

**Information Technology – Business/Systems Analysis Option  
Oregon Tech Assessment Report  
2014-2015**

**I. Program History**

**History**

The Information Technology degree was first offered at OT in 1999. In addition, the Management Department offered degrees in Management Information Systems and Management Information Systems, Management Accounting Option. Because of similarities across these degrees, and in response to student and employer requests, the Department restructured the Information Technology degree in 2006. Today the Information Technology degree allows students to choose from four specialty areas: Accounting, Applications Development, Business/Systems Analysis, and Health Informatics. The Business/Systems Analysis Option integrates technical, business, and interpersonal skills to prepare students for successful careers as business/systems analysts. This degree option is offered in Klamath Falls and in Portland. Current enrollment in Information Technology – Business/Systems Analysis is 58 students with 16 students at the Klamath Falls campus and 33 students at the Portland campus and 14 through Distance Education. 13 students petitioned to graduate with an Information Technology – Business/Systems Analysis degree in June 2015.

The Information Technology – Business/Systems Analysis program was awarded accreditation by the International Assembly of Collegiate Business Educators (IACBE) in 2008.

**Program Purpose**

The Management faculty reviewed the program purpose, objectives, and learning outcomes during the fall faculty meeting in September 2014. The faculty reaffirmed the statements below:

**Information Technology – Business/Systems Analysis Option Mission Statement:**

The Information Technology – Business Systems/Analysis Option degree provides students with the technology foundation necessary to enable them to plan and analyze business information systems in information technologies in a business management setting.

## **Educational Objectives:**

- (1) The Information Technology – Business/Systems Analysis degree program prepares students to apply critical thinking skills to the ever changing Information Technology industry.
- (2) The Information Technology – Business/Systems Analysis degree program prepares students to succeed in broad industry applications such as mid-level managers or as IT professionals.

## **Student Learning Outcomes:**

The Information Technology – Business/Systems Analysis option consists of the eight core Management Department student learning outcomes as well as four student learning outcomes specific to this program. Upon completion of this program, Information-Technology-Business/Systems Analysis graduates will be able to:

1. Explain the major concepts in the functional areas of accounting, marketing, finance, and management
2. Evaluate the legal, social, and economic environments of business
3. Describe the global environment of business
4. Describe and explain the ethical obligations and responsibilities of business.
5. Apply decision-support tools to business decision making
6. Construct and present effective oral and written forms of professional communication
7. Apply knowledge of business concepts and functions in an integrated manner
8. Use specialized knowledge to solve business problems
  - a. Demonstrate the ability to analyze, design, implement, and support Relational Database Management Systems (RDMS).
  - b. Analyze business needs with the view to design and implement data networks.
  - c. Perform the general planning and analysis of business systems that will support the development of modern business information systems (IS).
  - d. Develop fundamental programming skills and apply those skills to solving business information system problems.

## **II. Assessment Cycle**

### **Assessment schedule**

IACBE requires all accredited institutions to complete a full assessment cycle for all IACBE core student learning outcomes (SLOs 1-8) on an annual basis.

### III. 2014-2015 Assessment Activities

#### Direct Assessment

#### ETS Major Field Test ( SLO 1,2,3,4 are Assessed)

Compared to Nation	Klamath Falls n = 0	Wilsonville n = 8	Distance Education n=1
Total Percentile	NA	57%	46%

Table 1: ITS Option compared to national individuals who took the ETS Major Field Test

Subject Area	Program Specific n = 9 Percentile Below
1. Accounting	9%
2. Economics	44%
3. Management	69%
4. Quantitative Business Analysis	47%
5. Finance	84%
6. Marketing	76%
7. Legal and Social Environment	57%
8. Information Systems	99%
9. International Issue	55%

Table 2: Program compared by subject

#### **Strengths**

Students performed well in the Information Systems emphasis of the exam.

#### **Weaknesses**

All areas except IS and Finance need improvement.

#### **Action Plans**

Improve students understanding of the value with the ETS Major Field Test process. We can improve student understanding by illustrating the connections and value of those that take the exam as a benchmark of knowledge, in which future employers

could look back on. Integrate business core concepts into Information systems courses/assignments.

Senior Case Study (SLO 1,2,3,4,6,7,8 are Assessed)

Criteria n=10	Percentage Met or Exceeded Faculty Expectations
<b>Company Background and statement of the Business Problem or Issue</b>	<b>80%</b>
<b>Analysis</b>	<b>80%</b>
<b>Conclusions</b>	<b>40%</b>

**Strengths:** Students performed well in the background and analysis components of the case study.

**Weaknesses:** Not enough students to represent a statistically significant sample size. Students performed poorly in the conclusions section of the case study.

**Action Plans:** Phasing out the Business Systems Analysis option, which will eliminate redundancies within our program. Also educate students on the benefits of taking assessment activities to get honest results from students in the program.

Senior Project (SLO 5,6,7,8 are Assessed)

Performance Criteria	Assessment Method	Measurement Scale	Minimum Acceptable Performance	Results
<b>Project Objective - Identification</b>	Final project	1 – 4 Agreement Scale	80% achieve 3 or 4 rating	57% (n=7)
<b>Organization Environment - Context</b>	Final project	1 – 4 Agreement Scale	80% achieve 3 or 4 rating	57% (n=7)
<b>Project Management - Process</b>	Final project	1 – 4 Agreement Scale	80% achieve 3 or 4 rating	57% (n=7)
<b>Project Completion – Product</b>	Final project	1 – 4 Agreement Scale	80% achieve 3 or 4 rating	71% (n=7)
<b>Culminating Experience</b>	Final project	1 – 4 Agreement Scale	80% achieve 3 or 4 rating	100% (n=7)
<b>Written Communication of Results</b>	Final project	1 – 4 Agreement Scale	80% achieve 3 or 4 rating	57% (n=7)
<b>Oral Communication of Results</b>	Final project	1 – 4 Agreement Scale	80% achieve rating of 3 on all 6 performance criteria	57% (n=7)

**Strengths:**

**Weaknesses:** Students did not perform well on their ability to identify their project problem. Project Management skills were not demonstrated at an acceptable level.

**Action Plans:** Enhance project management training by pulling out the PM course as a separate and earlier course. Implement across campus senior project teaching, assigning individual advisors to each student. Create a new set of project requirements and teaching methods for senior project candidates. Add another term of the senior project sequence to provide an additional course on selecting a successful project.

**Indirect Assessment**

**PSLO**

1. Demonstrate the ability to analyze, design, implement, and support Relational Database Management Systems (RDMS).
2. Analyze business needs with the view to design and implement data networks.
3. Perform the general planning and analysis of business systems that will support the development of modern business information systems (IS).
4. Develop fundamental programming skills and apply those skills to solving business information system problems.

**Performance Criteria (PC):**

1. Employ SDLC to plan and design IS to meet business needs.
2. Design an IS that incorporates industry standards and best practices.
3. Generate system specifications and project plan.

Survey Question	PC	Assessment Method	Measurement Scale	Minimum Acceptable Performance	Results (KF) n=	Results (WLV) n=4	Results (DE) n=0
10. I can complete PSLO 1	1	Student rating	1-6 Agreement Scale	80% indicate 5 or 6 rating	n/a	75%	n/a
11. I can complete PSLO 2	1	Student rating	1-6 Agreement Scale	80% indicate 5 or 6 rating	n/a	50%	n/a
12. I can complete PSLO 3	1 2 3	Student rating	1-6 Agreement Scale	80% indicate 5 or 6 rating	n/a	75%	n/a
13. I can complete PSLO 4	1 2 3	Student rating	1-6 Agreement Scale	80% indicate 5 or 6 rating	n/a	75%	n/a

Table 3: Assessment Results from Senior Survey

**\*Note: DE students were provided a personalized email with a link to participate in the senior exit survey. 0 students completed the exit survey**

## **Results from Senior Focus Group**

Overall students are pleased with their career prospects and understand the program outcomes. The senior project focus group was facilitated in BUS 478, a course that all seniors in the program are required to take.

**Strengths:** Students found upper division courses designed for their discipline to be the biggest strength of the program. Students also feel that they are job ready.

**Weaknesses:** Students mentioned that the program is emphasized too heavily on business courses.

**Action Items:** Continue efforts to make links between business related courses and IT core courses.

## **IV. Summary**

The IT program is struggling to obtain quality data from all locations, and with low enrollment continuing to have small sample sizes that drastically affects the quality of our assessment measurements. Re-designing the IT curriculum and outcomes is a current initiative to improve quality and entice enrollment. During the 2013-2014 academic year, program faculty developed a curriculum map based on last year's PSLO recommendation. A proposal for a consolidation of Application development and Systems Analysis has been approved. The expected start date is Fall 15.