B.S. Information Technology
Oregon Tech Assessment Report
2017-18

Program Description and History

The Information Technology degree was first offered at Oregon Tech in 1999. Options included Applications Development and Business/Systems Analysis. In 2015 the above options were consolidated into a B.S. in Information Technology. This degree is offered in Klamath Falls, Wilsonville and online. The Information Technology programs were awarded accreditation by the International Assembly of Collegiate Business Educators (IACBE) in 2008, and reaccredited in 2015.

Program Highlights

Program Enrollment, Graduation and Employment Rates

Total enrollment across all campuses is approximately 167 students; 31 at the Klamath Falls campus, 88 in Wilsonville, and 48 online. The program graduated 24 students for 2018. The three-year annual starting salaries averaged $53,500. The program has a 95% success rate (within six months of graduation students are employed or in graduate school).

Industry Relationships

Industry relationships for the Information Technology degree program in the 2017-18 assessment period increased in both depth and breadth. These relationships are manifest primarily in internships, senior project opportunities, and job offers after graduation. The growing list of industry partners that demonstrate interest in Operations Management students and graduating seniors (Jeld-Wen, Intel, several banks, higher education institutions, government agencies as well as the Saudi Government, to name a few) represents tremendous potential for students to engage with industry presently and going forward.

Student Learning Experiences

Oregon Tech and the Business Management department, as a whole, provide many hands-on learning opportunities for students. These are imbedded in class, through internships and in the year-long senior project. Moreover, students in the IT programs experience curriculum that is imbedded with technology that employers use. Therefore, graduates of the program have a built both a business and technology toolbox that is relevant in the market with employers. Another tremendous learning experience is the Senior Project and the associated Symposium in May. Students are given the opportunity to present their projects in a formal environment to peers, faculty, industry sponsors, and the community at large.

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Success Stories

Information Technology students speak highly of the courses they take as evidenced by course evaluations, but many students also derive and comment on the tremendous learning experiences from the internships and senior projects. Below are two such experiences shared by students via email over this assessment period.

"All professors were very knowledge in their areas. Lots of experience. The professors are very knowledgeable about the companies and their practices within the field- which is absolutely

fantastic. They provided great insight and furthered my understanding all around. Also they included cost-effective practice – not just the popular approaches."

"The connection I made with my advisor, who was easy to approach and available when I had questions. My advisor had the best intentions in mind, and truly wanted me to succeed. The labs were very hands on and challenging with the materials up to date with industry."

Program Purpose

Bachelor of Science in Information Technology Mission
The Information Technology degree provides students with the foundation necessary to enable them to design and implement business information systems.

Educational Objectives
1. Graduates of the IT Degree can assess and apply their strengths in marketing.
2. Graduates of the IT Degree can distinguish themselves as effective communicators.
3. Graduates of the IT Degree excel in problem solving.
4. Graduates of the IT Degree model ethical and professional behavior.
5. Graduates of the IT Degree are prepared to pursue professional development opportunities and/or graduate education.

Management Department Student Learning Outcomes (SLO)
The Information Technology degree consists of the five core Management Department student learning outcomes. Upon completion of this program, Information Technology graduates will be able to:
1. Communicate the major concepts in the functional areas of accounting, marketing, finance, information technology, and management.
2. Describe the legal, social, ethical, and economic environments of business in a global context.
3. Solve organization problems, individually and/or in teams, using quantitative, qualitative, and technology-enhanced approaches.
4. Demonstrate professional communication and behavior.
5. Apply knowledge of business concepts and functions in an integrated manner.

Program Student Learning Outcomes (PSLO)
Upon completion of this program, Information Technology graduates will be able to:
1. Solve business problems though the use of information systems and technology.
2. Design and implement information systems.

Assessment Cycle

Assessment Schedule
1. **Oregon Tech's Essential Student Learning Outcomes:** ESLOs are assessed on a six-year cycle. The ESLO assessment schedule may be found on the Oregon Tech website under Essential Student Learning Outcomes.

2. **Department Level Student Learning Outcomes**: IACBE requires all accredited institutions to complete a Public Disclosure of Student Achievement on an annual basis. In addition, all outcomes are assessed annually, with the full self-study for IACBE core student learning outcomes (Core SLOs 1-5) completed every seven years.

Outcomes:	Direct	Indirect

Communicate the major concepts in the functional areas of accounting, marketing, finance, information technology, and management.	• Case Study • Senior Project	• Senior Exit Survey
Describe the legal, social, ethical, and economic environments of business in a global context.	• Case Study • Senior Project	• Senior Exit Survey
Solve organization problems, individually and/or in teams, using quantitative, qualitative, and technology-enhanced approaches.	• Case Study • Senior Project	• Senior Exit Survey
Demonstrate professional communication and behavior.	• Case Study • Senior Project	• Senior Exit Survey
Apply knowledge of business concepts and functions in an integrated manner.	• Case Study • Senior Project	• Senior Exit survey

3. **Program Student Learning Outcomes**: Program Based Annual Assessment Schedule and Activity

Outcomes:	Direct	Indirect
Solve business problems through the use of information systems and technology	• Senior Project • Systems Design Project	• Senior Exit Survey
Design and implement information systems	• Senior Project	• Senior Exit Survey

Evidence of Improvement in Student Learning

Department Level Student Learning Outcomes, Activities and Results

Management Department			
Program Outcomes	**Minimal Acceptable Performance**	**Assessment**	**Results**
Communicate the major concepts in the functional areas of accounting, marketing, finance, information technology, and management.	80% achieve a rate of 3 or 4	Senior Project N=64	86%
	80% achieve a rate of 3 or 4	Case Study N=82	86.5%
	80% score 4, 5, or 6	Senior Exit Survey N=93	75%
Describe the legal, social, ethical, and economic environments of business in a global context.	80% achieve a rate of 3 or 4.	Senior Project	86%
	80% achieve a rate of 3 or 4	Case Study	90%
	80% score 4, 5, or 6	Senior Exit Survey	90%
Solve organization problems, individually and/or in teams, using quantitative, qualitative, and technology-enhanced approaches.	80% achieve a rate of 3 or 4.	Senior Project	86%
	80% achieve a rate of 3 or 4	Case Study	81%

	80% score 4, 5, or 6	Senior Exit Survey	98%
Demonstrate professional communication and behavior.	80% achieve a rate of 3 or 4.	Senior Project	86%
	80% achieve a rate of 3 or 4	Case Study	97%
	80% score 4, 5, or 6	Senior Exit Survey	100%
Apply knowledge of business concepts and functions in an integrated manner.	80% achieve a rate of 3 or 4	Senior Project	86%
	80% achieve a rate of 3 or 4	Case Study	84%
	80% score 4, 5, or 6	Senior Exit Survey	100%

- **How did past results compare with this year's results?**
  Senior Project: The department has seen ongoing improvement over the last several years with this assessment. During the 2014-15 assessment cycle, the department did not meet any of our learning objectives. Each year this has been slowly improved. This was the first year we have met all the minimal acceptable performance levels for all outcomes.

  Case Study: The results from the case study assignment have improved over prior years as well. Similar to senior project, during prior years many areas did not meet the targeted performance levels. This year, all student learning objectives were met at 80% and above.

  Senior Exit Survey: The results of this year are similar to past years. Areas of concern for student learning are accounting, marketing, finance and information technology. All other areas connected to the student learning outcomes continue to perform well meeting minimal acceptable performance levels.

- **Can you say the data supports improvements based on the action plan? (i.e. closing the loop).**
  Senior Project: The data supports the strategies that we have been employing. Strategies that have been used over the last years have been for faculty teaching senior project to communicate best practices and standards on a regular basis. Faculty have also shared and developed materials that have been shared across the department. Moreover, all faculty, apart from those teaching senior project, are actively working with students to mentor them through the process. For example, Professor Schaeffer mentors students through the greenbelt process while Professor Yates offers feedback on writing.

  Case Study: This past year a more unified approach was planned and implemented by faculty teaching the course related to this assignment. Specifically, two years ago we developed a case study assignment that was related to the business simulation used in the Strategic Management course. This assignment not only requires students to apply the knowledge within the business simulation, but also incorporates prior knowledge from their other program course work. This past year the professors utilized this same approach rather than creating assignments individually. Like senior project, the interactions of faculty helped to develop a more cohesive approach that focused on the student learning outcomes.

  Senior Exit Survey: In the prior year the department adjusted the survey questions to focus on student learning rather than a series of questions focused on the student's perception of faculty. After making this change, there was no significant changes. Discussion among the

faculty showed a concern that the correct wording in the question was still not quite right. Specifically, the question asked students to rate their proficiency in the various student outcomes (i.e. accounting, marketing). Advice from an IACBE representative is that our results are unusual so we want to get the root of this issue.

- **Data-driven Action Plans: Changes Resulting from Assessment**
  Senior Project: The faculty would like to find a way to have more than one senior project professor assess the student work. This will allow all faculty to review senior projects and provide feedback for improvement. This will likely be done using a small sample of the projects to discover areas of improvement as well as feedback for faculty teaching senior project courses. These discussions will be conducted in the winter or spring terms within small groups or during a department retreat.

  Case Study: The plan for this next year is for the course faculty to continue to discuss their approaches and share ideas for the Strategic Management course and the assignment. As with the senior project refining the approach to this class and assessment may be able to pinpoint areas of improvement.

  Senior Exit Survey: Following discussion, the group determined we will make another adjustment to the senior exit survey. Specifically, the word proficiency should be replaced with the word understanding since this will more accurately focus on the question's intent. The goal of this plan is for at least 80% of students being able to rate their understanding of each of the functional areas of business at a high level (4-6). If this does not work this year, the department will need to drill into these courses to determine specific student concerns.

  Program Student Learning Outcomes, Activities and Results

Information Technology			
Program Outcomes	**Minimal Acceptable Performance**	**Assessment**	**Results**
Solve business problems through the use of information systems and technology	80% achieve a rate of 3 or 4	Senior Project N=21	85%
	80% score 4, 5, or 6	Systems Design Project N=16	62%
	80% score 4, 5, or 6	Senior Exit Survey N=27	100%
Design and implement information systems	80% achieve a rate of 3 or 4.	Senior Project	85%
	80% score 4, 5, or 6	Senior Exit Survey	96%

- **How did past results compare with this year's results?**
  In 2017-2018, 85% of students met the senior project program outcomes and in 2016-2017 100% of students met outcomes. In 2017-2018, 62.5% of students met the design project and in 2016-2017, 73% of students met outcomes.
- **Can you say the data supports improvements based on the action plan? (i.e. closing the loop).**
  There was no action plan.

- **Data-driven Action Plans: Changes Resulting from Assessment**
  Senior Project: Students are currently meeting the objective for senior project. The online students do not do as well as those working with faculty on campus. Increased interaction with online students is being planned. In addition, the IT/HI faculty have worked with all faculty advising IT/HI students to ensure that focused electives are being taken before senior project is started. This will ensure that students have taken 300 and 400 level electives in their chosen area before attempting project management in the senior project sequence.

  Systems Design Project: Professor Lindy Stewart will review the curriculum for MIS 442 that includes the Systems Design Project and evaluate effectiveness and consider re-structuring of curriculum. This will aid in students ability to critically think and problem solve.