Information Technology – Business/Systems Analysis Option
OIT Assessment Report
2010-2011

I. Program History

History

The Information Technology degree was first offered at OIT 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 is 46 students with 24 students at the Klamath Falls campus and 22 at the Portland campus. Twelve students graduated with an Information Technology – Business/Systems Analysis degree in June 2010.

II. Program Purpose

The Management faculty reviewed the program purpose, objectives, and learning outcomes during the fall faculty meeting in September 2010. 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.

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 nine core Management Department student learning outcomes as well as three student learning outcomes specific to this program. Upon completion of this program, Information-Technology-Business/Systems Analysis graduates will be able to:

1. Demonstrate an understanding of the functional areas of accounting, marketing, finance, management, and economics.
2. Demonstrate an understanding of the legal and social environment of business.
3. Demonstrate an understanding of the global environment of business.
4. Demonstrate an understanding of the ethical obligations and responsibilities of business.
5. Demonstrate the ability to use business tools.
6. Demonstrate information literacy.
7. Demonstrate the ability to communicate effectively.
8. Demonstrate the ability to apply knowledge of business concepts and functions in an integrated manner.
9. Demonstrate the ability to work effectively in teams and/or groups.
10. Demonstrate the ability to analyze, design, implement, and support Relational Database Management Systems (RDMS)
11. Analyze business needs with the view to design and implement data networks.
12. Perform the general planning and analysis of business systems that will support the development of modern business information systems (IS).

III. Assessment Cycle

Assessment schedule

IACBE requires all accredited institutions to complete a full assessment cycle for all IACBE core student learning outcomes (SLOs 1-9) on an annual basis. Program-specific learning outcomes (PSLOs 10-12) will be assessed as follows:

Program-Specific Learning Outcomes	2008-2009	2009-2010	2010-2011	2011-2012
10. Demonstrate ability to analyze, design, implement, and support RDMS.	X			X
11. Analyze business needs with the view to design and implement data networks.			X	
12. Perform the planning and analysis of business systems to support IS.		X		

Table 1: Assessment Cycle for Information Technology – Business/Systems Analysis PSLOs

I. 2010-2011 Assessment Activities

The assessment results for the nine core student learning outcomes will be reported separately in the 2010-11 IACBE Report of Student Learning and Achievement. This report covers PSLO #11 only per the assessment cycle above.

PSLO #11: Analyze business needs with the view to design and implement data networks.

Direct Assessment #1: The faculty assessed this outcome in MIS 351, Enterprise Network Design I, fall 2010 at the Portland campus, using the final project.

Performance Criteria	Assessment Method	Measurement Scale	Minimum Acceptable Performance	Results
1. Design a practical data network targeting business needs.	Rating of final project	1-4 Proficiency Scale	80% achieve 3 or 4 rating	100%
2. Design a data network that incorporates industry standards and best practices.	Rating of final project	1-4 Proficiency Scale	80% achieve 3 or 4 rating	100%
3. Generate system specifications and project plan.	Rating of final project	1-4 Proficiency Scale	80% achieve 3 or 4 rating	100%

Table 2: Assessment Results for PSLO #11 in MIS 351

Strengths: MIS 351 is oriented around finding business solutions using network technologies. The labs in MIS 351 provide a combination of bottom-up equipment training and top-down business problem solving.

Weaknesses: Students in MIS 351 are required to have a good understanding of PCs and simple LAN components coming into the class. The program needs to be revised to allow these skills to be taught prior to MIS 351. Additionally, many of the students in MIS 351 have underdeveloped writing/communication skills that make the lab-

based approach difficult for them given the need to communicate their learning experience in a lab narrative.

Actions: The program needs to provide stronger network training of simple protocols and LAN components prior to MIS 351. The program will introduce MIS 273 in fall 2011 to add technical skills training to the curriculum.

Direct Assessment #2: The faculty assessed this outcome in MIS 272, Introduction to Networking, online, fall 2010 using the final project.

Performance Criteria	Assessment Method	Measurement Scale	Minimum Acceptable Performance	Results
4. Develop a working understanding of network communication protocols and LAN topological components.	Rating of final project	1-4 Proficiency Scale	80% achieve 3 or 4 rating	50%
5. Design a data network that incorporates industry standards and best practices.	Rating of final project	1-4 Proficiency Scale	80% achieve 3 or 4 rating	100%
6. Generate system specifications and project plan.	Rating of final project	1-4 Proficiency Scale	80% achieve 3 or 4 rating	100%

Table 3: Assessment Results for PSLO #11 in MIS 272

Strengths: This course provides a broad overview of local area networking, providing students with a hands-on experience using their home systems.

Weaknesses: It is expected that students are able to quickly learn new, complex networking concepts. Stronger writing skills are needed for writing labs.

Additionally, labs are grading intensive, contributing, in part, to an overall difficult course to teach online.

Actions: The content of this course will be spread out among two networking courses (MIS 272 and MIS 273) starting fall 2011. It is necessary to identify better virtual tools that can be used by online students to simulate hands-on network lab activities.

Indirect Assessment: The faculty indirectly assessed this outcome spring 2011. Seniors were asked to complete a senior survey and attend a focus group session. Both the survey and the focus group asked students to rate how well the Information Technology – Business/Systems Analysis program taught the program-specific student learning outcomes and corresponding competencies.

Performance Criteria (PC):

1. Develop a working understanding of network communication protocols and LAN topological components.
2. Design a data network that incorporates industry standards and best practices.
3. Generate system specifications and project plan.

Survey Question	Assessment Method	Measurement Scale	Minimum Acceptable Performance	Results
1. I understand the role of IS in an inter-organizational/ international setting.	Student rating	1-4 Proficiency Scale	80% achieve 3 or 4 rating	86% (n=7)
2. I am able to demonstrate how an information system is a strategic and integral component of an organization.	Student rating	1-4 Proficiency Scale	80% achieve 3 or 4 rating	86% (n=7)
3. I understand the concepts of computer hardware architectures and their supporting peripheral devices.	Student rating	1-4 Proficiency Scale	80% achieve 3 or 4 rating	86% (n=7)
4. I understand the concepts of system software components and their role in IS.				86% (n=7)

Table 4: Assessment Results for PSLO #11 from Senior Survey

IV. Summary of student learning

The Information Technology – Business/Systems Analysis option provides a business-oriented, hands-on approach to network design. Assessment of this outcome has shown that MIS 272, Introduction to Networking, is not providing the technical knowledge necessary for students to succeed in later classes as evidenced by the remedial work currently required in MIS 351, Enterprise Network Design I. While students appear to understand the concepts of top-down network design, they fail to understand the hands-on technical knowledge of networking building blocks. With insufficient knowledge of these key concepts, students tend to struggle through the network design series (MIS 351, MIS 352). The addition of MIS 273, Introduction to Networking II, will help reinforce these concepts and provide students with the knowledge base needed to succeed in MIS 351 and 352.

V. Changes resulting from assessment

The top priority for the IT programs has been to hire qualified faculty to oversee the Klamath Falls degree programs. After two years of failed searches, the department welcomed two new faculty members to the campus fall 2010. The department chair and assessment coordinator worked with the Portland and Klamath faculty to coordinate this year's assessment activities including: reviewing student feedback from 2009-2010 assessment activities; reviewing and revising, as needed, the programs PSLOs and performance criteria; delineating differences in the curriculums between the IT options; and establishing an assessment cycle for Klamath, Portland, and online courses.

As a result of these efforts, minor changes were made to the program PSLOs which are reflected in this assessment report; faculty members continue to discuss more substantial changes to the degree options. In particular, faculty are considering combining the Applications Development and Business/Systems Analysis options as there are minimal differences between the two degree options as currently offered. Finally, greater efforts will be made in 2011-2012 to better coordinate assessment activities across campuses and online.

Information Technology – Business/Systems Analysis
SLO-Curriculum Map

SLO #10: The student will demonstrate ability to analyze, design, implement, and support Relational Database Management Systems (RDMS).

Courses that are shaded below indicate that the SLO above is taught in the course, students demonstrate skills or knowledge in the SLO, and students receive feedback on their performance on the SLO.

I = Introduced R = Reinforced E = Emphasized

	Fr.		Soph.		Jr.		Sr.	
Fall	WRI 121		ACC 201		MIS 273	R	MGT 461	
	MATH 111		MATH 361		MIS 312	R	MIS 351	R
	MIS 115		MIS 311		MIS 341	E	MIS 496	R
	MIS 275	I	WRI 227		ACC 325		BUS 457	
							Tech Elective	
Win	MIS 215	E	MATH 371		BUS 226		ANTH 452 or PSCI 326	
	ECO 201N		MIS 102		MIS 322		MIS 497	
	SPE 111		MIS 256		WRI 350		MSSS Elective	
	Lab Sci Elective		SPE 321		Hum Elective		MSSS Elective	
			MSSS Elective		MSSS Elective		Tech Elective	
Spr	BUS 215		ACC 203		PSY 347		BUS 478	
	ECO 202N		BUS 356		Hum Elective		MIS 479	
	BUS 223		MIS 272	R	Tech Elective		MIS 498	
	PSY 201		MSSS Elective		WRI 327		Hum Elective	
	WRI 122				MIS 375		Tech Elective	

Information Technology – Business/Systems Analysis
SLO-Curriculum Map

SLO #11: The student will analyze business needs with the view to design and implement data networks.

Courses that are shaded below indicate that the SLO above is taught in the course, students demonstrate skills or knowledge in the SLO, and students receive feedback on their performance on the SLO.

I = Introduced R = Reinforced E = Emphasized

	Fr.		Soph.		Jr.		Sr.	
Fall	WRI 121		ACC 201		MIS 273	E	MGT 461	
	MATH 111		MATH 361		MIS 312	R	MIS 351	E
	MIS 115		MIS 311	R	MIS 341	R	MIS 496	
	MIS 275	R	WRI 227		ACC 325		BUS 457	
							Tech Elective	
Win	MIS 215	R	MATH 371		BUS 226		ANTH 452 or PSCI 326	
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Spr	BUS 215		ACC 203		PSY 347		BUS 478	
	ECO 202N		BUS 356		Hum Elective		MIS 479	
	BUS 223		MIS 272	E	Tech Elective		MIS 498	
	PSY 201		MSSS Elective		WRI 327		Hum Elective	
	WRI 122				MIS 375		Tech Elective	

Information Technology – Business/Systems Analysis
SLO-Curriculum Map

SLO #12: The student will perform the general planning and analysis of business systems that will support the development of modern business information systems.

Courses that are shaded below indicate that the SLO above is taught in the course, students demonstrate skills or knowledge in the SLO, and students receive feedback on their performance on the SLO.

I = Introduced R = Reinforced E = Emphasized

	Fr.		Soph.		Jr.		Sr.	
Fall	WRI 121		ACC 201		MIS 273	R	MGT 461	
	MATH 111		MATH 361		MIS 312	E	MIS 351	E
	MIS 115		MIS 311	I	MIS 341		MIS 496	E
	MIS 275	R	WRI 227		ACC 325		BUS 457	
							Tech Elective	
Win	MIS 215	R	MATH 371		BUS 226		ANTH 452 or PSCI 326	
	ECO 201N		MIS 102		MIS 322	E	MIS 497	R
	SPE 111		MIS 256		WRI 350		MSSS Elective	
	Lab Sci Elective		SPE 321		Hum Elective		MSSS Elective	
			MSSS Elective		MSSS Elective		Tech Elective	
Spr	BUS 215		ACC 203		PSY 347		BUS 478	
	ECO 202N		BUS 356		Hum Elective		MIS 479	
	BUS 223		MIS 272		Tech Elective		MIS 498	R
	PSY 201		MSSS Elective		WRI 327		Hum Elective	
	WRI 122				MIS 375		Tech Elective	