>	Student Exit Survey
<b>Legend</b>	C – Capstone
<b>Assessment Measure</b>	Indirect – Student Exit Survey
<b>Criterion</b>	80% of students rate themselves as “proficient” or better

OIT-BSOF 2016-17.g An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature.	
<b>Course/Event</b>	CST 223
<b>Legend</b>	F – Foundation
<b>Assessment Measure</b>	Direct – Oral Presentation
<b>Criterion</b>	70% or more are proficient or better
<b>Course/Event</b>	CST 334
<b>Legend</b>	P – Practice
<b>Assessment Measure</b>	Direct – Assignment
<b>Criterion</b>	80% are proficient or better

<b>Course/Event</b>	CST 432
<b>Legend</b>	C – Capstone
<b>Assessment Measure</b>	Direct – Oral Presentation
<b>Criterion</b>	80% or more are proficient or better
<b>Course/Event</b>	Student Exit Survey
<b>Legend</b>	C – Capstone
<b>Assessment Measure</b>	Indirect – Student Exit Survey
<b>Criterion</b>	80% of students rate themselves as “proficient” or better

OIT-BSOF 2016-17.h An understanding of the need for and an ability to engage in self-directed continuing professional development.	
<b>Course/Event</b>	CST 223
<b>Legend</b>	P – Practice
<b>Assessment Measure</b>	Direct – Assignment
<b>Criterion</b>	60% or more are proficient
<b>Course/Event</b>	CST 432
<b>Legend</b>	C – Capstone
<b>Assessment Measure</b>	Direct – Behavioral Observation
<b>Criterion</b>	80% are proficient or better
<b>Course/Event</b>	Student Exit Survey
<b>Legend</b>	C – Capstone
<b>Assessment Measure</b>	Indirect – Student Exit Survey
<b>Criterion</b>	80% of students rate themselves as “proficient” or better

## Analysis of Results

OIT-BSOF 2016-17.b An ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies.	
<b>Criterion</b>	Met
<b>Summary</b>	N/A
<b>Improvement Narrative</b>	<i>Assessment Method Change:</i> The problem chosen for assessment did not adequately reflect what we wanted to measure. The next time this is assessed, we need to pick new problems and probably also need to review the rubric

[Attachment 6\\_CST\\_320\\_ABET\\_B\\_Left\\_Factor](#)

[Attachment 7\\_CST\\_320\\_ABET\\_B\\_Left\\_Recursion](#)

[Attachment 8\\_PSLO\\_Exit\\_Survey\\_Data](#)

OIT-BSOF 2016-17.d An ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives.

<b>Criterion</b>	Met
<b>Summary</b>	This was a repeat of the previous year's assessment. This year's data did not show any issues. Students met the requirement.
<b>Improvement Narrative</b>	N/A

[Attachment 9\\_JP\\_Design](#)

[Attachment 10\\_SP\\_1\\_Design](#)

[Attachment 11\\_SP\\_3\\_Design](#)

[Attachment 8\\_PSLO\\_Exit\\_Survey\\_Data](#)

OIT-BSOF 2016-17.e An ability to function effectively as a member or leader on a technical team.

<b>Criterion</b>	Met
<b>Summary</b>	The data indicated that our students do an excellent job functioning as an effective team member.
<b>Improvement Narrative</b>	N/A

[Attachment 12\\_JP\\_Group\\_Fall](#)

[Attachment 13\\_JP\\_Group\\_Spring](#)

[Attachment 8\\_PSLO\\_exit\\_survey\\_data](#)

OIT-BSOF 2016-17.g An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature.

<b>Criterion</b>	Met
<b>Summary</b>	The data for CST 223 showed less proficiency than desired. However, CST 223 is taken at the end of the sophomore year. Later courses (CST 334 and 432) showed that our students meet the standard by the time they graduate.
<b>Improvement Narrative</b>	N/A



*Attachment 14\_CST\_223\_Oral*

*Attachment 15\_Proposal\_Written\_Comm*

*Attachment 16\_SP\_Oral\_Communication*

*Attachment 8\_PSLO\_Exit\_Survey\_Data*

OIT-BSOF 2016-17.h An understanding of the need for and an ability to engage in self-directed continuing professional development.

<b>Criterion</b>	Met
<b>Summary</b>	Both our Junior Project and Senior Project require students to learn and use software, methods, etc. beyond what they are taught in our classes. The data show that our students are well equipped to do this.
<b>Improvement Narrative</b>	N/A

*Attachment 17\_JP\_Lifelong\_Learning*

*Attachment 18\_SP\_H\_Self\_Directed\_Learning*

*Attachment 8\_PSLO\_Exit\_Survey\_Data*

## References

**Program Assessment Coordinator: Philip Howard, Assistant Professor, Computer Systems Engineering Technology**

**Office of Academic Excellence**

### Mission Statement

The mission of the Software Engineering Technology (SET) Bachelor's Degree Program within Computer Systems Engineering Technology (CSET) Department at Oregon Institute of Technology is to prepare our students for productive careers ~~in industry and government~~ by providing an excellent education incorporating industry-relevant, applied laboratory-based instruction in both the theory and application of software engineering.

### Mission Statement

- I. To educate a new generation of Software Engineering Technology students to meet current and future industrial challenges and emerging software trends.
- II. To promote a sense of scholarship, leadership, and professional service among our graduates.
- III. To enable our students to create, develop, apply, and disseminate knowledge within the ~~field of software development environment engineering~~.
- IV. To expose our students to cross-disciplinary educational programs.
- V. To provide ~~government and high tech industry~~ employers with graduates in software engineering and related professions.

### Educational Objectives

The Program Educational Objectives of OIT's Software Engineering Technology program are to produce graduates that:

- A. Use their knowledge of engineering to creatively and innovatively solve difficult computer systems problems.
- B. Regularly engage in exploring, learning and applying state-of-the-art hardware and software technologies to the solution of computer systems problems.
- C. Will be an effective ~~software development~~ team member that contributes to innovative software design solutions to the resolution of ~~business, scientific or government~~ computer systems problems.
- D. Will communicate effectively ~~and successfully~~, both as an individually and within multi-disciplinary teams.

As the software program director, I would appreciate IAB feedback on the following:

1. During the sophomore year, students are expected to take the following courses as prerequisites to Junior Project (JP):
  - a. Software design patterns (CST 276)
  - b. GUI programming (CST 238) Focus on human factors
  - c. Software Systems Testing (CST 236) – more of a software engineering methodologies course: it covers much more than testing

Are these three courses equal in value? How would you rate their importance? Suppose we offered 4 or 5 courses of this nature with the requirement that students must have N of them as prerequisites to JP. What other courses would be valuable? (Note: non-negotiable pre or co-reqs are data structures (CST 211) and databases (CST 324))

2. Our Concepts of Programming course (CST 223) is structured as follows (at least in my version of the course)
  - a. A couple of weeks on Java (focusing on the differences between C++ and Java)
  - b. A little bit of Python
  - c. A (mostly) pure functional language (e.g. Scheme)
  - d. A logic language (e.g. Prolog)
  - e. the quarter ends with students choosing a language (from a broad list), learning the language on their own, developing a project, then presenting to the class what they learned.

The goals are:

1. Be exposed to a wide array of languages and programming paradigms
2. Understand what makes a language good/bad for a particular project
3. Understand attributes of languages (programmer efficiency, runtime efficiency, level of abstraction, type system, etc.)
4. Be equipped to learn new languages/environments on their own

Any thoughts on restructuring this class? How valuable is it? How can it be improved?

3. What are the currently hot topics/languages/environments/methodologies/technologies in industry that we should prepare our students for?
4. What are the most important things to cover in our data structures class?
5. Is a single quarter of data structures/algorithms sufficient or should we add a second course?
6. We currently require four writing courses: WRI 121 English Composition, WRI 122 Argumentative Writing, WRI 227 Technical Report Writing, and either WRI 327 Advanced Technical Writing or WRI 350 Documentation Development. The first three are required by OIT. Is the fourth sufficiently valuable that we should keep it as a requirement? **yes. Writing is good.**
7. We have a large number of community college transfer students, and expect more in the future. Because of the depth of our program, students who take two years at a community college generally require at least three here to complete their degree. Any thoughts on how we can move closer to a 2+2 instead of a 2+3 without compromising the quality of our program?

**Working on it. OCCC is working towards “optimal transfer points”, which don’t have to be “after 6 quarters”.**

8. We have a hard time attracting quality faculty members. Salary is often an issue, but we even have a hard time getting quality applicants (salary range is not part of the job announcement). Any suggestions on how we can recruit quality candidates? **Update on searches.**

The following data represents majors declared by student as of Fall 4th week. Students with multiple/dual majors have been reported under each major in which they enrolled; therefore the student headcount will be duplicated. A small number of students that declared a third major have now been included in this report. Data reported is combined for all levels and all locations. Some programs may have had name changes such as CLS and have been reported as they were (historically).

Description	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016	5 Year Difference	5 Year % Change
ABA Course Series	0	0	3	0	0	0	-
Accounting Certificate	0	0	0	0	1	1	-
Allied Health	0	0	0	0	3	3	-
Allied Health Management	11	5	3	2	1	-10	-90.9%
Applied Behavior Analysis	0	0	0	10	17	17	-
Applied Mathematics	41	38	47	42	33	-8	-19.5%
Applied Psychology	146	149	122	96	110	-36	-24.7%
Automat, Robot, & Cntrl Engr	0	0	0	0	1	1	-
Biology	15	8	1	1	0	-15	-100.0%
Biology-Health Sciences	136	150	150	138	151	15	11.0%
Civil Engineering	127	121	110	120	118	-9	-7.1%
Clinical Lab Science-Earlyadm	6	10	35	22	0	-6	-100.0%
Clinical Laboratory Science	62	85	94	95	2	-60	-96.8%
Communication Studies	55	42	39	47	40	-15	-27.3%
Computer Engineering Tech	82	82	81	86	63	-19	-23.2%
Dental Hygiene	226	240	211	221	202	-24	-10.6%
Diagnostic Medical Sonography	86	104	95	102	112	26	30.2%
Dispute Resolution Certificate	1	1	2	4	2	1	100.0%
Echocardiography	121	119	123	122	128	7	5.8%
Electrical Engineering	76	120	146	164	197	121	159.2%
Electronics Engineering Tech	67	58	51	37	32	-35	-52.2%
Embedded Systems Eng Tech	24	25	32	35	57	33	137.5%
Emergency Medical Services Mgt	0	0	17	20	34	34	-
EMT - Paramedic	29	30	29	28	28	-1	-3.4%
Environmental Sciences	49	49	51	48	42	-7	-14.3%
General Studies	495	736	632	1,031	1,414	919	185.7%
Geomatics	1	0	0	0	0	-1	-100.0%
Geomatics-option in GIS	13	14	10	10	7	-6	-46.2%
Geomatics-option in Surveying	49	39	26	31	30	-19	-38.8%
Health Care Mgmt-Admin Mgmt	0	10	14	19	18	18	-
Health Care Mgmt-Clinical Mgmt	0	4	10	11	25	25	-
Health Care Mgmt-Rad Science	0	3	6	12	12	12	-
Health Informatics	0	0	0	20	38	38	-
Health Sciences	1	1	0	1	2	1	100.0%
Information Technology	0	0	0	56	114	114	-
IT Accounting Option	8	4	2	1	1	-7	-87.5%
IT Applications Dev Opt	91	75	71	48	20	-71	-78.0%
IT Bus/Systems Analysis Opt	58	59	69	51	28	-30	-51.7%
IT Health Informatics Opt	54	68	59	32	17	-37	-68.5%
Magnetic Resonance Imagng Spec	0	0	0	0	4	4	-
Manufacturing Engineering Tech	129	99	109	107	101	-28	-21.7%
Marriage and Family Therapy	0	0	0	0	10	10	-
Mechanical Engineering	208	303	331	323	354	146	70.2%
Mechanical Engineering Tech	145	112	121	121	104	-41	-28.3%
Medical Lab Science-Earlyadm	0	0	0	0	17	17	-
Medical Laboratory Science	0	0	0	0	86	86	-
Mgmt Info Sys/Mgmt Acc Option	1	0	0	0	0	-1	-100.0%
Mgmt/Accounting Option	32	38	35	32	19	-13	-40.6%
Mgmt/Marketing Option	34	34	36	34	37	3	8.8%
Mgmt/Small Bus Mgmt Option	54	43	38	37	33	-21	-38.9%
MIT Applicant	0	0	1	2	0	0	-
Nuclear Medicine Technology	47	51	48	48	49	2	4.3%
Nursing	50	49	52	61	69	19	38.0%
Operations Management	61	66	65	69	70	9	14.8%
Optical Engineering	0	0	3	3	3	3	-
Picture Archive/Comm Sys Spec	0	0	1	2	3	3	-
Polysomnographic Technology	19	13	6	12	5	-14	-73.7%
Population Health Management	0	0	3	24	31	31	-
Pre-Clinical Lab Science	0	8	1	20	2	2	-
Pre-Dental Hygiene	62	65	35	37	48	-14	-22.6%
Pre-Medical Imaging Tech	273	287	253	237	226	-47	-17.2%
Pre-Medical Lab Science	0	0	0	0	27	27	-
Pre-Nursing	56	60	53	69	78	22	39.3%
Pre-Paramedic Education	0	3	3	7	0	0	-
Pre-Renewable Energy Eng	111	0	0	0	0	-111	-100.0%
Pre-Respiratory Care	11	12	8	11	9	-2	-18.2%
Radiologic Science	164	163	154	160	152	-12	-7.3%
Renewable Energy Engineering	110	206	203	180	166	56	50.9%
Respiratory Care	85	84	88	103	117	32	37.6%
Sleep Health-Polysom Tech Opt	0	0	4	6	17	17	-
Software Engineering Tech	260	268	289	309	285	25	9.6%
Spec in Entrepreneur/Small Bus	0	0	0	1	2	2	-
Specialization in Accounting	0	0	0	2	2	2	-
Specialization in Marketing	0	0	1	1	1	1	-
Specialization Travel/Tourism	0	1	0	0	0	0	-
System Engr & Technical Mgmt	0	0	2	3	0	0	-
Technology and Management	16	30	43	46	46	30	187.5%
Vascular Technology	88	95	80	93	98	10	11.4%
<b>Total (Duplicated)</b>	<b>4,146</b>	<b>4,539</b>	<b>4,407</b>	<b>4,923</b>	<b>5,371</b>	<b>1,225</b>	<b>29.5%</b>
<b>Total (Unduplicated)</b>	<b>4,001</b>	<b>4,414</b>	<b>4,273</b>	<b>4,786</b>	<b>5,232</b>	<b>1,231</b>	<b>30.8%</b>

# Oregon TECH

10 Year History By Major and Degree Type

As of September 5, 2016

## Specializations

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Picture Archive/Comm Sys Spec	-	-	-	-	-	-	4	4	3	-
Specialization in Accounting	-	-	-	-	-	-	-	1	-	-
Specialization in Marketing	-	-	-	-	-	-	-	2	-	-
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>7</b>	<b>3</b>	<b>0</b>

## Certificates

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Accounting Certificate	-	-	-	-	-	-	-	-	-	-
Dispute Resolution Certificate	1	2	1	2	4	1	6	11	1	2
Marketing Certificate	-	-	-	-	-	-	-	-	-	-
Polysomnographic Technology	-	-	4	14	13	11	8	6	3	9
<b>Total</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>16</b>	<b>17</b>	<b>12</b>	<b>14</b>	<b>17</b>	<b>4</b>	<b>11</b>

## Associates

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Associate of Arts	13	8	2	5	-	1	-	-	1	1
Computer Engineering Tech	7	5	3	2	3	-	5	7	6	6
Dental Hygiene	25	26	22	25	18	27	18	23	21	9
Electronics Engineering Tech	3	1	2	1	-	-	-	-	-	-
EMT - Paramedic	19	21	22	25	27	17	28	26	26	29
Office Systems Technology	-	2	2	-	-	-	-	-	-	-
Polysomnographic Technology	-	-	1	2	3	5	6	2	4	-
Respiratory Care	23	16	15	17	-	-	-	-	-	-
Sleep Health-Polysom Tech Opt	-	-	-	-	-	-	-	-	-	3
Software Engineering Tech	7	2	3	2	2	-	-	2	9	2
<b>Total</b>	<b>97</b>	<b>81</b>	<b>72</b>	<b>79</b>	<b>53</b>	<b>50</b>	<b>57</b>	<b>60</b>	<b>67</b>	<b>50</b>

## Bachelors

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Allied Health Management	-	-	-	1	2	4	3	2	1	-
Applied Environmental Science	1	-	-	-	-	-	-	-	-	-
Applied Mathematics	-	-	7	1	5	4	7	4	4	5
Applied Psychology	46	42	37	30	36	38	30	40	37	31
Biology	10	6	16	14	11	11	3	4	1	2
Biology-Health Sciences	-	-	-	-	-	-	10	14	20	18
Civil Engineering	23	23	29	28	20	14	23	17	15	25
Clinical Laboratory Science	23	24	24	22	22	35	27	34	49	46
Communication Studies	13	13	9	10	13	8	19	13	4	8
Computer Engineering Tech	15	7	14	8	13	3	4	3	3	3
Dental Hygiene	35	38	45	55	49	54	51	76	62	65
Diagnostic Medical Sonography	21	24	21	27	29	24	19	31	25	24
Echocardiography	6	4	16	9	21	32	31	32	29	35
Electrical Engineering	-	-	-	6	11	9	11	17	17	26
Electronics Engineering Tech	18	17	13	10	18	16	11	10	10	13

**Bachelors**

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Embedded Systems Eng Tech	-	-	-	1	2	2	4	1	5	3
Emergency Medical Services Mgt	-	-	-	-	-	-	-	-	-	1
Environmental Sciences	1	1	3	1	5	5	4	5	11	14
Geomatics	10	8	5	5	1	-	-	-	-	-
Geomatics-option in GIS	-	-	2	1	1	3	3	5	1	2
Geomatics-option in Surveying	-	-	1	11	13	14	10	13	1	12
Health Care Mgmt-Admin Mgmt	-	-	-	-	-	-	-	-	1	2
Health Care Mgmt-Clinical Mgmt	-	-	-	-	-	-	-	-	1	-
Health Sciences	1	3	2	2	2	6	1	1	-	-
Industrial Management	-	-	-	1	-	-	-	-	-	-
Information Technology	4	4	1	2	-	1	-	-	-	-
IT Accounting Option	-	1	2	1	1	2	1	2	-	-
IT Applications Dev Opt	8	5	13	5	6	8	21	12	8	11
IT Bus/Systems Analysis Opt	1	1	4	10	12	6	12	14	13	8
IT Health Informatics Opt	-	-	-	-	2	4	9	6	14	7
Management Information System	12	2	8	3	-	2	-	-	-	-
Manufacturing Engineering Tech	30	15	16	18	18	9	13	5	11	12
Mechanical Engineering	3	3	17	12	11	19	14	27	23	45
Mechanical Engineering Tech	31	19	31	23	24	19	24	18	17	21
Mgmt Info Sys/Mgmt Acc Option	-	3	-	-	-	-	-	-	-	-
Mgmt/Accounting Option	8	4	3	8	4	9	9	12	5	8
Mgmt/Marketing Option	9	7	5	5	7	8	7	4	7	7
Mgmt/Small Bus Mgmt Option	9	11	11	18	8	6	8	12	4	7
Nuclear Medicine Technology	18	18	16	15	16	16	15	14	14	15
Operations Management	8	6	3	15	7	14	16	13	19	18
Optical Engineering	-	-	-	-	-	-	-	-	1	1
Population Health Management	-	-	-	-	-	-	-	-	-	5
Radiologic Science	47	51	50	53	51	50	48	55	45	56
Renewable Energy Engineering	-	-	6	9	29	35	60	35	29	29
Renewable Energy Systems	-	-	1	-	-	-	-	-	-	-
Respiratory Care	5	8	6	7	10	21	21	21	27	22
Software Engineering Tech	44	36	27	27	31	29	41	31	35	47
System Engr & Technical Mgmt	-	-	-	-	-	-	-	-	-	3
Technology and Management	-	-	-	-	-	-	1	1	11	8
Ultrasound/Diag Med Sono Opt	1	-	-	-	-	-	-	-	-	-
Ultrasound/Vascular Option	1	-	-	-	-	-	-	-	-	-
Vascular Technology	30	30	26	23	23	25	21	28	19	24
<b>Total</b>	<b>492</b>	<b>434</b>	<b>490</b>	<b>497</b>	<b>534</b>	<b>565</b>	<b>612</b>	<b>632</b>	<b>599</b>	<b>689</b>

**Masters**

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Civil Engineering	-	-	-	-	-	-	-	-	2	6
Manufacturing Engineering Tech	3	4	7	2	6	8	12	4	8	9
Renewable Energy Engineering	-	-	-	-	-	-	-	1	11	9
<b>Total</b>	<b>3</b>	<b>4</b>	<b>7</b>	<b>2</b>	<b>6</b>	<b>8</b>	<b>12</b>	<b>5</b>	<b>21</b>	<b>24</b>

**Grand Total**

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
<b>Grand Total</b>	<b>593</b>	<b>521</b>	<b>574</b>	<b>594</b>	<b>610</b>	<b>635</b>	<b>699</b>	<b>721</b>	<b>694</b>	<b>774</b>



# Attachment 5\_Grad\_Data\_First\_Destination\_3\_Year\_History\_by\_Major

a=2013/2014/2015 combined	% Employed		% Continuing Ed		% Looking for Work		% Not Looking		Success Rate		Median Salary	
b=2014/2015/2016 combined	a	b	a	b	a	b	a	b	a	b	a	b
<b>% among those reporting outcomes</b>	83.3	<b>87.6</b>	6.1	<b>6.7</b>	9.4	<b>4.9</b>	1.2	<b>0.8</b>	90.6	<b>95.1</b>	\$ 54,000	<b>\$ 56,000</b>
Biology-Health Sciences	36	38	60	62	4	0	0	0	96	100	\$ 20,750	\$ 33,000
Civil Engineering	83	92	11	8	6	0	0	0	94	100	\$ 50,000	\$ 51,540
Communication Studies	60	67	13	11	27	22	0	0	73	78	\$ 27,000	\$ 28,500
Computer Engineering Technology	89	93	0	0	0	0	11	7	100	100	\$ 63,000	\$ 64,000
Dental Hygiene	86	96	4	1	9	2	1	1	91	98	\$ 53,000	\$ 57,500
Diagnostic Medical Sonography	97	98	3	2	0	0	0	0	100	100	\$ 60,000	\$ 60,868
Echocardiography	95	93	0	3	5	3	0	0	95	97	\$ 60,500	\$ 64,000
Electrical Engineering	87	83	0	10	13	7	0	0	87	93	\$ 60,000	\$ 60,000
Electronics Engineering Technology	73	82	7	5	20	14	0	0	80	86	\$ 54,250	\$ 66,750
Embedded Systems Engineering Tech	80	83	0	17	20	0	0	0	80	100	\$ 58,250	\$ 60,000
EMT/Paramedic	100	100	0	0	0	0	0	0	100	100	\$ 48,000	\$ 52,000
Environmental Sciences	67	76	11	18	22	6	0	0	78	94	\$ 39,800	\$ 40,000
Geomatics: GIS	100	100	0	0	0	0	0	0	100	100	\$ 42,000	\$ 42,000
Geomatics: Surveying	69	64	0	9	31	27	0	0	69	77	\$ 40,500	\$ 43,000
Health Care Management	75	80	25	20	0	0	0	0	100	100	\$ 52,000	na
Health Informatics	75	79	10	11	15	11	0	0	85	89	\$ 53,000	\$ 52,000
Information Technology	84	88	0	2	16	10	0	0	84	90	\$ 55,000	\$ 55,000
Management: Accounting	78	83	6	6	17	11	0	0	83	89	\$ 32,000	\$ 32,250
Management: SmBus/Entrepreneurs	77	87	15	13	8	0	0	0	92	100	\$ 33,000	\$ 40,900
Management: Marketing	82	93	0	0	18	7	0	0	82	93	\$ 39,250	\$ 48,500
Manufacturing Engineering Technolo	77	85	5	4	13	11	0	0	87	89	\$ 62,500	\$ 60,000
Mathematics, Applied	60	71	20	29	0	0	20	0	100	100	na	na
Mechanical Engineering	71	82	12	9	10	5	7	4	90	95	\$ 60,000	\$ 60,000
Mechanical Engineering Technology	86	100	7	0	7	0	0	0	93	100	\$ 60,000	\$ 62,500
Medical Laboratory Science	100	100	0	0	0	0	0	0	100	100	\$ 53,750	\$ 55,000
Nuclear Medicine Technology	87	86	0	3	13	11	0	0	87	89	\$ 57,000	\$ 57,846
Nursing												
Operations Management	83	83	11	14	6	3	0	0	94	97	\$ 63,000	\$ 63,000
Polysomnographic Technology	83	100	0	0	17	0	0	0	83	100	\$ 50,000	\$ 40,500
Population Health Management	na	75	na	25	na	0	na	0	na	100	na	\$ 42,000
Psychology, Applied	54	66	24	26	15	5	6	3	85	95	\$ 30,000	\$ 30,000
Radiologic Science	92	97	1	0	6	3	1	1	94	97	\$ 47,000	\$ 50,000
Renewable Energy Engineering	76	83	6	8	18	9	0	0	82	91	\$ 57,000	\$ 56,500
Respiratory Care	97	98	0	0	3	2	0	0	97	98	\$ 56,000	\$ 56,000
Software Engineering Technology	93	91	0	0	3	7	3	3	97	93	\$ 62,250	\$ 66,750
Technology and Management	100	88	0	0	0	12	0	0	100	88	na	na
Vascular Technology	92	91	0	0	8	9	0	0	92	91	\$ 64,602	\$ 62,000

## Additional Notes:

Numbers may not add to 100 due to rounding

na=not reported, or not available due to small sample size

### METHODOLOGY

Sample Frame 2016: 781 degrees awarded per FAST

Survey Response Rate: 49% Total Knowledge Rate 2016: 75%

Sources: Data collected from a variety of sources. Below, for 2016, in chronological order:

Grad Fair paper survey

Faculty senior exit survey

Career Services survey

Career Services followup with non-respondents

Faculty information from their contact with students

LinkedIn Profiles

Salaries of \$2,500 and below and \$250,000 and above were deleted.

Students with dual majors are included under each major

Known Outcomes 2016: 587

Known Outcomes 2013/2014/2015 combined N=1008

Known Outcomes 2014/2015/2016 combined N=1244

Term Name	Winter 2017 01/09/17-03/24/17
Course Code	CST320
Section Code	01
Assignment Name	ABET B
Created By	Technology B.S., Software Engineering ( OIT-BSOF )
Assessment Document Title	ABET B
Showing Deleted Students	No



Rubric View: ABET B

	4 Highly Proficient (4 pts)	3 Proficient (3 pts)	2 Some Proficiency (2 pts)	1 Limited or no Proficiency (1 pts)	Mean	Mode	Stdev
an ability to use a knowledge of mathematics, science, engineering, and technology to engineering technology problems in order to select correct principles and applied procedures or methodologies to solve engineering problems	23	0	1	1	3.800	4.000	0.693
an ability to apply principles and applied procedures or methodologies to solve engineering problems	19	2	3	1	3.560	4.000	0.852
an ability to use a knowledge of mathematics, science, engineering, and technology to engineering technology problems in order to select correct principles and applied procedures or methodologies to solve engineering problems <i>std_text</i>							
an ability to apply principles and applied procedures or methodologies to solve engineering problems <i>std_text</i>							
	4 Highly Proficient	3 Proficient	2 Some Proficiency	1 Limited or no Proficiency			

Roster View: ABET B

Student	Assessor	an ability to use a knowledge of mathematics, science, engineering, and technology to engineering technology problems in order to select correct principles and applied procedures or methodologies to solve engineering problems	an ability to apply principles and applied procedures or methodologies to solve engineering problems
Phil Howard		4 Highly Proficient	4 Highly Proficient
Phil Howard		4 Highly Proficient	4 Highly Proficient
Phil Howard		4 Highly Proficient	2 Some Proficiency
Phil Howard		4 Highly Proficient	4 Highly Proficient
Phil Howard		1 Limited or no Proficienc...	2 Some Proficiency
Matthew	Phil		

Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	2 Some Proficiency
Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	2 Some Proficiency	1 Limited or no Proficiency...

Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	3 Proficient
Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	3 Proficient
Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	4 Highly Proficient

Phil Howard	4 Highly Proficient	4 Highly Proficient
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Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	4 Highly Proficient

Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	4 Highly Proficient

Term Name	Winter 2017 01/09/17-03/24/17
Course Code	CST320
Section Code	01
Assignment Name	ABET B
Created By	Technology B.S., Software Engineering ( OIT-BSOF )
Assessment Document Title	ABET B
Showing Deleted Students	No

Rubric View: ABET B

	4 Highly Proficient (4 pts)	3 Proficient (3 pts)	2 Some Proficiency (2 pts)	1 Limited or no Proficiency (1 pts)	Mean	Mode	Stdev
an ability to use a knowledge of mathematics, science, engineering, and technology to engineering technology problems in order to select correct principles and applied procedures or methodologies to solve engineering problems	25	0	0	0	4.000	4.000	0.000
an ability to apply principles and applied procedures or methodologies to solve engineering problems	10	9	6	0	3.160	4.000	0.784
an ability to use a knowledge of mathematics, science, engineering, and technology to engineering technology problems in order to select correct principles and applied procedures or methodologies to solve engineering problems <i>std_text</i>	25 (100.00%)						
an ability to apply principles and applied procedures or methodologies to solve engineering problems <i>std_text</i>	<div style="display: flex; justify-content: space-between;"> <span>10 (40.00%)</span> <span>9 (36.00%)</span> <span>6 (24.00%)</span> </div>						
	■ 4 Highly Proficient	■ 3 Proficient	■ 2 Some Proficiency	■ 1 Limited or no Proficiency			

Roster View: ABET B

Student	Assessor	an ability to use a knowledge of mathematics, science, engineering, and technology to engineering technology problems in order to select correct principles and applied procedures or methodologies to solve engineering problems	an ability to apply principles and applied procedures or methodologies to solve engineering problems
Phil Howard		4 Highly Proficient	3 Proficient
Phil Howard		4 Highly Proficient	4 Highly Proficient
Phil Howard		4 Highly Proficient	2 Some Proficiency
Phil Howard		4 Highly Proficient	4 Highly Proficient
Phil Howard		4 Highly Proficient	2 Some Proficiency

Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	2 Some Proficiency
Phil Howard	4 Highly Proficient	3 Proficient
Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	2 Some Proficiency

Phil Howard	4 Highly Proficient	3 Proficient
Phil Howard	4 Highly Proficient	3 Proficient
Phil Howard	4 Highly Proficient	2 Some Proficiency
Phil Howard	4 Highly Proficient	2 Some Proficiency
Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	3 Proficient
Phil Howard	4 Highly Proficient	3 Proficient

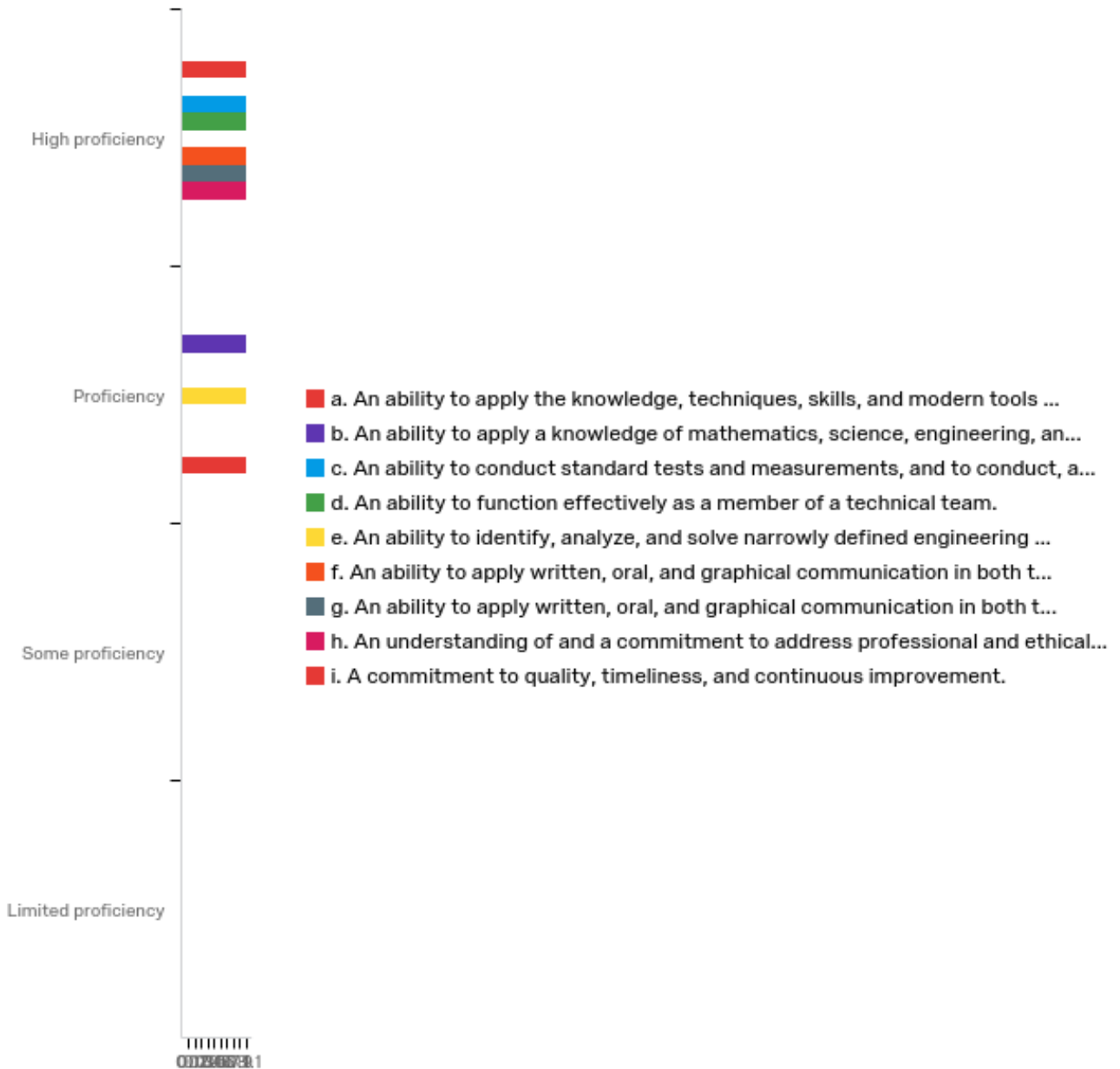
Phil Howard	4 Highly Proficient	3 Proficient
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Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	3 Proficient
Phil Howard	4 Highly Proficient	4 Highly Proficient

Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	4 Highly Proficient
Phil Howard	4 Highly Proficient	3 Proficient

### Q39 - Program Student Learning Outcomes - Computer Engineering Technology

A.E. Please rate your proficiency in the following areas:



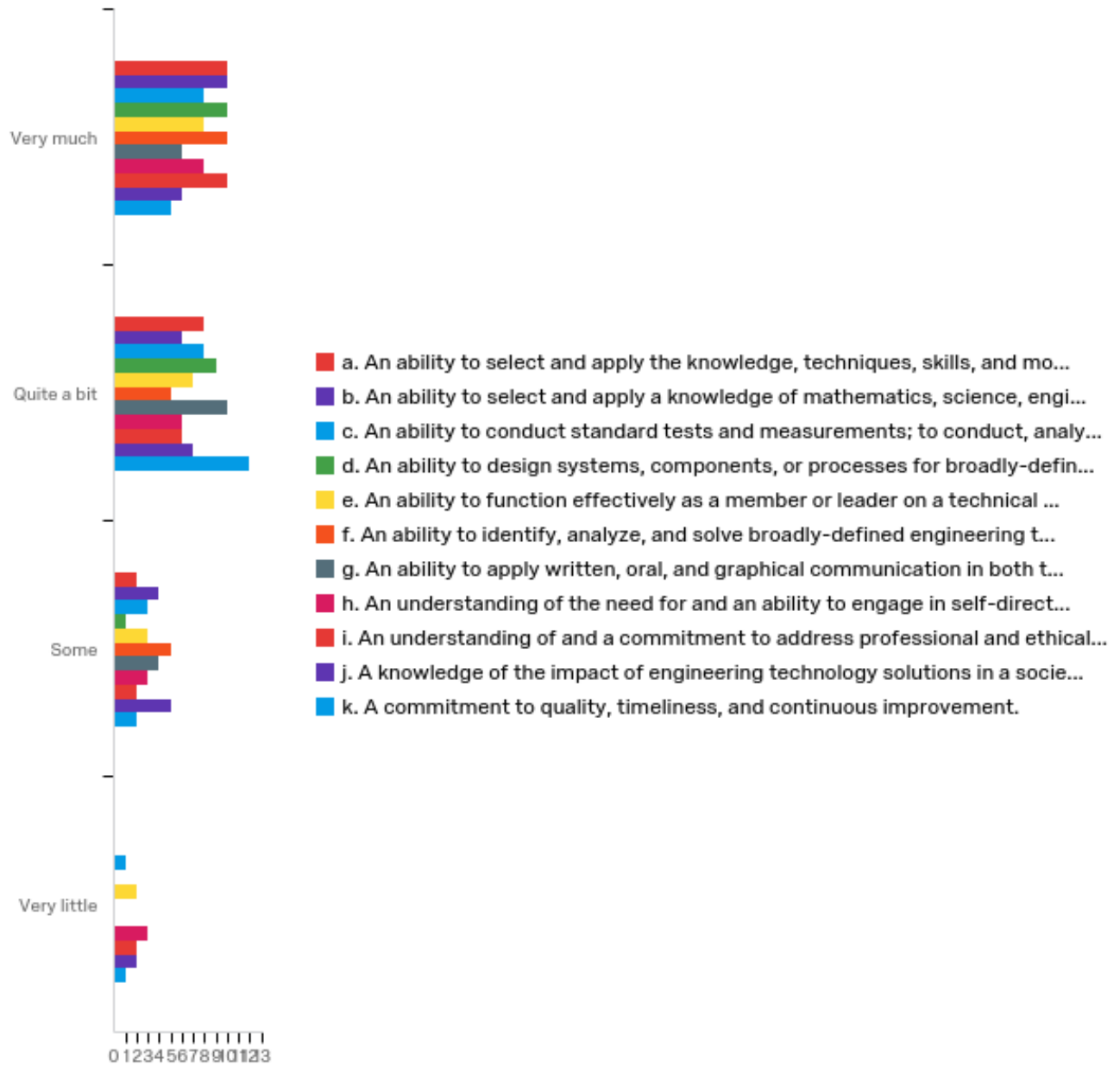
#	Question	High proficiency	Proficiency	Some proficiency	Limited proficiency	Total				
23	a. An ability to apply the knowledge, techniques, skills, and modern tools of	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1



	the discipline to narrowly defined engineering technology activities.									
24	b. An ability to apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require limited application of principles but extensive practical knowledge.	0.00%	0	100.00%	1	0.00%	0	0.00%	0	1
25	c. An ability to conduct standard tests and measurements, and to conduct, analyze, and interpret experiments.	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1
26	d. An ability to function effectively as a member of a technical team.	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1
27	e. An ability to identify, analyze, and solve narrowly defined engineering technology problems.	0.00%	0	100.00%	1	0.00%	0	0.00%	0	1
28	f. An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature.	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1

29	g. An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature.	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1
30	h. An understanding of and a commitment to address professional and ethical responsibilities, including a respect for diversity.	100.00%	1	0.00%	0	0.00%	0	0.00%	0	1
31	i. A commitment to quality, timeliness, and continuous improvement.	0.00%	0	100.00%	1	0.00%	0	0.00%	0	1

**Q69 - Program Student Learning Outcomes - Software Engineering Technology  
B.S. 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
76	a. An ability to select and apply the knowledge, techniques, skills, and modern tools of the discipline to broadly-defined engineering technology activities.	50.00% 10	40.00% 8	10.00% 2	0.00% 0	20

77	b. An ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies.	50.00%	10	30.00%	6	20.00%	4	0.00%	0	20
78	c. An ability to conduct standard tests and measurements; to conduct, analyze, and interpret experiments; and to apply experimental results to improve processes.	40.00%	8	40.00%	8	15.00%	3	5.00%	1	20
79	d. An ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives.	50.00%	10	45.00%	9	5.00%	1	0.00%	0	20
80	e. An ability to function effectively as a member or leader on a technical team.	40.00%	8	35.00%	7	15.00%	3	10.00%	2	20
81	f. An ability to identify, analyze, and solve broadly-defined engineering technology problems.	50.00%	10	25.00%	5	25.00%	5	0.00%	0	20
82	g. An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature.	30.00%	6	50.00%	10	20.00%	4	0.00%	0	20
83	h. An understanding of the need for and an ability to engage in self-directed continuing professional development.	40.00%	8	30.00%	6	15.00%	3	15.00%	3	20
84	i. An understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity.	50.00%	10	30.00%	6	10.00%	2	10.00%	2	20
85	j. A knowledge of the impact of engineering technology solutions in a societal and global context.	30.00%	6	35.00%	7	25.00%	5	10.00%	2	20

86	k. A commitment to quality, timeliness, and continuous improvement.	25.00%	5	60.00%	12	10.00%	2	5.00%	1	20
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<b>Term Name</b>	Spring 2017 04/03/17-06/16/17
<b>Course Code</b>	CST336
<b>Section Code</b>	01
<b>Assignment Name</b>	ABET D: Design
<b>Created By</b>	Technology B.S., Software Engineering ( OIT-BSOF )
<b>Assessment Document Title</b>	ABET D: Designing a System, Component or Process
<b>Showing Deleted Students</b>	No

### Rubric View: ABET D: Designing a System, Component or Process

	High Proficiency (4 pts)	Proficiency (3 pts)	Deveoping Proficiency (2 pts)	Limited/No Proficiency (1 pts)	Mean	Mode	Stdev
Identify critical elements of the design	13	13	3	0	3.345	3.000	0.658
Create a detailed design specification addressing each of the identified critical design elements	3	23	1	2	2.931	3.000	0.640
Generate a implementable solution for each of the identified critical design elements	10	16	3	0	3.241	3.000	0.625
Identify critical elements of the design <i>std_text</i>							
Create a detailed design specification addressing each of the identified critical design elements <i>std_text</i>							
Generate a implementable solution for each of the identified critical design elements <i>std_text</i>							
	High Proficiency	Proficiency	Deveoping Proficiency	Limited/No Proficiency			

### Roster View: ABET D: Designing a System, Component or Process

Student	Assessor	Identify critical elements of the design	Create a detailed design specification addressing each of the identified critical design elements	Generate a implementable solution for each of the identified critical design elements
	Phil Howard	High Proficiency	Proficiency	Proficiency
	Phil Howard	High Proficiency	Proficiency	High Proficiency
	Phil Howard	Proficiency	Proficiency	Proficiency
	Phil Howard	Proficiency	Proficiency	High Proficiency
	Phil Howard	Proficiency	Proficiency	Proficiency
	Phil Howard	High Proficiency	High Proficiency	High Proficiency
	Phil Howard	High Proficiency	High Proficiency	High Proficiency
	Phil Howard	High Proficiency	Proficiency	Proficiency

Phil Howard	Proficiency	Proficiency	High Proficiency
Phil Howard	Proficiency	Proficiency	Proficiency
Phil Howard	High Proficiency	Proficiency	High Proficiency
Phil Howard	High Proficiency	Proficiency	High Proficiency
Phil Howard	Proficiency	Proficiency	Proficiency
Phil Howard	Proficiency	Proficiency	Proficiency
Phil Howard	High Proficiency	Proficiency	High Proficiency
Phil Howard	Deveoping Proficiency	Limited/No Proficiency	Deveoping Proficiency
Phil Howard	Proficiency	Proficiency	Proficiency
Phil Howard	High Proficiency	Proficiency	Proficiency
Phil Howard	Deveoping Proficiency	Deveoping Proficiency	Deveoping Proficiency
Phil Howard	Proficiency	Proficiency	Proficiency
Phil Howard	Deveoping Proficiency	Limited/No Proficiency	Deveoping Proficiency
Phil Howard	Proficiency	Proficiency	Proficiency
Phil Howard	High Proficiency	Proficiency	High Proficiency
Phil Howard	Proficiency	Proficiency	Proficiency
Phil Howard	Proficiency	Proficiency	Proficiency
Phil Howard	High Proficiency	Proficiency	Proficiency
Phil Howard	Proficiency	Proficiency	Proficiency
Phil Howard	High Proficiency	High Proficiency	High Proficiency
Phil Howard	High Proficiency	Proficiency	Proficiency



<b>Term Name</b>	Spring 2017 04/03/17-06/16/17
<b>Course Code</b>	CST432
<b>Section Code</b>	01
<b>Assignment Name</b>	ABET D: Design
<b>Created By</b>	Technology B.S., Software Engineering ( OIT-BSOF )
<b>Assessment Document Title</b>	ABET D: Designing a System, Component or Process
<b>Showing Deleted Students</b>	No

### Rubric View: ABET D: Designing a System, Component or Process

	High Proficiency (4 pts)	Proficiency (3 pts)	Deveoping Proficiency (2 pts)	Limited/No Proficiency (1 pts)	Mean	Mode	Stdev
Identify critical elements of the design	11	3	0	0	3.786	4.000	0.410
Create a detailed design specification addressing each of the identified critical design elements	10	3	1	0	3.643	4.000	0.610
Generate a implementable solution for each of the identified critical design elements	7	5	1	0	3.462	4.000	0.634
Identify critical elements of the design <i>std_text</i>							
Create a detailed design specification addressing each of the identified critical design elements <i>std_text</i>							
Generate a implementable solution for each of the identified critical design elements <i>std_text</i>							

■ High Proficiency   
 ■ Proficiency   
 ■ Deveoping Proficiency   
 ■ Limited/No Proficiency

### Roster View: ABET D: Designing a System, Component or Process

Student	Assessor	Identify critical elements of the design	Create a detailed design specification addressing each of the identified critical design elements	Generate a implementable solution for each of the identified critical design elements
	Phil Howard	Proficiency	Deveoping Proficiency	
	Phil Howard	High Proficiency	High Proficiency	High Proficiency
	Phil Howard	High Proficiency	High Proficiency	High Proficiency
	Phil Howard	High Proficiency	Proficiency	Deveoping Proficiency
	Phil Howard	High Proficiency	High Proficiency	High Proficiency
	Phil Howard	High Proficiency	High Proficiency	Proficiency
	Phil Howard	High Proficiency	High Proficiency	Proficiency
	Phil Howard	High Proficiency	High Proficiency	High Proficiency

Phil Howard	Proficiency	Proficiency	Proficiency
Phil Howard	High Proficiency	High Proficiency	High Proficiency
Phil Howard	High Proficiency	High Proficiency	Proficiency
Phil Howard	High Proficiency	High Proficiency	High Proficiency
Phil Howard	High Proficiency	High Proficiency	High Proficiency
Phil Howard	Proficiency	Proficiency	Proficiency

<b>Term Name</b>	Spring 2017 04/03/17-06/16/17
<b>Course Code</b>	CST432
<b>Section Code</b>	03
<b>Assignment Name</b>	ABET D: Design
<b>Created By</b>	Technology B.S., Software Engineering ( OIT-BSOF )
<b>Assessment Document Title</b>	ABET D: Designing a System, Component or Process
<b>Showing Deleted Students</b>	No

Rubric View: ABET D: Designing a System, Component or Process

	High Proficiency (4 pts)	Proficiency (3 pts)	Deveoping Proficiency (2 pts)	Limited/No Proficiency (1 pts)	Mean	Mode	Stdev
Identify critical elements of the design	5	2	1	0	3.500	4.000	0.707
Create a detailed design specification addressing each of the identified critical design elements	5	2	1	0	3.500	4.000	0.707
Generate a implementable solution for each of the identified critical design elements	3	4	1	0	3.250	3.000	0.661
Identify critical elements of the design <i>std_text</i>	5 (62.50%)			2 (25.00%)	1 (12.50%)		
Create a detailed design specification addressing each of the identified critical design elements <i>std_text</i>	5 (62.50%)			2 (25.00%)	1 (12.50%)		
Generate a implementable solution for each of the identified critical design elements <i>std_text</i>	3 (37.50%)		4 (50.00%)	1 (12.50%)			

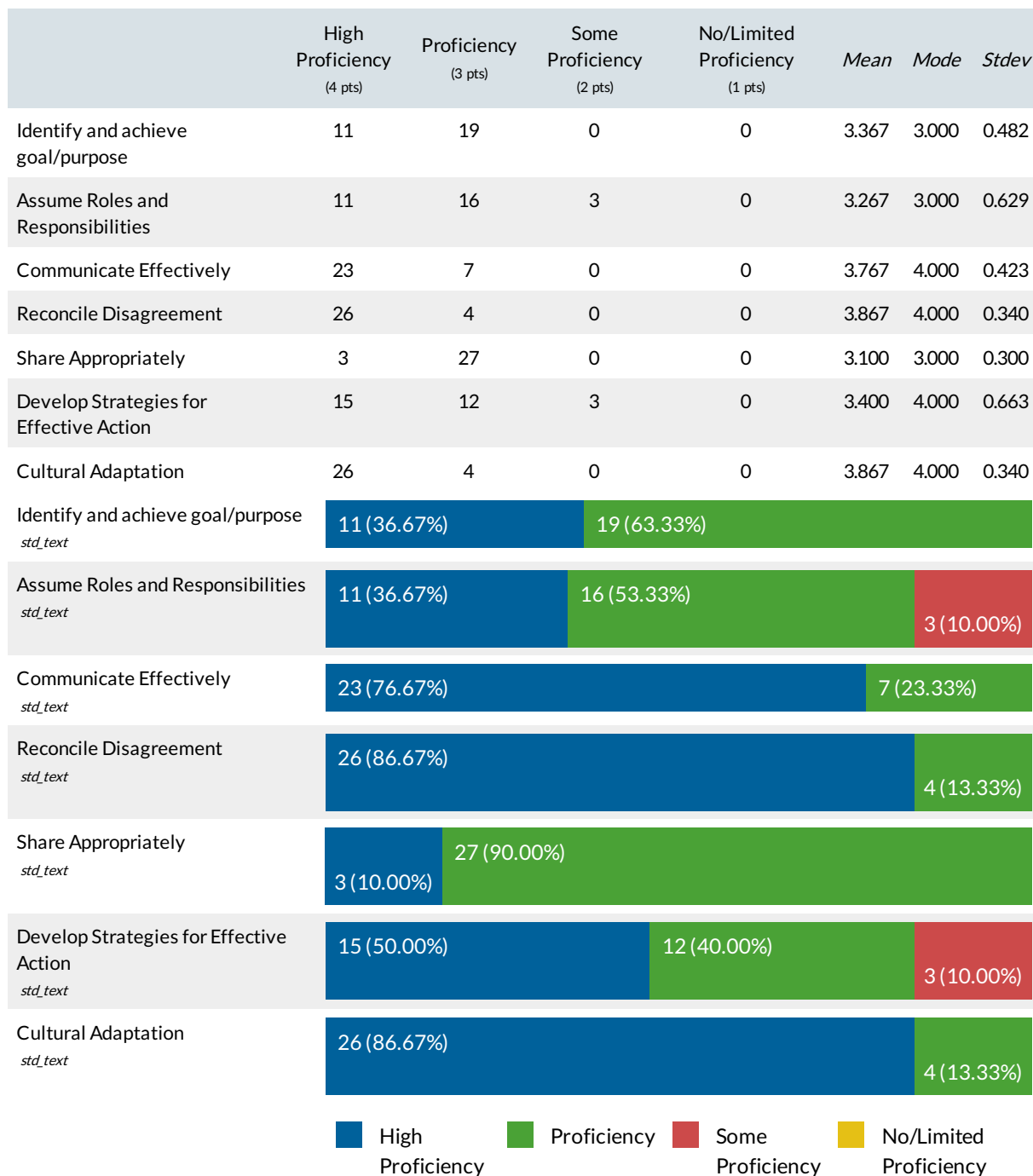
High Proficiency
  Proficiency
  Deveoping Proficiency
  Limited/No Proficiency

Roster View: ABET D: Designing a System, Component or Process

Student	Assessor	Identify critical elements of the design	Create a detailed design specification addressing each of the identified critical design elements	Generate a implementable solution for each of the identified critical design elements
	Phil Howard	Deveoping Proficiency	Deveoping Proficiency	Deveoping Proficiency
	Phil Howard	High Proficiency	High Proficiency	High Proficiency
	Phil Howard	High Proficiency	High Proficiency	High Proficiency
	Phil Howard	Proficiency	Proficiency	Proficiency
	Phil Howard	Proficiency	Proficiency	Proficiency
	Phil Howard	High Proficiency	High Proficiency	Proficiency
	Phil Howard	High Proficiency	High Proficiency	High Proficiency
	Phil Howard	High Proficiency	High Proficiency	Proficiency

<b>Term Name</b>	Fall 2016
<b>Course Code</b>	CST316
<b>Section Code</b>	01
<b>Assignment Name</b>	Group work Fall
<b>Created By</b>	Technology B.S. , Software Engineering ( OIT-BSOF )
<b>Assessment Document Title</b>	Team and Group 2016-2017
<b>Showing Deleted Students</b>	No

### Rubric View: Team and Group Work 2016-2017



### Roster View: Team and Group Work 2016-2017

Student	Assessor	Identify and achieve goal/purpose	Assume Roles and Responsibilities	Communicate Effectively	Reconcile Disagreement	Share Appropriately	Develop Strategies for Effective Action	Cultural Adaptation
	Phil Howard	Proficiency	Proficiency	High Proficiency	Proficiency	Proficiency	Proficiency	Proficiency
	Phil Howard	Proficiency	High Proficiency	High Proficiency	High Proficiency	Proficiency	Proficiency	High Proficiency

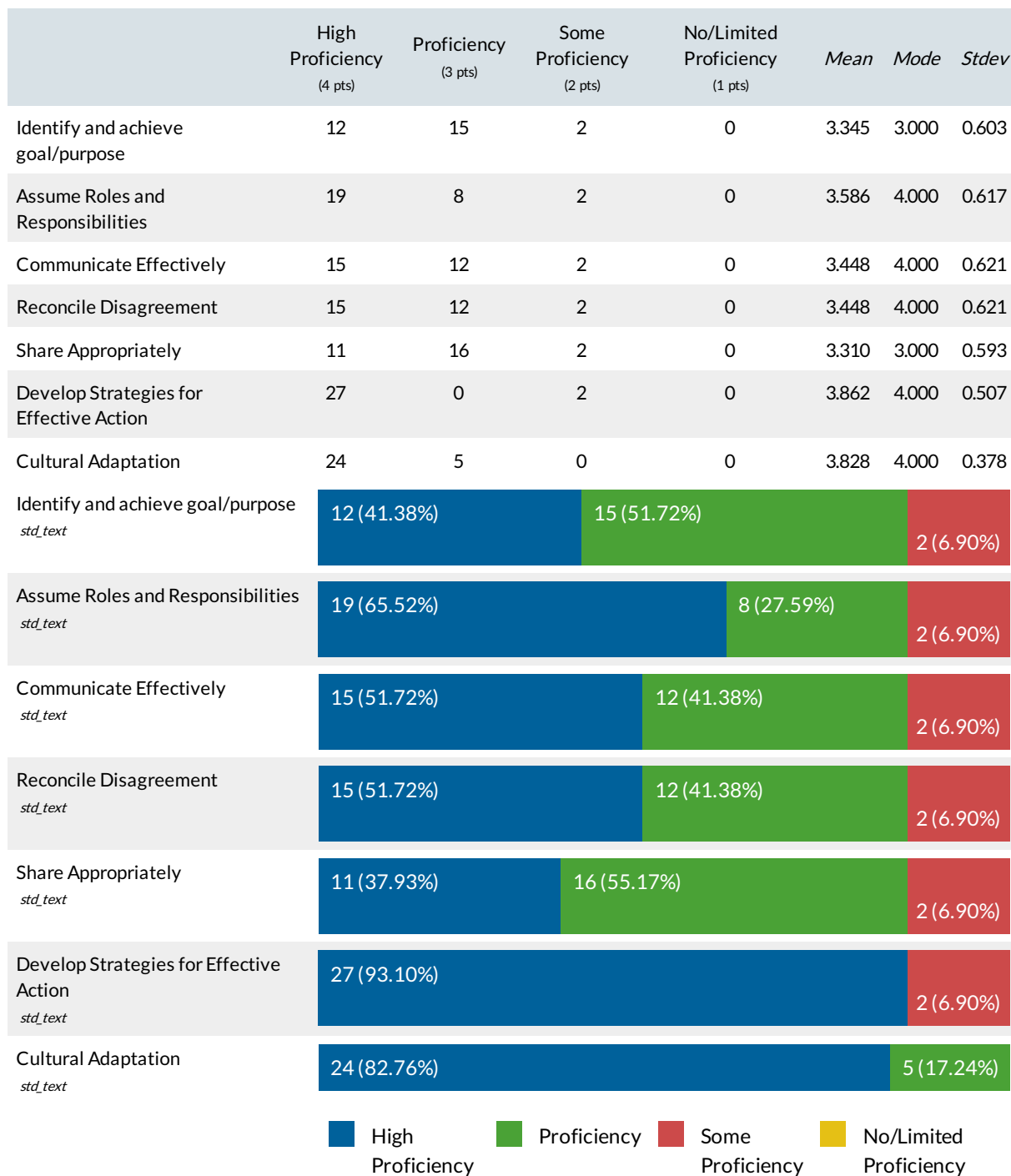




Phil Howard	High Proficiency	High Proficiency	High Proficiency	High Proficiency	Proficiency	High Proficiency	High Proficiency
Phil Howard	High Proficiency	Proficiency	Proficiency	High Proficiency	Proficiency	High Proficiency	High Proficiency
Phil Howard	Proficiency	Proficiency	High Proficiency	High Proficiency	Proficiency	High Proficiency	High Proficiency
Phil Howard	High Proficiency	Proficiency	Proficiency	High Proficiency	Proficiency	High Proficiency	High Proficiency
Phil Howard	Proficiency	Proficiency	High Proficiency	High Proficiency	Proficiency	High Proficiency	High Proficiency

<b>Term Name</b>	Spring 2017 04/03/17-06/16/17
<b>Course Code</b>	CST336
<b>Section Code</b>	01
<b>Assignment Name</b>	Team and Group Work: Spring
<b>Created By</b>	Technology B.S. , Software Engineering ( OIT-BSOF )
<b>Assessment Document Title</b>	Team and Group 2016-2017
<b>Showing Deleted Students</b>	No

### Rubric View: Team and Group Work 2016-2017



### Roster View: Team and Group Work 2016-2017

Student	Assessor	Identify and achieve goal/purpose	Assume Roles and Responsibilities	Communicate Effectively	Reconcile Disagreement	Share Appropriately	Develop Strategies for Effective Action	Cultural Adaptation
	Phil Howard	Proficiency	High Proficiency	Proficiency	Proficiency	High Proficiency	High Proficiency	High Proficiency
	Phil	High	High	High	Proficiency	Proficiency	High	High



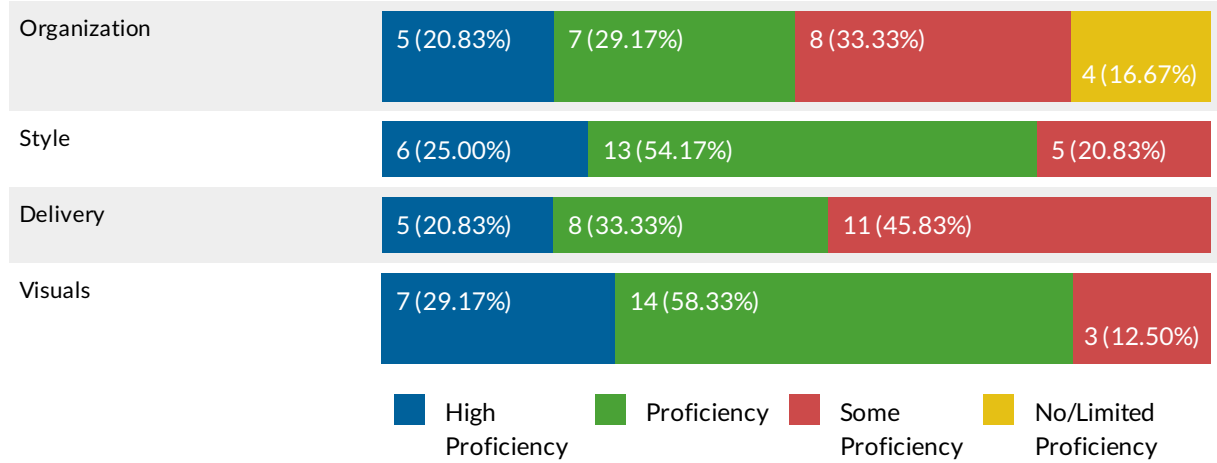
Howard	Proficiency	Proficiency	Proficiency	Proficiency	Proficiency	Proficiency	Proficiency
Phil Howard	High Proficiency	Proficiency	Proficiency	Proficiency	Proficiency	High Proficiency	High Proficiency
Phil Howard	Proficiency	Proficiency	Proficiency	High Proficiency	Proficiency	High Proficiency	Proficiency
Phil Howard	High Proficiency	Proficiency	Proficiency	Proficiency	Proficiency	High Proficiency	High Proficiency
Phil Howard	Proficiency	Proficiency	Proficiency	High Proficiency	Proficiency	High Proficiency	Proficiency

<b>Term Name</b>	Spring 2017 04/03/17-06/16/17
<b>Course Code</b>	CST223
<b>Section Code</b>	01
<b>Assignment Name</b>	Final Project Presentation
<b>Created By</b>	Technology B.S., Software Engineering ( OIT-BSOF )
<b>Assessment Document Title</b>	OIT Public Speaking Rubric
<b>Showing Deleted Students</b>	No

Rubric View: OIT Public Speaking Rubric

	High Proficiency (4 pts)	Proficiency (3 pts)	Some Proficiency (2 pts)	No/Limited Proficiency (1 pts)	Mean	Mode	Stdev
Content	0	0	0	0	0.000	NA	0.000
Organization	5	7	8	4	2.542	2.000	0.999
Style	6	13	5	0	3.042	3.000	0.676
Delivery	5	8	11	0	2.750	2.000	0.777
Visuals	7	14	3	0	3.167	3.000	0.624

Content



Roster View: OIT Public Speaking Rubric

Student	Assessor	Content	Organization	Style	Delivery	Visuals
	Phil Howard		High Proficiency	High Proficiency	High Proficiency	High Proficiency
	Phil Howard		Some Proficiency	Proficiency	Some Proficiency	Some Proficiency
	Phil Howard		Some Proficiency	Proficiency	Some Proficiency	Proficiency
	Phil Howard		Proficiency	Proficiency	Proficiency	Some Proficiency
	Phil Howard		Some Proficiency	Proficiency	Some Proficiency	Some Proficiency
	Phil Howard		Proficiency	Proficiency	Proficiency	Proficiency
	Phil Howard		Some Proficiency	Some Proficiency	Some Proficiency	Proficiency

Phil Howard		Proficiency	Proficiency	Proficiency	Proficiency
Phil Howard		Some Proficiency	Proficiency	Some Proficiency	Proficiency
Phil Howard		No/Limited Proficiency	High Proficiency	Some Proficiency	Proficiency
Phil Howard		Some Proficiency	Proficiency	Proficiency	High Proficiency
Phil Howard		Proficiency	Proficiency	High Proficiency	Proficiency
Phil Howard		No/Limited Proficiency	High Proficiency	Some Proficiency	Proficiency
Phil Howard		Proficiency	Proficiency	Proficiency	Proficiency
Phil Howard		High Proficiency	Proficiency	Some Proficiency	High Proficiency
Phil Howard		High Proficiency	High Proficiency	High Proficiency	High Proficiency
Phil Howard		Proficiency	Some Proficiency	Proficiency	Proficiency
Phil Howard		No/Limited Proficiency	Some Proficiency	Some Proficiency	Proficiency
Phil Howard		No/Limited Proficiency	Some Proficiency	Some Proficiency	Proficiency
Phil Howard		High Proficiency	High Proficiency	High Proficiency	High Proficiency
Phil Howard		Proficiency	Proficiency	Proficiency	Proficiency
Phil Howard		Some Proficiency	Some Proficiency	Some Proficiency	Proficiency
Phil Howard		High Proficiency	High Proficiency	High Proficiency	High Proficiency
Phil Howard		Some Proficiency	Proficiency	Proficiency	High Proficiency



Student	Purpose and Audience	Focus and Organization	Support and Documentation	Style and Conventions	Visual Communication	Justification
Student 1	3	3	3	4	N/A	4
Student 2	3	3	3	4	N/A	4
Student 3	4	4	4	4	N/A	4
Student 4	3	2	2	3	N/A	3
Student 5	3	3	3	4	N/A	4
Student 6	4	4	4	4	N/A	4
Student 7	4	4	4	4	N/A	4
Student 8	4	4	4	4	N/A	4
Student 9	4	4	4	4	N/A	4
Student 10	4	4	4	4	N/A	4
Student 11	3	3	3	3	N/A	4
Student 12	4	4	4	4	N/A	4
Student 13	4	4	4	4	N/A	4
Student 14	4	4	4	4	N/A	4
Student 15	4	4	4	4	N/A	4
Student 16	2	2	2	2	N/A	3
Student 17	4	4	4	4	N/A	4
Student 18	4	4	4	4	N/A	4
Student 19	0	0	0	0	N/A	0
Student 20	2	2	2	3	N/A	3
Student 21	3	3	3	3	N/A	3
Student 22	3	3	3	3	N/A	3
Student 23	3	3	3	4	N/A	4
Student 24	3	3	3	4	N/A	4
Student 25	3	3	3	3	N/A	3
Student 26	4	4	4	4	N/A	4
Student 27	3	3	3	3	N/A	3
Student 28	3	3	3	3	N/A	3
Student 29	0	0	0	0	N/A	0
Student 30	4	4	4	4	N/A	4
Student 31	4	4	4	4	N/A	4

Summary 3.225806452 3.193548387 3.193548387 3.419354839 #DIV/0! 3.483870968

Student	Purpose and Audience	Focus and Organization	Support and Documentation	Style and Conventions	Visual Communication	Justification
Student 1	2	2	2	2	2	2
Student 2	2	2	2	2	2	2
Student 3	4	4	4	4	4	4
Student 4	4	4	4	4	4	4
Student 5	4	4	4	4	4	4
Student 6	4	4	4	4	4	4
Student 7	4	4	4	4	4	4
Student 8	4	4	4	4	4	4
Student 9	4	4	4	4	4	4
Student 10	3	3	3	3	2	4
Student 11	3	3	3	3	2	3
Student 12	2	2	2	2	2	2
Student 13	4	4	4	4	4	4
Student 14	4	4	4	4	4	4
Student 15	4	4	4	4	1	4
Student 16	4	4	4	4	4	4
Student 17	4	4	4	4	4	4
Student 18	4	4	4	4	4	4
Student 19	4	3	4	4	4	4
Student 20	4	3	4	4	4	4
Student 21	4	4	4	4	4	4
Student 22	3	3	3	3	3	3

summary

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<b>Term Name</b>	Spring 2017 04/03/17-06/16/17
<b>Course Code</b>	CST336
<b>Section Code</b>	01
<b>Assignment Name</b>	Independent Learning
<b>Created By</b>	Technology B.S., Software Engineering ( OIT-BSOF )
<b>Assessment Document Title</b>	ABET H: Life-long learning
<b>Showing Deleted Students</b>	No

### Rubric View: ABET H: Self-Directed Professional Development

	High Proficiency (4 pts)	Proficiency (3 pts)	Some Proficiency (2 pts)	Limited/No Proficiency (1 pts)	Mean	Mode	Stdev
Lieflong learning	0	0	0	0	0.000	NA	0.000
Professional Development	0	0	0	0	0.000	NA	0.000
Short and long-term career plans	0	0	0	0	0.000	NA	0.000
Independent Learning	17	8	4	0	3.448	4.000	0.723

Lieflong learning

*std\_text*

Professional Development

*std\_text*

Short and long-term career plans

*std\_text*

Independent Learning

*std\_text*



### Roster View: ABET H: Self-Directed Professional Development

Student	Assessor	Lieflong learning	Professional Development	Short and long-term career plans	Independent Learning
	Phil Howard				High Proficiency
	Phil Howard				High Proficiency
	Phil Howard				Some Proficiency
	Phil Howard				High Proficiency
	Phil Howard				Proficiency
	Phil Howard				High Proficiency
	Phil Howard				High Proficiency
	Phil Howard				High Proficiency
	Phil Howard				High Proficiency
	Phil Howard				Some Proficiency

Phil Howard				High Proficiency
Phil Howard				High Proficiency
Phil Howard				High Proficiency
Phil Howard				High Proficiency
Phil Howard				High Proficiency
Phil Howard				High Proficiency
Phil Howard				Proficiency
Phil Howard				High Proficiency
Phil Howard				Proficiency
Phil Howard				Proficiency
Phil Howard				Some Proficiency
Phil Howard				Proficiency
Phil Howard				High Proficiency
Phil Howard				Proficiency
Phil Howard				Proficiency
Phil Howard				Proficiency
Phil Howard				Some Proficiency
Phil Howard				High Proficiency
Phil Howard				High Proficiency

Student	Lifelong Learning	Professional Development	Short and long-term career plans	Independent Learning
Student 1	2	2	2	1
Student 2	2	2	2	2
Student 3	3	3	4	4
Student 4	4	4	4	4
Student 5	4	4	4	4
Student 6	4	4	4	4
Student 7	3	3	3	3
Student 8	4	4	4	4
Student 9	4	4	4	4
Student 10	4	4	4	4
Student 11	3	3	2	4
Student 12	3	3	2	2
Student 13	4	4	4	4
Student 14	4	4	4	4
Student 15	4	4	4	4
Student 16	4	4	4	4
Student 17	4	4	4	4
Student 18	3	3	3	4
Student 19	3	3	3	4
Student 20	4	4	4	4
Student 21	4	4	4	4
Student 22	3	3	3	3

Summary

3.5

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