

**Information Technology – Health Informatics
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 field of Health Informatics is the result of the convergence of information management and information technologies. Health informatics professionals work in operational and management positions throughout the health care industry in such locales as hospitals, clinics, managed care organizations, software vendors and government agencies. This degree option was first offered in Klamath Falls and Portland in fall 2008. Current enrollment is 52 students with 12 students at the Klamath Falls campus and 31 students at the Wilsonville campus and 7 students through Distance Education. 14 students petitioned to graduate with an Information Technology – Health Informatics Degree in June 2015.

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

II. Program Purpose

Information Technology – Health Informatics Option Mission Statement:

The Information Technology – Health Informatics Option degree provides students with the technology foundation necessary to enable them to plan and analyze health information systems in information technologies in a clinical setting.

Educational Objectives:

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

Student Learning Outcomes:

The Information Technology – Health Informatics option consists of the eight core Management Department student learning outcomes. Upon completion of this program, Information-Technology-Health Informatics 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.

III. 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.

IV. 2014-2015 Assessment Activities

Direct Assessment

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

Compared to Nation	Klamath Falls n = 3	Wilsonville n = 9
Total Percentage	42%	60%

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

Subject Area	Program Specific n = 12 Percentile Below
1. Accounting	39%
2. Economics	76%
3. Management	81%
4. Quantitative Business Analysis	90%
5. Finance	23%
6. Marketing	65%
7. Legal and Social Environment	44%
8. Information Systems	97%
9. International Issue	39%

Table 2: Program compared by subject

Strengths

Students performed well in Information Systems. In 2014 an increase from 44% to 76% in Economics, an increase from 27% to 81% in Management and an increase from 53% to 90% in Quantitative Business Analysis.

In the 2013 report, a weakness in marketing was identified at a level of 32%. In 2014 Students performed at the 65% level in Marketing.

Weaknesses

The Oregon Tech Online and Klamath Falls programs did not have a large sample size. Some students opted out of completing the exam or did not give adequate effort, stopping prior to completion

Students have low scores in multiple areas of the exam. Specifically in International Issues and Finance. In 2014 student's scores in Finance dropped by 17%.

Action Plans

Improve students understanding of the value with the ETS Major Field Test process. Continue to find ways to integrate Finance fundamentals into the HI curriculum outside of the ACC 325 finance course.

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

Criteria n=11	Percentage Met or Exceeded Faculty Expectations
Company Background and statement of the Business Problem or Issue	64%
Analysis	55%
Conclusions	55%

Strengths

Students have improved their ability to demonstrate in the areas of the Senior Case Study

Weaknesses

Students had difficulties in conducting a conclusion on the case study project. Students also do not understand how to arrive at a solution of a case study when financial information is the primary implication with the decision.

Action Plans

Educate students on the benefits of taking assessment activities to get honest results from students in the program. Educate students on arriving at a conclusion to a solution. Students need to understand that arriving at a conclusion for an Information Technology project is similar to that of a case study. Students need a better understanding of finance and more emphasis needs to be put into sr. project so students can understand how finance impacts the success rate of the project and can impact decision making.

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

Performance Criteria	Assessment Method	Measurement Scale	Minimum Acceptable Performance	Results
Project Objective - Identification	Final project	1 – 4 Proficiency Scale	80% achieve 3 or 4 rating	64% (n=11)
Organization Environment - Context	Final project	1 – 4 Proficiency Scale	80% achieve 3 or 4 rating	64% (n=11)
Project Management - Process	Final project	1 – 4 Proficiency Scale	80% achieve 3 or 4 rating	64% (n=11)
Project Completion – Product	Final project	1 – 4 Proficiency Scale	80% achieve 3 or 4 rating	64% (n=11)
Culminating Experience	Final project	1 – 4 Proficiency Scale	80% achieve 3 or 4 rating	100% (n=11)
Written Communication of Results	Final project	1 – 4 Proficiency Scale	80% achieve 3 or 4 rating	73% (n=11)
Oral Communication of Results	Final project	1 – 3 Proficiency Scale	80% achieve rating of 3 on all 6 performance criteria	73% (n=11)

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.

Table 3: Assessment Results from Senior Survey

Survey Question	PC	Assessment Method	Measurement Scale	Minimum Acceptable Performance	Results (KF) n=3	Results (WLV) n=2	Results (DE) n=0
1. I can complete PSLO 1	1	Student rating	1-6 Agreement Scale	80% indicate 5 or 6 rating	100%	100%	
2. I can complete PSLO 2	1	Student rating	1-6 Agreement Scale	80% indicate 5 or 6 rating	100%	100%	
3. I can complete PSLO 3	1 2 3	Student rating	1-6 Agreement Scale	80% indicate 5 or 6 rating	100%	100%	
4. I can complete PSLO 4	1 2 3	Student rating	1-6 Agreement Scale	80% indicate 5 or 6 rating	100%	100%	

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 at the Wilsonville campus desire support and faculty on site.

Action Items:

Hire a full time Health Informatics faculty to support students in Wilsonville. Spend more time emphasizing the value of understanding business fundamentals in Information Technology.

V. 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 2014-2015 the proposal for a new degree in Health Informatics was approved and set to launch Fall Quarter of 2015.