

**Information Technology – Health Informatics  
Oregon Tech Assessment Report  
2013-2014**

**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 67 students with 20 students at the Klamath Falls campus and 47 students at the Wilsonville campus. 9 students petitioned to graduate with an Information Technology – Health Informatics Degree in June 2013. Employers of our 2013 graduates include Huron Consulting Group, Yahoo, OCHIN, Vyanet. Reported starting salaries ranged from \$30,000 to \$70,000.

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. 2013-2014 Assessment Activities**

## Direct Assessment

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

Compared to Nation	Klamath Falls n = 2	Wilsonville n = 6
Total Percentage	22%	57%

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

<b>Subject Area</b>	<b>Program Specific n = 8 Percentile Below</b>
1. Accounting	57%
2. Economics	44%
3. Management	27%
4. Quantitative Business Analysis	53%
5. Finance	40%
6. Marketing	32%
7. Legal and Social Environment	68%
8. Information Systems	99%
9. International Issue	32%

Table 2: Program compared by subject

### **Strengths**

Students performed well in Information Systems.

### **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 Marketing and Finance appears to be an area of weakness.

### **Action Plans**

Improve students understanding of the value with the ETS Major Field Test process. Integrate the value of finance and marketing into the core program of HI.

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

<b>Criteria n=2</b>	Percentage Met or Exceeded Faculty Expectations
<b>Company Background and statement of the Business Problem or Issue</b>	<b>50%</b>
<b>Analysis</b>	<b>50%</b>
<b>Conclusions</b>	<b>0%</b>

**Strengths**

Students demonstrate

**Weaknesses**

Students had difficulties in conducting a conclusion on the case study project. There was only an n of 2, resulting in an insignificant value. 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)

<b>Performance Criteria</b>	<b>Assessment Method</b>	<b>Measurement Scale</b>	<b>Minimum Acceptable Performance</b>	<b>Results</b>
<b>Project Objective - Identification</b>	Final project	1 – 4 Proficiency Scale	80% achieve 3 or 4 rating	88% (n=8)
<b>Organization Environment - Context</b>	Final project	1 – 4 Proficiency Scale	80% achieve 3 or 4 rating	88% (n=8)
<b>Project Management - Process</b>	Final project	1 – 4 Proficiency Scale	80% achieve 3 or 4 rating	75% (n=8)
<b>Project Completion – Product</b>	Final project	1 – 4 Proficiency Scale	80% achieve 3 or 4 rating	88% (n=8)

<b>Culminating Experience</b>	Final project	1 – 4 Proficiency Scale	80% achieve 3 or 4 rating	N/A
<b>Written Communication of Results</b>	Final project	1 – 4 Proficiency Scale	80% achieve 3 or 4 rating	88% (n=8)
<b>Oral Communication of Results</b>	Final project	1 – 3 Proficiency Scale	80% achieve rating of 3 on all 6 performance criteria	88% (n=8)

**Strengths:** Students are performing well on their sr. project capstone.

**Weaknesses:** Assessment Rubric was not in place when students began the sr. project.

**Action Plans:** Continue emphasizing the value of sr. project in the program and how all domains of management are valuable within the program outcomes.

### 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=2	Results (WLV) n=2	Results (DE) n=2
1. I can complete PSLO 1	1	Student rating	1-6 Agreement Scale	80% indicate 5 or 6 rating	100%	100%	50%
2. I can complete PSLO 2	1	Student rating	1-6 Agreement Scale	80% indicate 5 or 6 rating	75%	50%	50%
3. I can complete	1 2	Student rating	1-6 Agreement	80% indicate 5 or 6 rating	75%	100%	100%

PSLO 3	3		Scale				
4. I can complete PSLO 4	1 2 3	Student rating	1-6 Agreement Scale	80% indicate 5 or 6 rating	75%	100%	0%

Table 3: Assessment Results from Senior 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 their Data Networking courses were not strong enough to prepare them for the workforce, there was mention that the material did not address real world application. Additionally students mentioned that the program is emphasized too heavily on business courses.

#### Action Items:

Hired a full time faculty member to lead the networking courses. Spend more time emphasizing the value of understanding business fundamentals in Information Technology.

### Results from Critical Thinking Assessment

Category	Percentage Met or Exceeded Faculty Expectations
Identification	0%
Clarification	0%
Evaluation	100%

Table 4: Critical Thinking Results

#### Strengths:

N/A

#### Weaknesses:

The critical thinking assessment has an n=1. Only having one student registered in the course did not provide a quality measurement.

First year assessing this category, students may have been unclear of the value of the expectations

### **Action Plans**

Emphasize the value of the critical thinking assignment within the program and emphasize critical thinking. Collaborate with all faculty across campuses to ensure that all students are completing this assessment activity.

### **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 2013-2014 academic year, program faculty developed a curriculum plan based on last year's PSLO recommendation. A proposal for a new degree in Health Informatics is currently under review with the Oregon University System. The anticipated start date is Fall 14.