

Information Systems and Technology B.S.B.A.

Expanded Statement of Institutional Purpose

Institutional Mission Reference

The University's mission states: The University has a special mission for the Commonwealth in commerce, and international affairs and cultures. It has a significant commitment in science, engineering and technology, particularly in fields of major importance to the region. The Information Systems is in line with this mission. The Commonwealth has established technology scholarships to assist students in obtaining a degree in selected technological fields. The Information Systems and Technology major was designated as one of those prominent programs. (Old Dominion University Catalog 2002-2004, p. 2).

Institutional Goal(s) Supported

The Information Systems and Technology Program supports the University goals of (a) quality undergraduate academic programs, (b) quality teaching, (c) research, scholarship and creativity, (d) community service, and (e) distance education (Old Dominion University Catalog 2002-2004, pp. 3-4).

The Information Systems and Technology Program also supports Strategic Initiative 1 (High Quality, Distinctive Undergraduate Programs) and Strategic Initiative 5 (Distance Education) (Old Dominion University Strategic Plan).

The goals established for the undergraduate Information Systems and Technology Major are intended to compliment and reinforce those that have been developed for the undergraduate Business Administration Program. They are consistent and in accordance with the curriculum goals prescribed in the IS '2002 – Model Curriculum and Guidelines for Undergraduate Degree Programs in Information Systems (Association of Computing Machinery (ACM), Association of Information Systems (AIS), and Association of Information Technology Professionals (AITP), 2002).

Intended Educational (Student) Outcomes, Methods for Assessment, Criteria for Success, Assessment Results, and Use of Results

Intended Outcome 1

Foster an understanding of computer architecture. This includes internal representation of data, processor design, memory and communication management, as well as software interfaces and architecture.

Method for Assessing Outcome 1 and Criterion for Success: All students will earn a score of at least 70% on the Comprehensive Examination for IT 217, Principles of Technology Architecture or the revised course IT 317, Principles of Technology Architecture. This examination will be developed, and student performance evaluated, by a panel of at least three undergraduate faculty in Information Systems and Technology. The questions comprising this examination will be designed to measure the learning objectives prescribed in Appendix 6, Course Unit Learning Goals, IS 2002 -- Model Curriculum and Guidelines for Undergraduate Degree Programs in Information Systems. (Comparisons will be made among traditional on-campus students and Weekend College students.) This review included the following semesters: Summer 2002, Fall 2002 and Spring 2003.

Summary of Assessment Data Collected for Outcome 1: For the students completing IT 217, Principles of Technology and Architecture or the revised version, IT 317 Principles of Technology Architecture, all students scored at least 70% on the Comprehensive Examination. These results reflect the fact that students are required to obtain a course grade of "C" or better to advance to upper level courses in Information Technology. IT 317 was offered on TELETECHNET during the Fall semester 2002. There were no differences in performance between on-campus and distance education students. Because this course was not offered on the weekend for the semesters under consideration, comparisons between on-campus and Weekend College students were not possible.

Use of Assessment Results from Intended Outcome 1 to Improve Academic Program: Although students successfully met the learning objectives, given the fact that IT 317 is a new course, student performance will be closely monitored during the next year to insure that the course continues to meet the criteria specified.

Intended Outcome 2

Develop an understanding of Information Systems concepts and the role of the Information Systems professional in business organizations.

Method for Assessing Outcome 2 and Criterion for Success: All students will earn a score of at least 70% on the Comprehensive Examination for IT 361, Information Systems Planning and Analysis. This examination will be developed, and student performance evaluated, by a panel of at least three undergraduate faculty in Information Systems. The questions comprising this examination will be designed to measure the learning objectives prescribed in Appendix 6, Course Unit Learning Goals, IS 2002 -- Model Curriculum and Guidelines for Undergraduate Degree Programs in Information Systems. (Comparisons will be made among traditional on-campus students and Weekend College students.) This review included the following semesters: Summer 2002, Fall 2002 and Spring 2003.

Summary of Assessment Data Collected for Outcome 2: Slightly more than 90% of the students taking the final exam in IT 361, Information Systems Planning and Analysis scored at least a 70. During the Spring Semester 2002, when it was offered on TELETECHNET, the on-campus students performed marginally better than their distance education counterparts. Upon further investigation, it was ascertained that not all the distance education students had completed the equivalent of IT 217, Principles of Technology Architecture prior to enrolling in IT 361.

Use of Assessment Results from Intended Outcome 2 to Improve Academic Program: The assessment results suggest some students either did not or could not take IT 217 or IT 317, Principles of Technology Architecture, prior to enrolling in IT 361, Information Systems Planning and Analysis. Two steps have been taken to remedy this situation. IT 317 was developed as a replacement of IT 217. As a 300 level class it can be offered on TELETECHNET, guaranteeing its availability to all students. It was offered for the first time in the Fall of 2002. Through enforcement of prerequisites, we will insure that students will have completed IT 317 prior to entering into IT 361.

Intended Outcome 3

Utilize formal software engineering methodologies and techniques to develop business applications that are typically found in the commercial environment.

Method for Assessing Outcome 3 and Criterion for Success: All students will earn a score of at least Satisfactory on the Software Engineering Project with at least 85% evaluated as Good or Excellent. A panel of at least three undergraduate faculty in Information Systems will specify the project requirements and evaluate student performance. The project requirements will be designed to measure the learning objectives prescribed in Appendix 6, Course Unit Learning Goals, IS 2002 -- Model Curriculum and Guidelines for Undergraduate Degree Programs in Information Systems. (Comparisons will be made among traditional on-campus students and Weekend College students.) This review included the following semesters: Summer 2002, Fall 2002 and Spring 2003.

Summary of Assessment Data Collected for Outcome 3: For the semesters under review 93% of the students enrolled in IT 370, Enterprise Solutions with C++, met the criteria specified. The Department is in the process of replacing IT 370 with IT 310, GUI Programming with C++. For the Fall Semester 2002, this new course was offered for the first time as a TELETEHNET class. Because of extremely low enrollment, comparisons between campus and off-campus sections would not be valid. For the period under consideration, there were no Weekend sections.

Alternate Method for Assessing Outcome 3 and Criterion for Success: All students participating in an internship that involves software design, development, and implementation will be rated as Satisfactory or higher by the site supervisor, and 85% will be rated as Good to Excellent.

Summary of Assessment Data Collected, Alternate Method for Outcome 3: There were only five student doing significant software design, development and implementation as part of their internship experience. In all cases the were rated Very Good or Excellent.

Use of Assessment Results from Intended Outcome 3 to Improve Academic Program: Because of these and other data related to software engineering, the software development portion of the degree program has been increased from 7 credit hours to 9 credit hours.

Intended Outcome 4

Graduates should demonstrate knowledge of systems development methodologies. Such knowledge of systems analysis and design principles should enable them to solve enterprise-wide managerial and organizational problems.

Method for Assessing Outcome 4 and Criterion for Success: All students will earn a score of at least 70% on the Comprehensive Examination for IT 473, Information Systems Design, Development, and Implementation. This examination will be developed, and student performance evaluated, by a panel of at least three undergraduate faculty in Information Systems. The questions comprising this examination will be designed to measure the learning objectives prescribed in Appendix 6, Course Unit Learning Goals, IS 2002 -- Model Curriculum and Guidelines for Undergraduate Degree Programs in Information Systems. (Comparisons will be made among traditional on-campus students and Weekend College students.) This review included the following semesters: Summer 2002, Fall 2002 and Spring 2003.

Summary of Assessment Data Collected for Outcome 4: Nearly 97% of the students enrolled in IT 473, Information Systems Design, Development and Implementation, earned at least a 70 on the Comprehensive Final Exam. Because this course was not offered on the weekend or TELETECHNET for the semester under consideration, comparisons between on-campus, Weekend College and TELETECHNET students were not possible.

Alternate Method for Assessing Outcome 4 and Criterion for Success: All students participating in an internship that involves systems analysis and design will be rated as Satisfactory or higher by the site supervisor, and 85% will be rated as Good to Excellent.

Summary of Assessment Data Collected, Alternate Method for Outcome 4: The three students who indicated that a significant component of their internship or cooperative education experience involved systems design, development and implementation. In both cases they were rated as Excellent by the site supervisor.

Use of Assessment Results from Intended Outcome 4 to Improve Academic Program: The assessment data indicate that the students are well prepared when they enter IT 473 and complete the course with relatively little difficulty.

Intended Outcome 5

Provide a conceptual framework for database design and implementation. Included are modeling of data relationships, and the security and protection of information in a shared environment.

Method for Assessing Outcome 5 and Criterion for Success: All students will earn a score of at least 70% on the Comprehensive Examination for IT 450, Database Concepts. This examination will be developed, and student performance evaluated, by a panel of at least three undergraduate faculty in Information Systems. The questions comprising this examination will be designed to measure the learning objectives prescribed in Appendix 6, Course Unit Learning Goals, IS 2002 -- Model Curriculum and Guidelines for Undergraduate Degree Programs in Information Systems. (Comparisons will be made among traditional on-campus students and Weekend College students.) This review included the following semesters: Summer 2002, Fall 2002 and Spring 2003.

Summary of Assessment Data Collected for Outcome 5: For the semesters under consideration, only 6% of the students enrolled in IT 450, Database Concepts did not receive at least a 70 on the Comprehensive Examination. Because this course was not offered on the weekend or TELETECHNET for the semester under consideration, comparisons between on-campus, Weekend College and TELETECHNET students were not possible.

Alternate Method for Assessing Outcome 5 and Criterion for Success: All students participating in an internship that involves database design, development, and implementation will be rated as Satisfactory or higher by the site supervisor, and 85% will be rated as Good to Excellent.

Summary of Assessment Data Collected, Alternate Method for Outcome 5: The six students completing an internship or cooperative education experience with a significant Database component received an evaluation of Excellent by the site supervisor.

Alternate Method for Assessing Outcome 5 and Criterion for Success: 80% of those taking the Oracle Certification Exam should earn a passing score.

Summary of Assessment Data Collected, Alternate Method for Outcome 5: While there are students who have taken one or more of the certification exams, none have finished the complete sequence that would lead to the Oracle Database Administrator Certification. It should be noted that were exams were taken the success rate was over 94%.

Use of Assessment Results from Intended Outcome 5 to Improve Academic Program: The results suggest that the database course at taught is meeting the objectives. It should be noted that for the period under review there were four different instructors, with not significant difference between student outcomes.

Intended Outcome 6

Provide in-depth knowledge of data communications and networking requirements, including networking and telecommunications methods, technologies, hardware, and software.

Method for Assessing Outcome 6 and Criterion for Success: All students will earn a score of at least 70% on the Comprehensive Examination for IT 415, Business Telecommunications and Networks. This examination will be developed, and student performance evaluated, by a panel of at least three faculty in Information Systems and Technology. The questions comprising this examination will be designed to measure the learning objectives prescribed in Appendix 6, Course Unit Learning Goals, IS 2002 -- Model Curriculum and Guidelines for Undergraduate Degree Programs in Information Systems. (Comparisons will be made among traditional on-campus students and Weekend College students.) This review included the following semesters: Summer 2002, Fall 2002 and Spring 2003.

Summary of Assessment Data Collected for Outcome 6: Over 96% of students completing IT 415, Business Telecommunications and Networks received at least a 70 on the Comprehensive Examination. There were no appreciable differences between on-campus, Weekend College and TELETECHNET students.
Alternate Method for Assessing Outcome 6 and Criterion for Success: All students participating in an internship that involves network design, implementation, and maintenance will be rated as Satisfactory or higher by the site supervisor, and 85% will be rated as Good to Excellent.
Summary of Assessment Data Collected, Alternate Method for Outcome 6: For the semesters under review, there were eight students participating in an internship of cooperative education experience that involved a significant telecommunications component.
Alternate Method for Assessing Outcome 6 and Criterion for Success: 80% of those taking the Microsoft Certified Systems Engineer (Windows 2000) Exam should earn a passing score.
Summary of Assessment Data Collected, Alternate Method for Outcome 6: While there are students who have taken one or more of the certification exams, none have finished the complete sequence that would lead to the Microsoft Certified Systems Engineer (Windows 2000) Certification. It should be noted that were exams were taken the success rate was over 98%.
Use of Assessment Results from Intended Outcome 6 to Improve Academic Program: These assessment results suggest the material and the method of presentation are effective.