

**Information Technology – Applications Development Option
OIT Assessment Report
2007-2008**

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 Applications Development Option focuses on the acquisition of theory and technical competencies to prepare students for successful careers as applications programmers. This degree option is offered in Klamath Falls and Portland.

Enrollment

In 2002, 110 students were enrolled in the Information Technology – Applications Development degree. Since 2002, enrollment has declined. As of 2006, 79 students were enrolled representing a decline of 28%. Enrollment ranged from 110 students in 2002 to 76 students in 2005.

Retention

In the fall 2006 cohort of first-time freshmen, one student declared Information Technology – Applications Development as their major in their first term of enrollment. That student changed their major to Information Technology – Business/Systems Analysis in fall 2007. For full-time new transfers (fall 2002 through fall 2005 cohorts), 23 students declared Information Technology – Applications Development as their major in their first term of enrollment, 13 students continued in the major after one year, one student graduated after one year, and nine students stopped out after one year.

Graduates

Twelve degrees were awarded in the Information Technology – Applications Development degree in 2006-2007.

Employment

Of nine students receiving the Graduate Survey in 2006, five students reported full-time employment in a degree-related field, one student reported part-time employment in a degree-related field, and three students did not report. Average reported salary was \$51,860.

II. Program Purpose

The Management Department was awarded accreditation by the International Assembly for Collegiate Business Education (IACBE) at its 2008 national conference. IACBE requires accredited institutions to annually assess nine core student learning outcomes. Throughout the 2007-2008 academic year, the Management Department has revisited and revised its student learning outcomes to meet IACBE requirements.

The Department also reviewed its department mission statement and developed program specific mission statements as required by the NWCCU accreditation guidelines. In addition, the Department developed educational objectives for each degree program and reviewed and revised its program-specific student learning outcomes.

Information Technology – Applications Development Option Mission Statement:

The Information Technology – Applications Development Option degree provides students with the foundation necessary to enable them to design and implement information systems.

Educational Objectives:

- (1) The Information Technology – Applications Development degree program prepares students to adapt to ever changing industry trends.
- (2) The Information Technology – Applications Development degree program prepares students to succeed in broad industry applications such as mid-level managers or as IT professionals.

Student Learning Outcomes:

- Management graduates will demonstrate an understanding of the functional areas of accounting, marketing, finance, management, and economics.
- Management graduates will demonstrate an understanding of the legal and social environment of business.
- Management graduates will demonstrate an understanding of the global environment of business.
- Management graduates will demonstrate an understanding of the ethical obligations and responsibilities of business.
- Management graduates will demonstrate the ability to use business tools.
- Management graduates will demonstrate information literacy.
- Management graduates will demonstrate the ability to communicate effectively.
- Management graduates will demonstrate the ability to apply knowledge of business concepts and functions in an integrated manner.

- Management graduates will demonstrate the ability to work effectively in teams and/or groups.
- Information Technology – Applications Development graduates will demonstrate the analysis, design, construction, and implementation of an information technology system.

III. Assessment Cycle

Assessment schedule

IACBE requires all accredited institutions to complete a full assessment cycle for all IACBE core student learning outcomes on an annual basis. The Management Department's Outcomes Assessment Plan outlines annual assessment activities. The plan includes:

- Evidence of student learning goals
- Evidence of operational goals
- Student learning outcome measures (both direct and indirect)
- Assessment of basic skills development
- Assessment of personal development

The Department finalized its IACBE core student learning outcomes as well as its program-specific outcomes during the 2007-2008 academic year. The Department will assess all outcomes during the 2008-2009 academic year.

IV. 2007-2008 Assessment Activities

Fall 2007 Assessment Activities

The Information Technology – Applications Development Option assessed four student learning outcomes: (1) The ability to analyze and design logical and physical systems, (2) Team project skills, (3) Research skills, and (4) Critical thinking skills (rubric pilot).

Fall 2007 Assessment Results:

The ability to analyze and design logical and physical systems

Students complete a comprehensive team systems analysis project that includes a project proposal, current system description, user requirements document, final system study, and a team project presentation. Student teams present their findings in a written report as well as in an oral presentation. Students then do an individual peer evaluation of the performance against expectations of the other members of their team. Individual grades for the team project are arrived at using the team score and making adjustment based on the peer evaluation.

Findings:

- Students scored well on this student learning outcome.

Action Plans:

- There are no action plans at this time.

Team Project Skills

Students complete a comprehensive team systems analysis project that includes a project proposal, current system description, user requirements document, final system study, and a team project presentation. Student teams present their findings in a written report as well as in an oral presentation. Students then do an individual peer evaluation of the performance against expectations of the other members of their team. The peer evaluations were used as the indication of achievement for this skill.

Findings:

- Students consistently score well for this skill.
- Student participation is the criteria that students most often falter on.
- Students are usually able to address this issue within their teams without instructor interference.

Action Plans:

- There are no action plans at this time.

Research Skills

Students complete a comprehensive research project that includes defining a research question, conducting a literature survey, designing and administering a survey, data entry and analysis, and the presentation of a final recommendation. Students present their findings in a written report as well as in an oral presentation.

Findings:

- Literature reviews and theoretical frameworks clearly addressed the research question and were highly relevant.
- Students failed to incorporate the basic components of their research design into their final report.
- Students provided appropriate descriptive statistics, introducing their client to the sample population.
- Methodology sections were incomplete. Students provided appropriate information, however, failed to analyze the importance of the information provided.
- Statistics were appropriate, however, incomplete to adequately analyze the research question.

Action Plans:

- Additional class time will be spent discussing the specific components of research design and how design decisions impact methodology. Students will complete a short, in-class assignment identifying design components.

Additional emphasis will be placed on including this information in the research paper.

- Discuss the possibility of adapting BUS 456 into a 2-quarter course (or 4-credit with a lab). Currently there is inadequate time currently to review statistical tests and analyze the data. This weakens the discussion section of the final paper. May also re-structure the course such that students will analyze results from a previous quarter, and write surveys and collect data for the next course.
- Emphasize appropriate report content and level of detail – what information managers want to see, regardless of their familiarity with the subject.
- Re-examine course objectives. What skills are most important for the student to have? Can course emphasis be re-directed?

Critical Thinking Skills

Students complete a comprehensive research project that includes defining a research question, conducting a literature survey, designing and administering a survey, data entry and analysis, and the presentation of a final recommendation. Students present their findings in a written report as well as in an oral presentation.

Findings:

- Students exhibited high proficiency in recognizing stakeholders and contexts as well as acknowledging other perspectives and framing personal responses as appropriate for a research assignment.
- Students did not explicitly evaluate (nor identify) the assumptions used in their research.
- Students were able to analyze data when directed to do so, but were oftentimes unable to identify the appropriate statistical test needed, or were unable to recognize the interrelationships between the data, the statistical tests, and the results.

Action Plans:

- Provide additional instruction on the importance of evaluating the assumptions. Create a short assignment that allows students to list and evaluate assumptions for inclusion in the final research paper.
- Discuss the possibility of adapting BUS 456 into a 2-quarter course (or 4-credit with a lab). Currently there is inadequate time currently to review statistical tests and analyze the data. This weakens the discussion section of the final paper. May also re-structure the course such that students will analyze results from a previous quarter, and write surveys and collect data for the next course.
- Re-examine course objectives. What skills are most important for the student to have? Can course emphasis be re-directed?

Spring 2008 Assessment Activities

- Management faculty met to discuss program-specific student learning outcomes for the Information Technology – Applications Development degree. In accordance with IACBE guidelines the Department reviewed its current student learning outcomes, ensuring that IACBE-specific outcomes are included. In addition, the Department reviewed its program-specific outcomes for relevancy.
- Faculty need to identify an entry-, mid-, and exit-point in the curriculum for assessment of each student learning outcome.
- Faculty members in each program area developed performance criteria for each student learning outcome.

V. Student Learning Improvement Plan

During the 2007-2008 academic year, the Information Technology – Applications Development program assessed four student learning outcomes.

The ability to analyze and design logical and physical systems

Strengths: Students demonstrated proficiency for most performance criteria: project team composition, system request, project schedule, and team project presentation. Student ability to complete tasks relating to current system description, user requirements document, and final system study were acceptable.

Plans for improvement: None at this time

Team Project Skills

Strengths: Students demonstrated proficiency for all performance criteria: project schedule, current system description, user requirements document, final system study, and team project presentation.

Plans for improvement: None at this time.

Research Skills

Strengths: Students correctly identified a research problem, conducted a literature review, identified relevant variables, developed relevant hypotheses, provided appropriate recommendations, and produced a professional report. Students' ability to analyze and present data and discuss their results and their implications was acceptable.

Weaknesses: Students were unable to justify their research design and methodology.

Plans for improvement: IT faculty reviewed and approved course content. During the 2008-2009 academic year the Department will submit a request to CPC to increase credit hours for this course from 3-credit hours to 4-credit hours. The additional credit hour will be used for a weekly lab session which will allow for one-on-one instruction with students. In addition, IT faculty approved “merging” BUS 456, Business Research Methods and BUS 414, Marketing Research. A new course title will be decided upon fall quarter.

Critical Thinking Skills

Please note: BUS 456 was selected to pilot OIT’s critical thinking rubric. Students were not graded on critical thinking, nor were they prompted to meet the critical thinking criteria presented in the rubric.

Strengths: Students were able to identify and explain a problem/question/issue; recognize stakeholders and contexts; frame personal responses and/or acknowledge other perspectives, evaluate assumptions, and evaluate implications, conclusions, and consequences.

Weaknesses: Students were unable to correctly evaluate evidence.

Plans for improvement: IT faculty believe there are other areas in the curriculum where critical thinking may be more appropriately assessed using OIT’s rubric.